IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
SHERMAN DIVISION

WAPP TECH LIMITED PARTNERSHIP and WAPP TECH CORP.,	§	
Plaintiffs,	§	
v.	§	**Civil Action No. 4:21-cv-00670**
BANK OF AMERICA N.A.	§	**JURY TRIAL DEMANDED**
Defendant.	§	

PLAINTIFFS' ORIGINAL COMPLAINT

Plaintiffs Wapp Tech Limited Partnership and Wapp Tech Corp. ("Wapp" or "Plaintiffs") hereby submit this Complaint for patent infringement against Defendant Bank of America, N.A. ("Defendant" or "Bank of America").

THE PARTIES

1. Plaintiff Wapp Tech Limited Partnership is a Delaware limited partnership organized and existing under the laws of the State of Delaware, and its registered agent for service of process in Delaware is Corporations & Companies, Inc. (CorpCo), 910 Foulk Road, Suite 201 Wilmington, Delaware 19803.

2. Plaintiff Wapp Tech Corp. is a body corporate organized and existing under the laws of the Province of Alberta, Canada, and its registered agent for service of process in Delaware is Corporations & Companies, Inc. (CorpCo), 910 Foulk Road, Suite 201 Wilmington, Delaware 19803.

3. On information and belief, Defendant Bank of America, N.A. is a federally chartered national banking association organized and existing under the laws of the United States, having a principal place of business at 100 North Tryon Street, Charlotte, NC 28255.

JURISDICTION AND VENUE

4. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a) because this action arises under the patent laws of the United States, 35 U.S.C. §§ 101 *et seq*. Venue is proper in this federal district pursuant to 28 U.S.C. §1400(b).

5. The Court has personal jurisdiction over Defendant, in part, because Defendant has minimum contacts within the State of Texas; Defendant has purposefully availed itself of the privileges of conducting business in the State of Texas; Defendant regularly conducts business within the State of Texas; and Plaintiffs' causes of action arise directly from Defendant's business contacts and other activities in the State of Texas, including on information and belief, by virtue of Defendant's infringement in the State of Texas.[1] Further, this Court has general jurisdiction over Defendant, in part, due to its continuous and systematic contacts with the State of Texas. Further, on information and belief, Defendant is subject to the Court's jurisdiction, in part, because Defendant has committed patent infringement in the State of Texas. Defendant has regular and established places of business in this district. Defendant is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial and pervasive business in this State and judicial district, including: (i) at least part of its infringing activities alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent conduct, and/or deriving substantial revenue from goods sold and services provided to Texas residents.

[1] For example, Defendant advertises job openings for Mobile Application Developers in Plano, TX. https://ghr.wd1.myworkdayjobs.com/Lateral-US/job/Plano/Mobile-Application-Developer_21040723-2 (accessed August 25, 2021).

6. On information and belief, Defendant conducts business operations throughout the State of Texas, and within the Eastern District of Texas. Defendant has multiple locations throughout the State of Texas, and within the Eastern District of Texas, including banking facilities located at:

- 5701 Legacy Drive, Plano, TX 75024
- 5952 West Parker Road, Plano, TX 75093
- 1925 Dallas Parkway, Plano, TX 75093
- 3760 Highway 121, Plano, TX 75025
- 3260 Preston Road, Plano, TX 75093
- 7001 Independence Parkway, Plano, TX 75025
- 2015 Coit Road, Plano, TX 75075
- 2400 North Central Expressway, Plano, TX 75074
- 113 East FM 544, Murphy, TX 75094

FACTUAL ALLEGATIONS

Development of the Patented Inventions

7. The inspiration for the patented innovations described herein originates from application development work by the named inventor associated with the 2006 FIFA World Cup. Through his development work associated with this international sporting event, the named inventor of the patents-in-suit developed and created a first-of-its-kind application performance engineering platform. The named inventor first received his inspiration for the inventions while developing an application for live sporting events, including the 2006 FIFA World Cup. He realized that developing applications to support widely viewed global events, such as the World Cup, presented unique challenges for application developers—these applications would be used

by millions of users on a wide variety of devices having different attributes, and connecting to a wide variety of different networks with wildly different performance characteristics. To address these challenges, the named inventor invented an application authoring environment especially suited for creating applications for mobile devices. The invention enables developers to create the applications and ensure they will function correctly on a variety of mobile devices with varying device and network performance characteristics by emulating and monitoring specific characteristics of the devices and the networks to which they could connect. The named inventor realized that such flexibility would be necessary to create mobile applications that would work satisfactorily in the plethora of scenarios to which real users would subject them.

8. The named inventor filed his initial provisional application (No. 60/689,101) on June 10, 2005. He subsequently filed non-provisional patent applications claiming multiple different aspects of his application authoring platform, including applications which issued as U.S. Patent Nos. 8,924,192 (filed on November 9, 2012), 9,298,864 (filed on November 19, 2013), 9,971,678 (filed on December 23, 2014), 10,353,811 (filed on May 14, 2018), and 10,691,579 (filed on May 14, 2018).

9. These patented innovations have become core to modern mobile application development and have been cited as prior art against later patent applications from industry leaders including Apple, Google, Intel, and Microsoft. For example, on February 1, 2013, the USPTO rejected the claims submitted in an Apple patent application based on Plaintiffs' invention.

Authoring Mobile Applications

10. Mobile applications are now typically created in an authoring environment (also called an integrated development environment or "IDE") tailored to meet challenges specific to mobile application development. The two most popular modern authoring environments are

Apple's Xcode (used to author mobile applications for iOS devices such as iPhones and iPads) and Google's Android Studio (used to author mobile applications for smart phones and tablets running Google's Android operating system).

11. Authoring environments include the tools needed to create a mobile application and then verify that it will function correctly on a variety of mobile devices and under a variety of network conditions. For example, Xcode and Android Studio include (1) an editor window where the developer will write the code, (2) a compiler that will transform the code into an application that will run on a mobile device, (3) tools to execute the compiled application on a variety of mobile devices or emulators so the application's performance can be verified on the selected devices and under a variety of network conditions, and (4) tools to monitor performance of the application while it is running.

Xcode

12. Apple's Xcode includes the features noted above, including the editor window reproduced below:

https://developer.apple.com/documentation/xcode/creating-organizing-and-editing-source-files

(accessed August 12, 2021).

13. Xcode also includes a compiler that will transform the code into an application that will run on a mobile device:

Overview

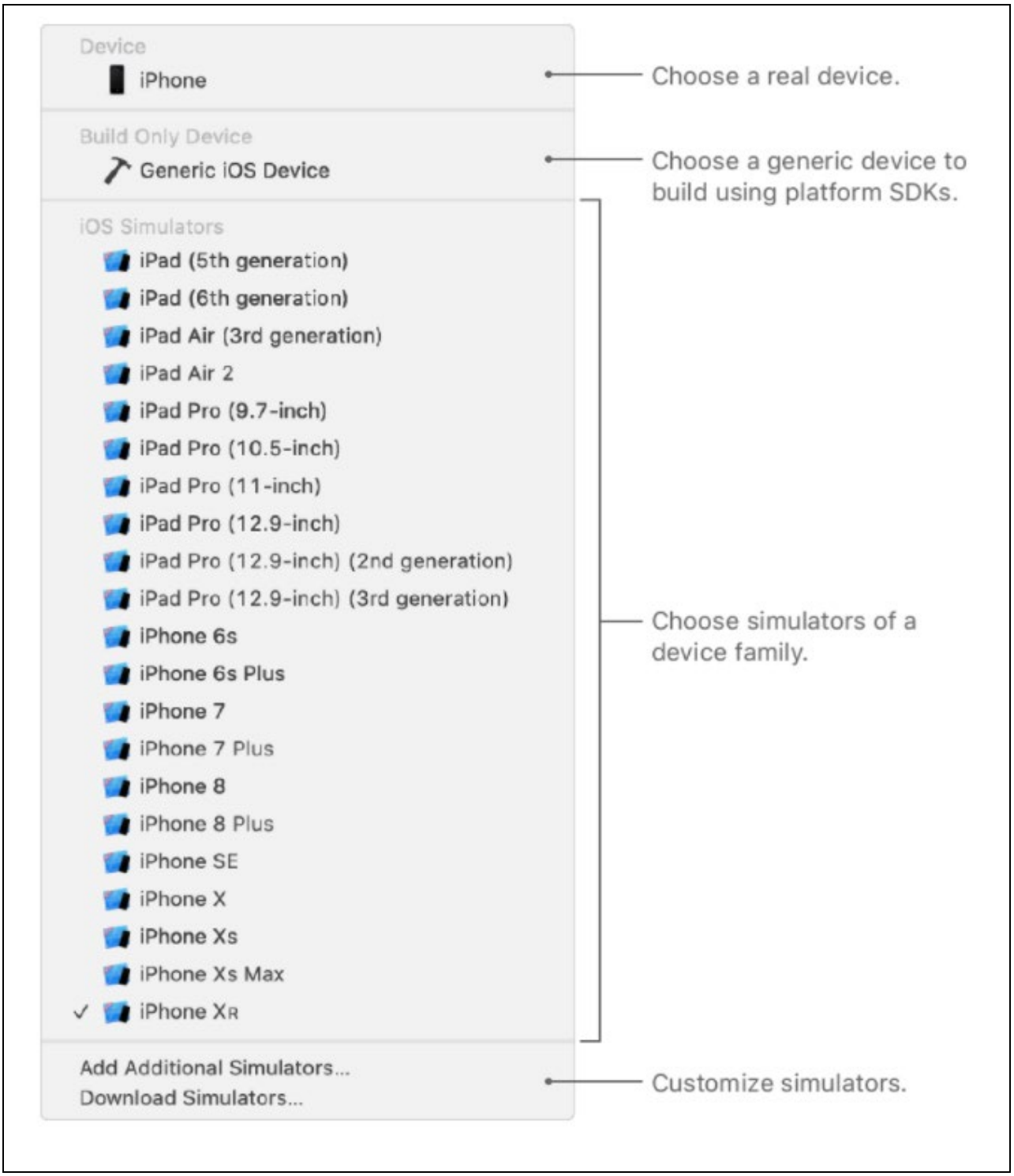
Reducing build times by even a few seconds can have a significant impact over the course of development. Xcode does everything possible to build your code as fast as possible. It parallelizes build tasks and takes advantage of all available resources to output a finished product. However, you can help Xcode by making sure you're not creating unnecessary work for the compiler.

Over the years, Xcode's compiler has introduced optimizations to speed up compile times. Most of these optimizations are automatic, but some require you to make small changes to your code. In addition, projects that support both Objective-C code to Swift may require additional optimizations to ensure fast compile times.

https://developer.apple.com/documentation/xcode/improving-build-efficiency-with-good-coding-practices (accessed August 12, 2021).

14. Xcode further includes tools to execute the compiled application on a variety of mobile devices or emulators so the application's performance can be verified on the selected devices and under a variety of network conditions. Xcode provides the ability to transfer the compiled application to a physical device for verification. However, developers are unlikely to have access to a physical version of every device on which they wish to verify the mobile application. Therefore, Xcode also provides the ability to transfer the compiled application to an emulated/simulated device, running on a computer, which emulates characteristics of a physical device:

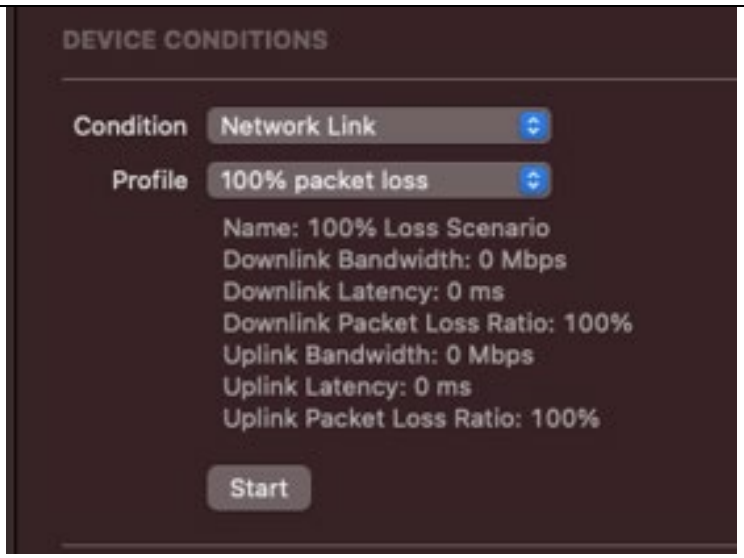
After you create a project, you can build and run your app on a simulated or real device without needing to lay out the user interface or write code. You may connect a real device to your Mac using a cable, or for iOS or tvOS apps, connect it over WiFi after you pair it with Xcode. For macOS apps, choose a scheme, then click the Run button in the toolbar.



https://developer.apple.com/documentation/xcode/running-your-app-in-the-simulator-or-on-a-device (accessed August 12, 2021).

15. Developers can verify the compiled applications under a variety of network

conditions. Network properties such as bandwidth, packet loss, and latency can be simulated in order to verify the applications operate properly under a variety of network conditions to which they may be subjected:

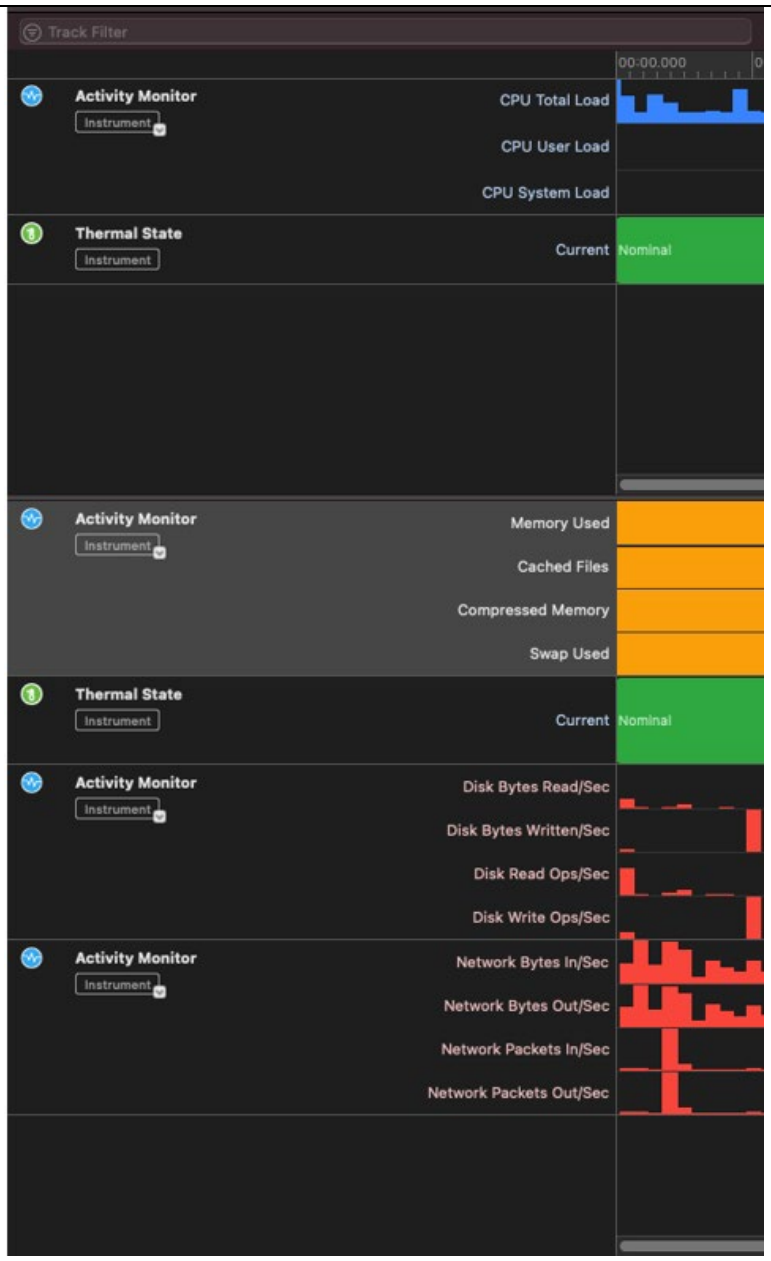


Xcode: Device Conditions

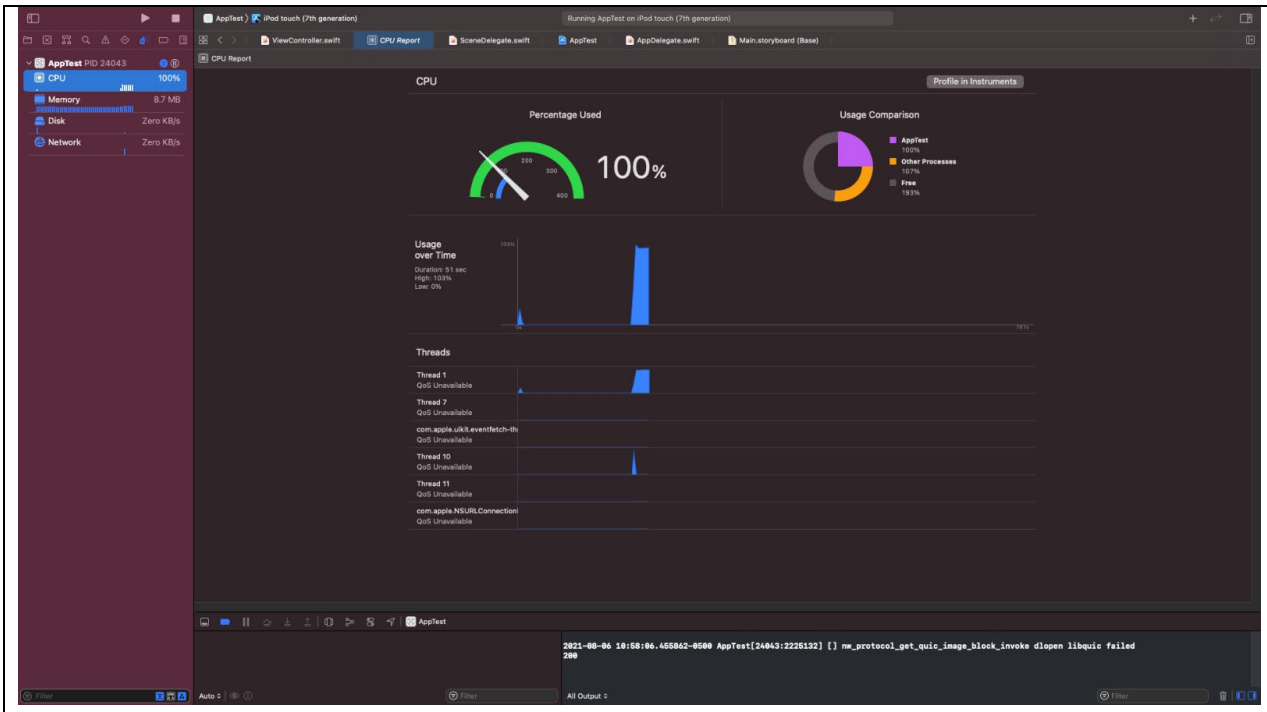
Xcode: Network Link Conditioner Utility

16. Xcode also includes tools to monitor the performance of an application while it is running. Xcode provides tools to monitor the mobile application, regardless of whether it is

executing on a physical device or an emulated device. Properties such as network characteristics, processor usage, memory usage, and disk usage can be monitored and displayed to enable the developer to optimize the performance of the mobile application:

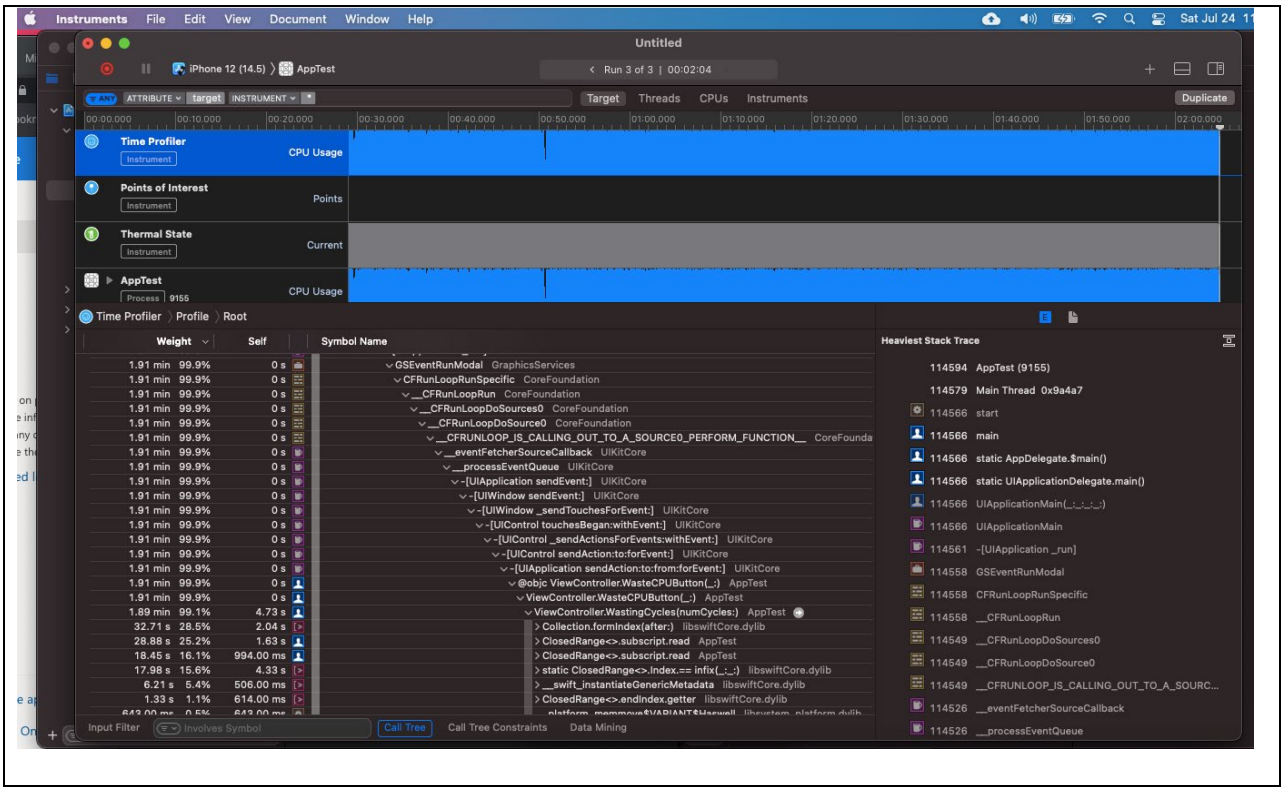


XCode: Instruments



Xcode: CPU Report

17. Xcode can also be used to correspond the utilization of the displayed resources with the functions of the application responsible for that utilization, for example by using the Time Profiler:



Xcode: Time Profiler

18. The above features allow a developer to write mobile application code targeting a variety of device models and verify its performance in an efficient manner.

Android Studio

19. Google's Android Studio includes the features noted above, including the editor window illustrated below:

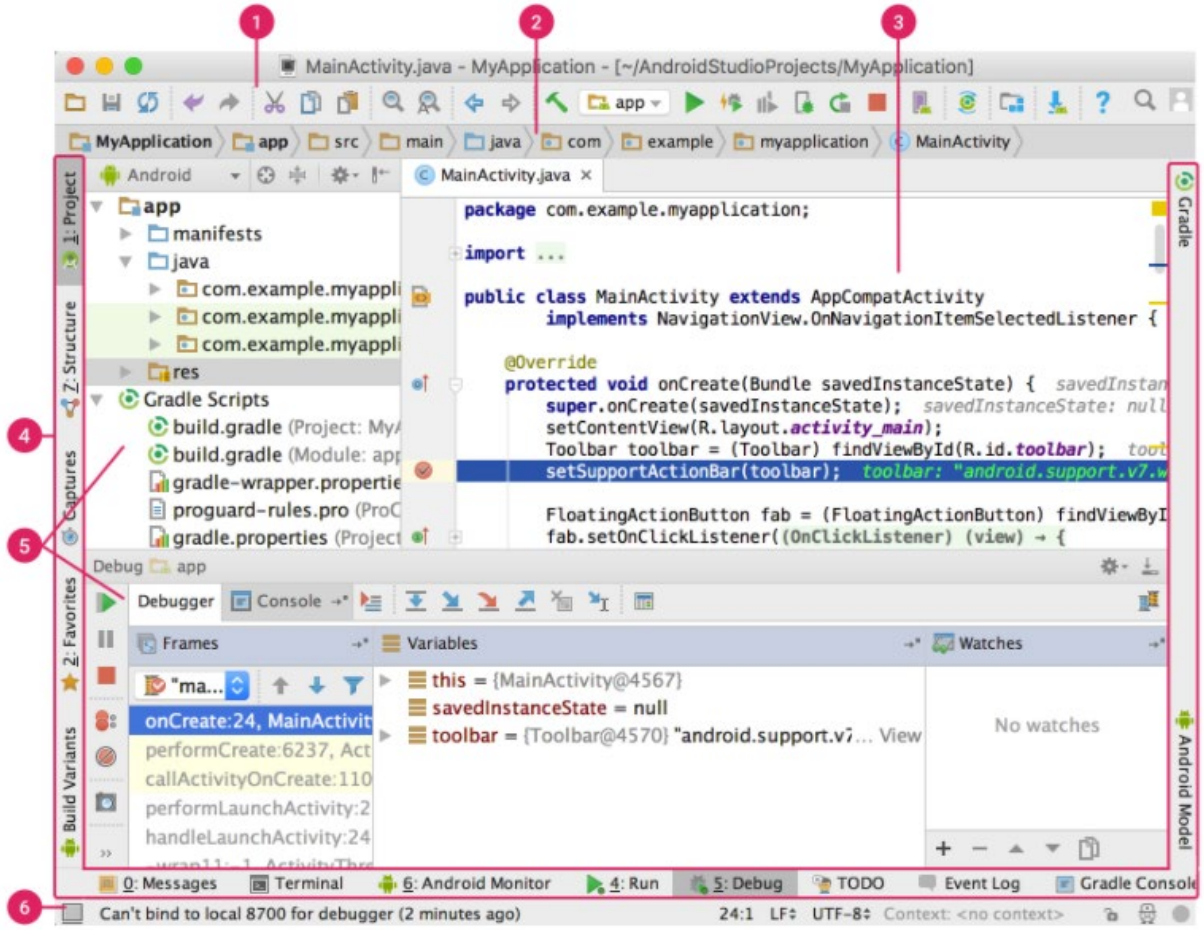


Figure 3. The Android Studio main window.

https://developer.android.com/studio/intro (last visited 7/27/2021).

20. Android Studio also includes a compiler that will transform the code into an application that will run on a mobile device.

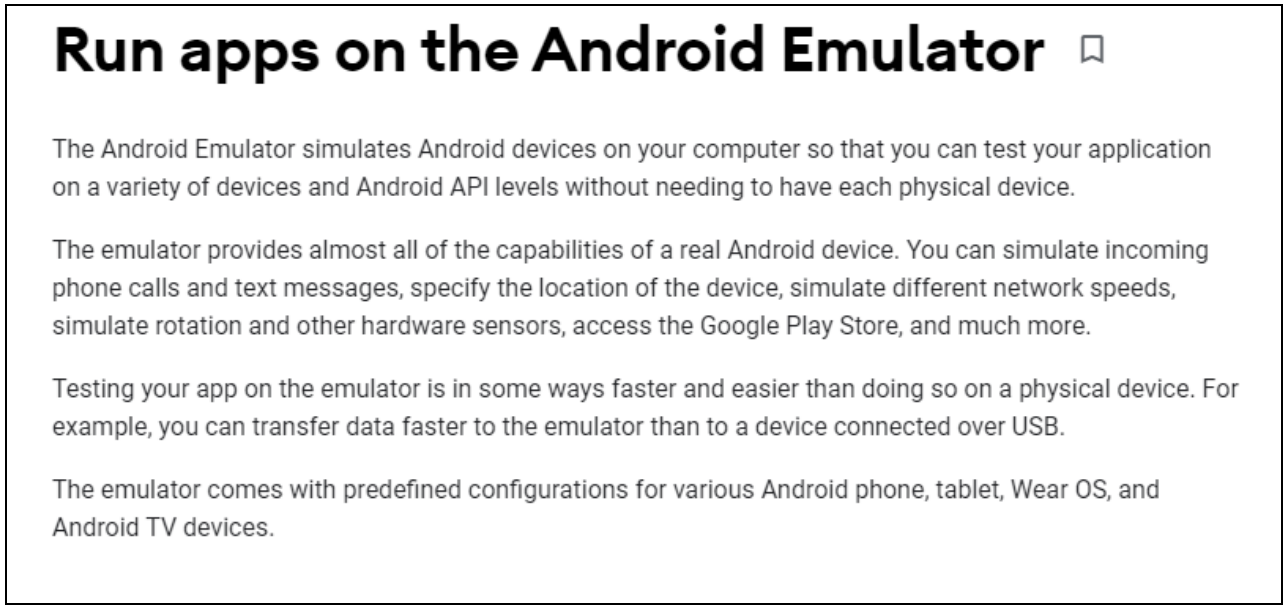
Build your project

The **Run** ▶ button builds and deploys your app to a device. However, to build your app to share or upload to Google Play, you'll need to use one of the options in the **Build** menu to compile parts or all of your project. Before you select any of the build options listed in table 1, make sure you first select the build variant you want to use.

https://developer.android.com/studio/run (last visited 8/18/2021).

21. Android Studio further includes tools to execute the compiled application on a

variety of mobile devices or device models (Android Virtual Devices) so that the application's performance can be verified on the selected devices under a variety of network conditions. Android Studio provides the ability to transfer the compiled application to a physical device for verification. However, developers are unlikely to have access to a physical version of every device on which they wish to verify the mobile application. Therefore, Android Studio provides the ability to transfer the compiled application to an emulated device running on a computer, which emulates the characteristics of a physical device:



Run apps on the Android Emulator

The Android Emulator simulates Android devices on your computer so that you can test your application on a variety of devices and Android API levels without needing to have each physical device.

The emulator provides almost all of the capabilities of a real Android device. You can simulate incoming phone calls and text messages, specify the location of the device, simulate different network speeds, simulate rotation and other hardware sensors, access the Google Play Store, and much more.

Testing your app on the emulator is in some ways faster and easier than doing so on a physical device. For example, you can transfer data faster to the emulator than to a device connected over USB.

The emulator comes with predefined configurations for various Android phone, tablet, Wear OS, and Android TV devices.

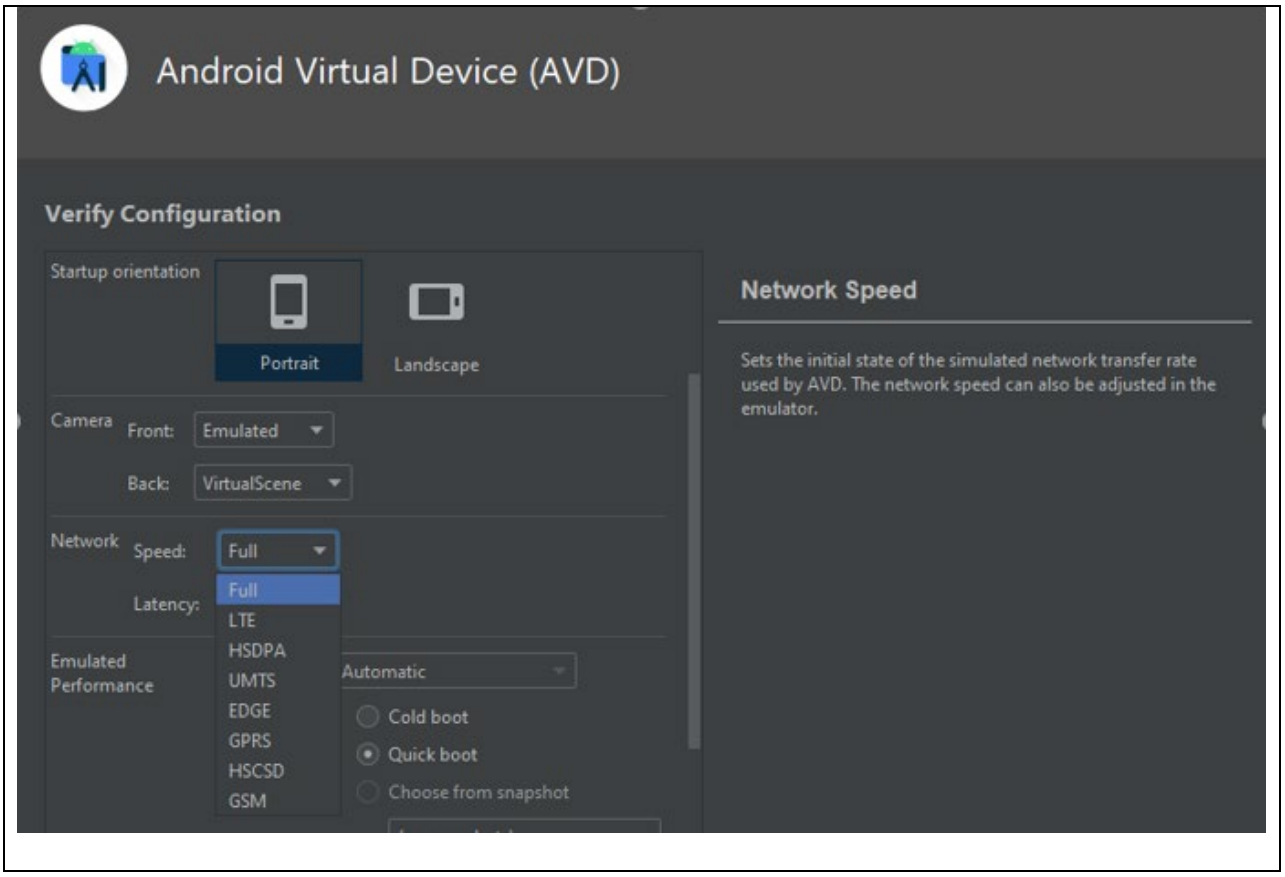
https://developer.android.com/studio/run/emulator (last visited 8/18/2021).

Run apps on a hardware device

When building an Android app, it's important that you always test your app on a real device before releasing it to users. This page describes how to set up your development environment and Android device for testing and debugging over an *Android Debug Bridge (ADB)* connection.

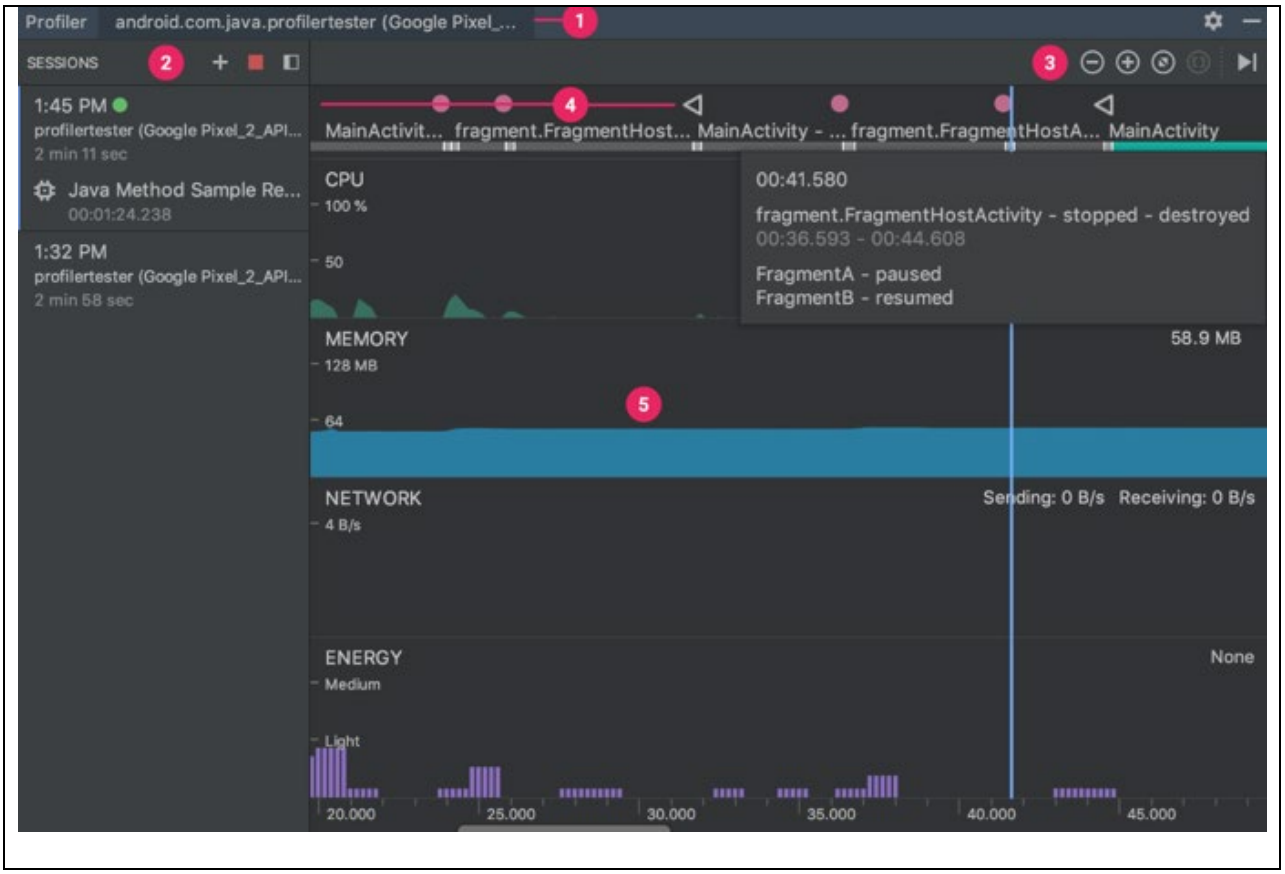
https://developer.android.com/studio/run/device (last visited 8/18/2021).

22. Developers can verify the compiled applications under a variety of network conditions. Network properties such as speed and latency can be simulated in order to better verify that the application performs appropriately under a variety of network conditions to which it may be subjected.



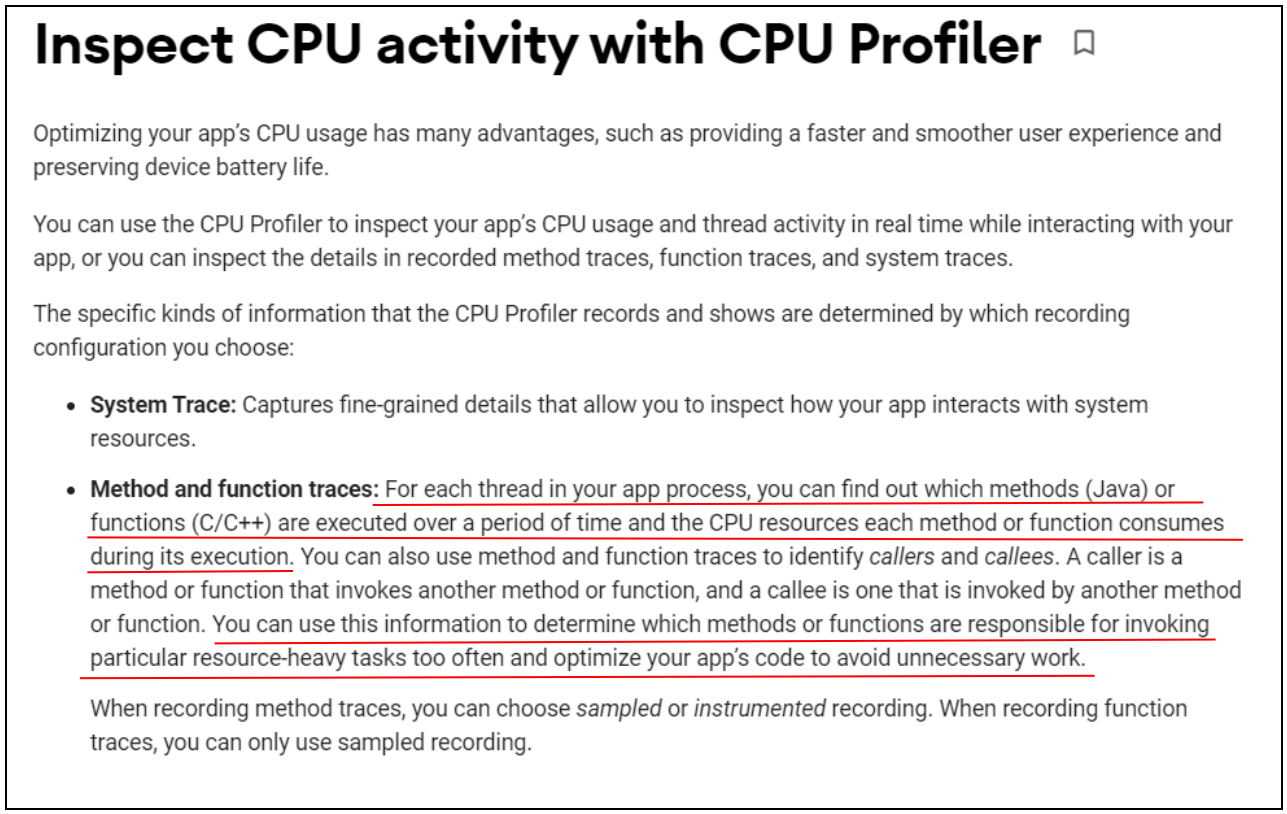
Android Studio: Android Virtual Device Manager (showing Network Speed options).

23. Android Studio includes tools (profilers) to monitor performance of the application while it is running. Android Studio provides tools to monitor the mobile application, regardless of whether it is executing on a physical device or an emulated device. Android Studio includes four profilers providing such monitoring capabilities: CPU, Memory, Network, and Energy.



https://developer.android.com/studio/profile/android-profiler (last visited 7/27/2021).

24. Android Studio can also be used to correspond the utilization of the displayed resources with the functions of the application responsible for the utilization:



Inspect CPU activity with CPU Profiler

Optimizing your app's CPU usage has many advantages, such as providing a faster and smoother user experience and preserving device battery life.

You can use the CPU Profiler to inspect your app's CPU usage and thread activity in real time while interacting with your app, or you can inspect the details in recorded method traces, function traces, and system traces.

The specific kinds of information that the CPU Profiler records and shows are determined by which recording configuration you choose:

- **System Trace:** Captures fine-grained details that allow you to inspect how your app interacts with system resources.
- **Method and function traces:** For each thread in your app process, you can find out which methods (Java) or functions (C/C++) are executed over a period of time and the CPU resources each method or function consumes during its execution. You can also use method and function traces to identify *callers* and *callees*. A caller is a method or function that invokes another method or function, and a callee is one that is invoked by another method or function. You can use this information to determine which methods or functions are responsible for invoking particular resource-heavy tasks too often and optimize your app's code to avoid unnecessary work.

  When recording method traces, you can choose *sampled* or *instrumented* recording. When recording function traces, you can only use sampled recording.

https://developer.android.com/studio/profile/cpu-profiler (accessed on August 18, 2021) (underlining added).

25. The above features allow a developer to write the application code and verify its performance in an efficient manner.

The Prevalence of Mobile Banking Applications

26. Smartphones and tablets have become ubiquitous and have created demand for mobile applications tailored to run on those devices. There are more than 1 billion active iPhone users and almost 3 billion Android users.[2] Apple and Google each provide their own app store, which enables users to easily find and download mobile applications developed by third parties.[3] Mobile applications developed on either Xcode (for Apple) or Android Studio (for Google) can be

[2] https://www.businessofapps.com/data/apple-statistics/ (accessed August 12, 2021); https://www.businessofapps.com/data/android-statistics/ (accessed August 12, 2021).
[3] https://www.apple.com/app-store/ (accessed August 12, 2021); https://play.google.com/store/apps/?hl=en_US&gl=US (accessed August 12, 2021).

submitted to the respective app store *if* the applications meet certain performance criteria.[4] In order to develop mobile applications that meet the criteria set out by Apple and Google, developers must utilize the authoring tools in Xcode or Android Studio that were first pioneered by the named inventor. If the mobile applications do not satisfy certain performance and debugging standards, then both Apple and Google will reject the mobile application for distribution in their respective app stores.

27. The availability of mobile applications has had a drastic impact on the banking industry. Retail bank branch usage declined by 35% overall from 2015 to 2020, while retail banking usage among 18 to 24 year-olds declined by nearly 50%.[5] At the same time, the number of digital banking interactions increased by 15%,[6] and the total number of Bank of America mobile App users increased from 18.7 million users in 2015 to 30.78 million users in 2020, a 39.3% increase (*see, e.g.,* https://www.statista.com/statistics/592965/mobile-banking-users-of-bank-of-america). The COVID-19 pandemic has also increased the importance of mobile banking—"[a]ccording to a 2020 Deloitte survey of 2,000 Americans, the most important factor influencing a client's likelihood of switching banks during COVID-19 is a poorly designed mobile platform."[7] Overall, more than 90% of banking customers under the age of 40 utilize mobile banking.[8] Mobile banking app features are regarded as one of the "key attractions" for younger customers selecting a new bank.[9] In a recent study in the UK, Millennials now trust their App more than a teller at a brick and mortar bank, and 27% of Millennials are now completely

[4] https://developer.apple.com/app-store/review/guidelines/ (accessed August 12, 2021); https://developer.android.com/distribute/best-practices/launch/launch-checklist (accessed August 12, 2021).
[5] https://deloitte.wsj.com/articles/how-banks-can-redefine-the-digital-experience-01628093439?mod=searchresults_pos18&page=1 (accessed on August 16, 2021).
[6] *Id.*
[7] *Id.*
[8] https://www.forbes.com/sites/ronshevlin/2021/07/29/mobile-banking-adoption-has-skyrocketed-but-so-have-fraud-concerns-what-can-banks-do/?sh=100d3cf65dc6 (accessed on August 16, 2021)
[9] https://thefinancialbrand.com/119897/bank-of-america-grabbing-1-in-3-gen-zs-and-millennials-with-mobile/ (accessed on August 16, 2021).

reliant on a mobile Banking App.[10] Other studies indicate that in the next 3-4 years, 33% of Millennials may choose to completely abandon traditional brick and mortar Banking in lieu of an App.[11] With Millennials graduating from College, becoming professionals and now set to make up 50% of the work force by 2020[12], the convergence of the above two factors will change the core model of Banking for generations to come.

28. Given that mobile applications are now the primary method through which many customers interact with their bank, a bank's mobile application that is known to have "glitches" or "bugs" is likely to steer potential customers to other banks with better mobile application support.[13] Millennials, who make up an ever increasing percentage of all mobile users, are much less forgiving concerning their application experience and will unapologetically delete an app just because the logo is not appealing.[14] Similarly, a mobile banking application that performs slowly when trying to complete transactions is likely to steer potential customers away.[15] Even mobile application characteristics as simple as poor screen readability on a user's device can drive away potential customers.[16]

29. All of this underscores the need for banks to not only provide mobile applications, but to verify that those mobile applications will provide fast, bug-free performance on the wide variety of mobile devices used by customers and within a wide variety of environmental (e.g., network) conditions presented by mobile customers. To accomplish that goal, mobile application

[10] https://www.salesforce.com/blog/2016/03/stats-about-millennials-mobile-banking.html
[11] https://www.temenos.com/en/market-insight/universal-insight/33-of-millennials-believe-they-wont-need-a-bank-at-all-in-5-years-we-think-different/
[12] Id.
[13] https://www.forbes.com/advisor/banking/how-to-choose-mobile-banking-personal-finance-app/ (accessed August 16, 2021)
[14] https://www.comscore.com/Insights/Blog/5-Interesting-Facts-About-Millennials-Mobile-App-Usage-from-The-2017-US-Mobile-App-Report (accessed June 27, 2018)
[15] https://www.forbes.com/sites/ronshevlin/2021/03/29/new-research-identifies-the-most-critical-mobile-banking-features/?sh=246c1f418519 (accessed August 16, 2021); https://thefinancialbrand.com/108788/mobile-banking-app-customer-experience-user-security-click/ (accessed August 16, 2021)
[16] https://thefinancialbrand.com/108788/mobile-banking-app-customer-experience-user-security-click/ (accessed August 16, 2021)

developers must use specialized authoring tools that accommodate the unique demands presented by a wide variety of mobile devices across a vast array of global carriers and networks.

Patents-in-Suit

30. Defendant is infringing at least the following patents: (1) U.S. Patent No. 8,924,192; (2) U.S. Patent No. 9,298,864; (3) U.S. Patent No. 9,971,678; (4) U.S. Patent No. 10,353,811; and (5) U.S. Patent No. 10,691,579 (collectively the "Patents-in-Suit").

U.S. Patent No. 8,924,192

31. On Dec. 30, 2014, the United States Patent and Trademark Office ("USPTO") duly and legally issued United States Patent No. 8,924,192 ("the '192 Patent") entitled "Systems Including Network Simulation for Mobile Application Development and Online Marketplaces for Mobile Application Distribution, Revenue Sharing, Content Distribution, or Combinations thereof" on an application filed Nov. 9, 2012, United States Patent Application Ser. No. 13/673,692. The '192 Patent is a continuation of United States Patent Application Ser. No. 12/759,543, filed Apr. 13, 2010, which is a continuation of United States Patent Application Ser. No. 11/449,958, filed Jun. 9, 2006, and issued as United States Pat. No. 7,813,910, on Oct. 12, 2012, which application claims priority to United States Patent Application Ser. No. 60/689,101 filed Jun. 10, 2005.

32. The '192 Patent is presumed valid and enforceable.

33. Plaintiffs are the owners of the '192 Patent.

34. The '192 Patent describes systems that address technical problems related to authoring mobile applications and verifying their performance on a variety of devices and networks. *See, e.g.*, '192 Patent at Fig. 7, 9:46-10:29, 14:19-23.

35. Technological improvements described and claimed in the '192 Patent were not conventional, well-known, or routine at the time of their respective inventions but involved novel

and non-obvious approaches to problems and shortcomings prevalent in the art at the time. *See, e.g.*, '192 Patent at 1:23-2:8.

36. The written description of the '192 Patent supports each of the elements of the claims, allowing a person of ordinary skill in the art ("POSITA") to understand what the elements cover and how the non-conventional and non-routine combination of claim elements differed markedly from and improved upon what may have been considered conventional, generic, or routine. *See, e.g.*, '192 Patent at Fig. 7, 9:46-10:29, 14:19-23.

37. The '192 Patent represents a substantial technical improvement in the area of authoring mobile applications, as demonstrated by its frequent citation. Plaintiffs' mobile authoring innovations have been cited against a number of industry-leading companies as prior art by the United States Patent and Trademark Office and the World Intellectual Property Organization, including citations against Google.[17]

U.S. Patent No. 9,298,864

38. On March 29, 2016, the USPTO duly and legally issued United States Patent No. 9,298,864 (the "'864 Patent") entitled "System Including Network Simulation for Mobile Application Development" on an application filed Nov. 19, 2013, United States Patent Application Ser. No. 14/084,321. The '864 Patent is a divisional of United States Application Ser. No. 12/705,913, filed Feb. 15, 2010 (now United States Pat. No. 8,589,140), which claims priority to United States Application Ser. No. 61/152,934, filed Feb. 16, 2009, and is a continuation-in-part of United States Application Ser. No. 11/449,958, filed Jun. 9, 2006 (now U.S. Pat. No. 7,813,910), which claims priority to United States Application Ser. No. 60/689,101, filed Jun. 10, 2005.

39. The '864 Patent is presumed valid and enforceable.

[17] *See* https://patents.google.com/patent/US8924192B1/en (accessed August 16, 2021).

40. Plaintiffs are the owners of the '864 Patent.

41. The '864 Patent describes systems that address technical problems related to authoring mobile applications and verifying their performance on a variety of devices and networks. *See, e.g.*, '864 Patent at Fig. 7, 9:23-10:7, 13:66-14:3.

42. Technological improvements described and claimed in the '864 Patent were not conventional, well-known, or routine at the time of their respective inventions but involved novel and non-obvious approaches to problems and shortcomings prevalent in the art at the time. *See, e.g.*, '864 Patent at 1:18-2:7.

43. The written description of the '864 Patent supports each of the elements of the claims, allowing a POSITA to understand what the elements cover and how the non-conventional and non-routine combination of claim elements differed markedly from and improved upon what may have been considered conventional, generic, or routine. *See, e.g.*, '864 Patent at Fig. 7, 9:23-10:7, 13:66-14:3.

44. The '864 Patent represents a substantial technical improvement in the area of authoring mobile applications, as demonstrated by its frequent citation. Plaintiffs' mobile authoring innovations have been cited against a number of industry-leading companies as prior art by the United States Patent and Trademark Office and the World Intellectual Property Organization, including citations against IBM and Adobe.[18]

U.S. Patent No. 9,971,678

45. On May 15, 2018, the USPTO duly and legally issued United States Patent No. 9,971,678 (the "'678 Patent") entitled "Systems Including Device and Network Simulation for Mobile Application Development" on an application filed Dec. 23, 2014, United States Patent Application Ser. No. 14/581,475. The '678 Patent is a continuation of United States Patent

[18] *See* https://patents.google.com/patent/US9298864B2/en (accessed August 16, 2021).

Application Ser. No. 13/673,692, filed Nov. 9, 2012 and issued as United States Pat. No. 8,924,192, on Dec. 30, 2014, which is a continuation of United States Patent Application Ser. No. 12/759,543, filed April 13, 2010 and issued as United States Pat. No. 8,332,203, on Dec. 11, 2012, which is a continuation of United States Patent Application Ser. No. 11/449,958, filed Jun. 9, 2006 and issued as United States Pat. No. 7,813,910, on Oct. 12, 2010, which application claims priority to United States Patent Application Ser. No. 60/689,101 filed Jun. 10, 2005.

46. The ’678 Patent is presumed valid and enforceable.

47. Plaintiffs are the owners of the ’678 Patent.

48. The ’678 Patent describes systems that address technical problems related to authoring mobile applications and verifying their performance on a variety of devices and networks. *See, e.g.*, ’678 Patent at Fig. 7, 9:64-10:48, 14:4-9, 14:48-52.

49. Technological improvements described and claimed in the ’678 Patent were not conventional, well-known, or routine at the time of their respective inventions but involved novel and non-obvious approaches to problems and shortcomings prevalent in the art at the time. *See, e.g.*, ’678 Patent at 1:22-2:9.

50. The written description of the ’678 Patent supports each of the elements of the claims, allowing a POSITA to understand what the elements cover and how the non-conventional and non-routine combination of claim elements differed markedly from and improved upon what may have been considered conventional, generic, or routine. *See, e.g.*, ’678 Patent at Fig. 7, 9:64-10:48, 14:4-9, 14:48-52.

51. The ’678 Patent represents a substantial technical improvement in the area of authoring mobile applications, as demonstrated by its frequent citation. Plaintiffs’ mobile authoring innovations have been cited against a number of industry-leading companies as prior art

by the United States Patent and Trademark Office and the World Intellectual Property Organization, including citations against Amazon.[19]

U.S. Patent No. 10,353,811

52. On July 16, 2019, the USPTO duly and legally issued United States Patent No. 10,353,811 ("the '811 Patent") entitled "SYSTEM FOR DEVELOPING AND TESTING A MOBILE APPLICATION" on an application filed May 14, 2018, United States Patent Application Ser. No. 15/979,330. The '811 Patent is a continuation of U.S. patent application Ser. No. 14/581,475, filed Dec. 23, 2014, which is a continuation of U.S. patent application Ser. No. 13/673,692, filed Nov. 9, 2012, and issued as U.S. Pat. No. 8,924,192, on Dec. 30, 2014, which is a continuation of U.S. patent application Ser. No. 12/759,543, filed Apr. 13, 2010, and issued as U.S. Pat. No. 8,332,203, on Dec. 11, 2012, which is a continuation of U.S. patent application Ser. No. 11/449,958, filed Jun. 9, 2006, and issued as U.S. Pat. No. 7,813,910, on Oct. 12, 2010, which application claims priority to U.S. Patent Application No. 60/689,101 filed Jun. 10, 2005.

53. The '811 Patent is presumed valid and enforceable.

54. Plaintiffs are the owners of the '811 Patent.

55. The '811 Patent describes systems that address technical problems related to authoring mobile applications and verifying their performance on a variety of devices and networks. *See, e.g.*, '811 Patent at Fig. 7, 9:63-10:48, 14:4-9, 14:48-52.

56. Technological improvements described and claimed in the '811 Patent were not conventional, well-known, or routine at the time of their respective inventions but involved novel and non-obvious approaches to problems and shortcomings prevalent in the art at the time. *See, e.g.*, '811 Patent at 1:23-2:11.

57. The written description of the '811 Patent supports each of the elements of the

[19] *See* https://patents.google.com/patent/US9971678/en (accessed August 16, 2021).

claims, allowing a POSITA to understand what the elements cover and how the non-conventional and non-routine combination of claim elements differed markedly from and improved upon what may have been considered conventional, generic, or routine. *See, e.g.*, '811 Patent at Fig. 7, 9:63-10:48, 14:4-9, 14:48-52.

U.S. Patent No. 10,691,579

58. On June 23, 2020, the USPTO duly and legally issued United States Patent No. 10,691,579 ("the '579 Patent") entitled "SYSTEMS INCLUDING DEVICE AND NETWORK SIMULATION FOR MOBILE APPLICATION DEVELOPMENT" on an application filed March 28, 2016, United States Patent Application Ser. No. 15/083,186. The '579 Patent is a division of U.S. application Ser. No. 14/084,321, filed Nov. 19, 2013 (now U.S. Pat. No. 9,298,864), which claims priority to U.S. application Ser. No. 12/705,913, filed Feb. 15, 2010 (now U.S. Pat. No. 8,589,140), which claims priority to U.S. Application No. 61/152,934, filed Feb. 16, 2009, and is a continuation-in-part of U.S. application Ser. No. 11/449,958, filed Jun. 9, 2006 (now U.S. Pat. No. 7,813,910), which claims priority to U.S. Application No. 60/689,101, filed Jun. 10, 2005.

59. The '579 Patent is presumed valid and enforceable.

60. Plaintiffs are the owners of the '579 Patent.

61. The '579 Patent describes systems that address technical problems related to authoring mobile applications and verifying their performance on a variety of devices and networks. *See, e.g.*, '579 Patent at Fig. 7, 9:42-10:26, 13:48-53, 14:25-29.

62. Technological improvements described and claimed in the '579 Patent were not conventional, well-known, or routine at the time of their respective inventions but involved novel and non-obvious approaches to problems and shortcomings prevalent in the art at the time. *See,*

e.g., '579 Patent at 1:20-2:11.

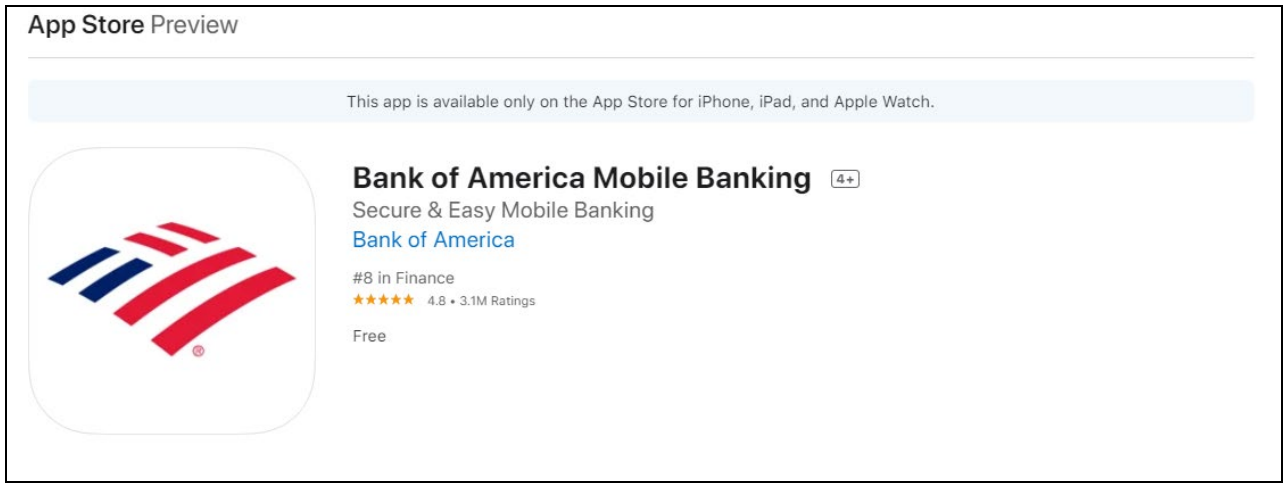
63. The written description of the '579 Patent supports each of the elements of the claims, allowing a POSITA to understand what the elements cover and how the non-conventional and non-routine combination of claim elements differed markedly from and improved upon what may have been considered conventional, generic, or routine. *See, e.g.*, '579 Patent at Fig. 7, 9:42-10:26, 13:48-53, 14:25-29.

Infringement by Bank of America

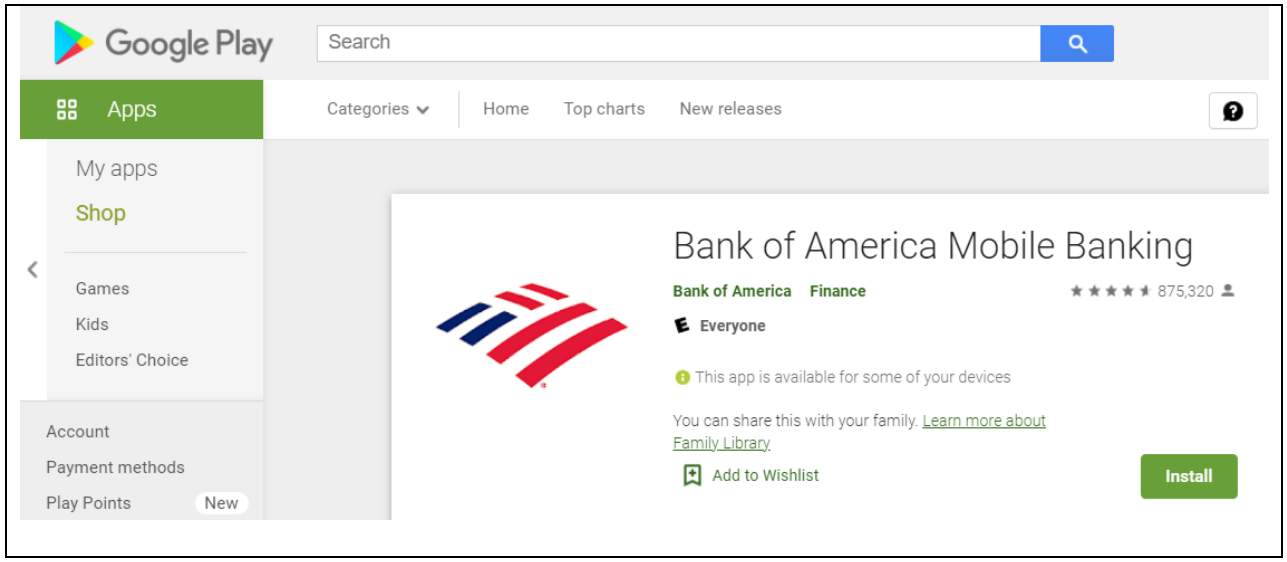
64. Defendant's most recent quarterly earnings filing noted that it had nearly 32 million active mobile users.[20] Defendant gained almost 1.5 million mobile users year over year, which it noted "reflected continuing changes in [its] customers' banking preferences."[21] With the massive existing base of mobile users and the continuing shift to mobile banking noted by Defendant, it is vital that Defendant's mobile banking applications be available for the most popular mobile devices (such as those running Apple's iOS or Google's Android operating system).

65. Accordingly, Defendant has created its own mobile banking applications and made them available in both Apple's and Google's App stores:

[20] Bank of America Corporation Quarterly Report for the Period Ended June 30, 2021, available at https://www.sec.gov/ix?doc=/Archives/edgar/data/70858/000007085821000084/bac-20210630.htm (accessed August 14, 2021).
[21] *Id.*



https://apps.apple.com/us/app/bank-of-america-mobile-banking/id284847138 (accessed on August 14, 2021).

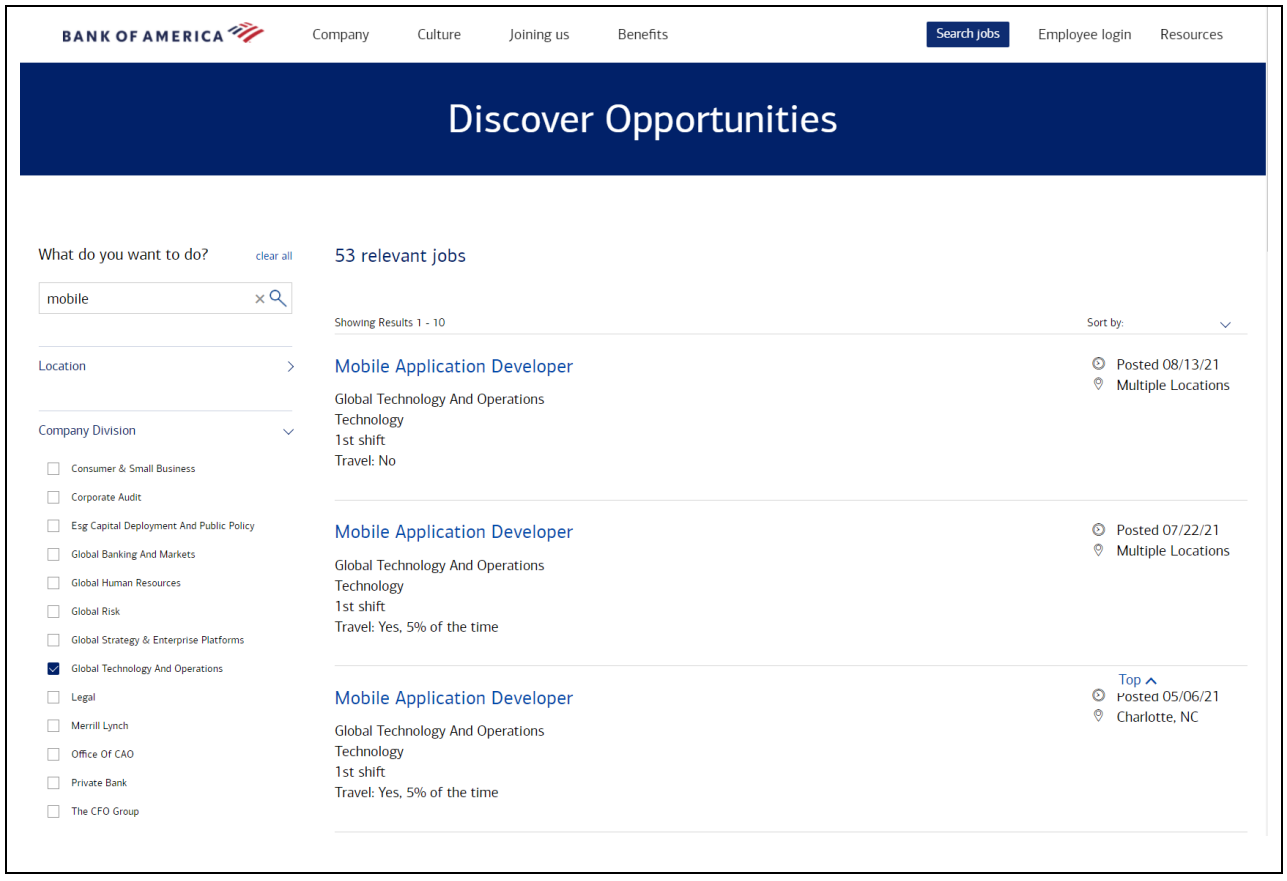


https://play.google.com/store/apps/details?id=com.infonow.bofa&hl=en_US&gl=US (accessed on August 14, 2021).

66. On information and belief, Defendant uses Apple's Xcode on an ongoing basis to author its mobile application for Apple's App Store. On information and belief, Defendant uses Google's Android Studio on an ongoing basis to author its mobile application for Google's App Store. Defendant uses both Xcode and Android Studio in a manner that infringes the Patents-in-Suit when it uses them to author mobile applications to support its banking services.

67. Defendant's use of Xcode and Android Studio in an infringing manner is necessary to meet the performance and functionality guidelines identified by Apple and Google for admission to their respective app stores.[22] Defendant's infringing use of Xcode and Android Studio is necessary to provide Defendant's large mobile banking demographic with a satisfactory mobile application.

68. Defendant employs engineers and computer scientists who author and verify performance of mobile applications for it on an ongoing basis. For example, Defendant is currently advertising numerous job postings for mobile application developers on its website:



https://careers.bankofamerica.com/en-us/job-search?ref=search&rows=10&search=jobsByKeyword&keywords=mobile&start=0&filters=division%3DGlobal+Technology+And+

[22] https://developer.apple.com/app-store/review/guidelines/ (accessed August 12, 2021); https://developer.android.com/distribute/best-practices/launch/launch-checklist (accessed August 12, 2021).

Operations (accessed on August 14, 2021).

69. These positions require mobile developers who can, for example, "Design, Develop & Prototype Android/iOS customer application for phone and tablets for internal and external use":[23]

Mobile Application Developer

San Francisco, California

Posted 04/20/21

Apply

Job Description:

Position Summary

- Experience working with Android / iOS Application technologies.
- Demonstrated interest in technology, technology-related issues and analytical analysis.
- High performance and standards as demonstrated by academic or previous job experience.
- Effective collaborator with both non-technical and technical team members.
- Motivated self-starter with a high attention to detail.
- Ability to thrive in a fast-paced, team-based environment.
- Strong written and verbal communication skills.
- Strong focus on troubleshooting and issue resolution.
-

Required Skills

- Design, Develop & Prototype Android /iOS customer application for phone and tablets for internal and external use.
- Participate in full app life-cycle: concept , design, build, deploy, test and release to app store

https://careers.bankofamerica.com/en-us/job-detail/21020619/mobile-application-developer-san-francisco-california-united-states (accessed on August 14, 2021)

70. Some of Defendant's job postings even note use of Xcode as a required skill:

[23] https://careers.bankofamerica.com/en-us/job-detail/21020619/mobile-application-developer-san-francisco-california-united-states (accessed on August 14, 2021)

Required Skills:
• BS/MS in Computer Science (or relevant work experience in a large scale IT environment)
• Experience conducting vulnerability assessments, code reviews and penetration tests against web/mobile application technologies, services, platforms and languages to find flaws and exploits (e.g. SQL Injection, Cross-Site Scripting, Cross-Site Request Forgery, Clickjacking, Authentication/Authorization, Privilege Escalation, Business Logic Bypass, OWASP Top 10, SANS Top 25 etc)
• Knowledge of network and Web related protocols/technologies
• Ability to demonstrate manual web application testing experience
• Experience with web application vulnerability scanning tools (e.g. IBM AppScan, HP Webinspect, Acunetix, NTO Spider, Burpsuite Pro etc.)
• Experience with vulnerability assessment tools and penetration testing techniques (e.g. web application proxies, packet capture analysis software, browser extensions, advanced penetration testing Linux distributions, static source code analyzers, SoapUI etc.)
• Experience of penetration testing on mobile platforms such as iOS, Android, Windows and RIM.
• Solid programming/debugging skills with proficiency in one or more of the following: Java, JavaScript, HTML, XML, PHP, ASP.NET, AJAX, JSON, Objective-C.
• Expert-level experience and very details technical knowledge in at least 3 of the following areas: general information security; security engineering; application architecture; authentication and security protocols; application session management; applied cryptography; common communication protocols; mobile frameworks, single sign-on technologies; exploit automation platforms; RESTful web services
• Demonstrated ability to learn and apply critical thinking to a variety of situations
• One or more of the following certifications: CISSO, GWAPT, CEH, OSCP (or qualified work experience)
• Strong scripting skills (e.g. Python, Perl, Shell script, JavaScript
• Experience as a developer
• Mobile programming abilities such as Xcode, Objective-C
• Knowledge of a Structured Query Language

https://careers.bankofamerica.com/en-us/job-detail/21043428/ethical-hacking-analyst-multiple-locations (accessed on August 14, 2021) (underlining added).

71. Defendant has continuously and willfully used Xcode and Android Studio in an infringing manner despite being made aware of some or all of the Patents-in-Suit by at least the time a previous suit against Defendant was filed.

Pending Suit Against Bank of America

72. On July 20, 2018, Plaintiffs filed Civil Action No. 4:18-cv-519 against

Defendant[24] in the Eastern District of Texas for infringement of the '678, '864, and '192 Patents (the "Pending Proceeding") based on its use of "[c]ertain Micro Focus software products."[25] Specifically, the complaint included infringement charts as exhibits which identified the "Accused System" as "HP LoadRunner, HP Performance Center, Shunra Network Virtualization, HP Network Virtualization engine, HP Network Virtualization for Mobile, HP Network Capture, and/or any Micro Focus products related to any of the foregoing."[26] Similarly, the Court understood the infringement suit to be based on use of "certain software products once owned by Hewlett-Packard Enterprise Company ("HP") and now owned by Micro Focus International plc ("Micro Focus") and its subsidiaries."[27]

73. In parallel to the case against Defendant, Plaintiffs also asserted claims of patent infringement against Micro Focus, the manufacturer of the "Accused System" from the Pending Proceeding.[28] Defendant subsequently filed a Motion to Stay "while Wapp proceeds against Micro Focus, manufacturer of the only accused instrumentalities and the true defendant."[29] While Plaintiffs initially opposed the stay, Plaintiffs later filed a Notice of Non-Opposition.[30] After reviewing the submissions of the parties, the Court granted Defendant's Motion to Stay on

[24] The suit was originally filed against Bank of America Corporation, but Bank of America, N.A. was later "joined as a defendant and [stood] in the shoes of Bank of America Corporation…as if Bank of America, N.A. was a party to the original Complaint." *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 92 at 1 (Order Granting Unopposed Motion to Join Bank of America, N.A. as a Defendant and Simultaneously Dismiss Bank of America Corporation).
[25] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 1 ¶¶ 15-34 (Complaint).
[26] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Complaint Exhibits Dkt. Nos. 1-14 ('678 Patent), No. 1-15 ('864 Patent), No. 1-16 ('192 Patent).
[27] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 16 at 1 (Order denying Defendant's motion to stay as premature).
[28] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Micro Focus International PLC*, No. 4:18-cv-469, Dkt. No. 1 (July 2, 2018 Complaint against Micro Focus for Patent Infringement)
[29] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 134 at 2 (Defendant's Motion to Stay).
[30] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 155 (Plaintiffs' Notice of Non-Opposition to Mo'tion to Stay Dkt. 134).

November 17, 2020, pending the resolution of Case No. 4:18-cv-00469 against Micro Focus.[31] In a June 11, 2021 Joint Status Report, the parties noted that a final judgment had been entered in the Micro Focus case and the parties were briefing post-judgment motions, and the parties requested that the case against Defendant "remain stayed at least through resolution of proceedings in the *Wapp v. Micro Focus* case in the district court."[32]

74. In contrast to the Pending Proceeding (No. 4:18-cv-519), this Complaint for ongoing infringement against Defendant is based on Defendant's use of Apple's Xcode and Google's Android Studio, rather than any "Accused System" by Micro Focus or any accused instrumentality from the Pending Proceeding. Thus, there is no overlap in Plaintiffs' infringement allegations in this proceeding and those asserted in the Pending Proceeding.

75. Defendant's use of Xcode and Android Studio in an infringing manner is wholly different than its use of the Micro Focus products at issue in the Pending Proceeding. Xcode and Android Studio are used to create Defendant's mobile applications by allowing the app developers to write and compile application code (as shown above), while the accused products in the Pending Proceeding use test scripts for testing the load on servers. As Plaintiffs' expert testified in the Micro Focus trial, the accused Micro Focus products (such as LoadRunner) in the Pending Proceeding cannot be used to create a mobile application, while Xcode and Android Studio can.[33]

76. Authoring environments such as Xcode and Android Studio serve a fundamentally different purpose than the server load testing Micro Focus products accused in the Pending

[31] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 156 (Order Granting Unopposed Motion to Stay).
[32] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 168 (Joint Status Report Per Order Dkt. 167).
[33] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Micro Focus International PLC*, No. 4:18-cv-469, Jury Trial Transcript, Volume 2, Afternoon Session at 456:5-25.

Proceeding.[34] Xcode and Android Studio are used during the initial authoring process, where the mobile application code is first written, compiled, and its functionality verified.[35] Load testing with test scripts, on the other hand, might occur (if ever) later in the development process, with the purpose of—for example—"modeling the expected usage of a software program by simulating multiple users accessing the program concurrently."[36] Thus, load testing generally requires knowledge of how the program will actually be used—something which is generally not determinable until after the initial authoring takes place.[37] Load testing is most often utilized to test multi-user systems, such as servers.[38]

77. The accused products in the Pending Proceeding allowed users to create scripts in a scripting language for the purposes of load testing.[39] The scripts themselves were not mobile applications.[40] "A scripting language or script language is a programming language for a runtime system that automates the execution of tasks that would otherwise be performed individually by a human operator. Scripting languages are usually interpreted at runtime rather than compiled."[41] Conversely, the code written in Xcode and Android Studio is generally the actual mobile application intended for use by end users—it is not meant to simply automate the execution of tasks such as testing. Additionally, the Xcode and Android Studio code is compiled before use rather than interpreted at runtime.

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[34] *See Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 1 at 7-11 (Complaint sections discussing accused products used for load testing).
[35] *See* "Authoring Mobile Applications" section, supra.
[36] https://en.wikipedia.org/wiki/Load_testing (accessed August 18, 2021).
[37] *Id.* ("The most accurate load testing simulates actual use, as opposed to testing using theoretical or analytical modeling.").
[38] *Id.* ("[T]his testing is most relevant for multi-user systems; often one built using a client/server model, such as web servers.").
[39] *See Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp.*, No. 4:18-cv-519, Dkt. No. 1 at 7-11 (Complaint sections discussing tests and scripting).
[40] *Wapp Tech Limited Partnership and Wapp Tech Corp. v. Micro Focus International PLC*, No. 4:18-cv-469, Jury Trial Transcript, Volume 2, Afternoon Session at 456:5-25.
[41] https://en.wikipedia.org/wiki/Scripting_language (accessed August 18, 2021).

Patents Asserted in the Pending Proceeding

78. Three of the Patents-in-Suit were asserted in the Pending Proceeding: the '192, '864, and '678 Patents.

79. Claim 1 of the '192 Patent requires:

> 1. A system for developing an application for a mobile device comprising:
>
> a software authoring interface configured to simultaneously visually emulate, via one or more profile display windows, a plurality of network characteristics indicative of performance of the mobile device when executing the application; wherein the software authoring interface is further configured to simulate a network connection state encountered by the mobile device.

80. As shown in—for example—Dkt. No. 1-16 attached to the complaint in the Pending Proceeding, Plaintiffs accused Defendant of infringing this claim through its use of server load testing software such as LoadRunner:

Claim Element	Evidence of Infringement
1. A system for developing an application for a mobile device comprising:	The Accused System (including HP LoadRunner, HP Performance Center, Shunra Network Virtualization, HP Network Virtualization engine, HP Network Virtualization for Mobile, HP Network Capture, and/or any Micro Focus products related to any of the foregoing) is a system for developing an application for a mobile device. "HP LoadRunner and HP Performance Center with Shunra Network Virtualization Improve the performance of **mobile apps** through effective **testing**…Shunra Network Virtualization, which integrates seamlessly into HP LoadRunner or Performance Center, enhances **test accuracy** by incorporating real-world network conditions into the load and performance test environment, ensuring that the **test results are more reliable and accurate**... The combination of HP LoadRunner or Performance Center and Shunra Network Virtualization is the path to robust, reliable, and accurate **mobile performance testing**." **HP LoadRunner and HP Performance Center with Shunra Network Virtualization, Page 1-3, Ex. A.**

Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp., No. 4:18-cv-519, Complaint Exhibits Dkt. No. 1-16.

81. In the instant proceeding, Plaintiffs plead that Defendant infringes this claim through its use of Xcode and Android Studio (the systems for developing an application for a mobile device). Plaintiffs do not rely on LoadRunner or any other system accused in the Pending Proceeding to support its infringement allegations.

82. Claim 1 of the '864 Patent requires:

> 1. A system for testing an application for a mobile device comprising:
>
> software configured to simulate, via one or more profile display windows, a plurality of network characteristics indicative of performance of the mobile device when executing the application; wherein the network characteristics are based on data of interaction with networks in non-simulated environments.

83. As shown in—for example—Dkt. No. 1-15 attached to the complaint in the Pending Proceeding, Plaintiffs accused Defendant of infringing this claim through its use of server load testing software such as LoadRunner:

Claim 1, U.S. Pat. No. 9,298,864

Claim Element	Evidence of Infringement
1. A system for testing an application for a mobile device comprising:	The Accused System (including HP LoadRunner, HP Performance Center, Shunra Network Virtualization, HP Network Virtualization engine, HP Network Virtualization for Mobile, HP Network Capture, and/or any Micro Focus products related to any of the foregoing) is a system for testing an application for a mobile device. "HP LoadRunner and HP Performance Center with Shunra Network Virtualization Improve the performance of mobile apps through effective **testing**…Shunra Network Virtualization, which integrates seamlessly into HP LoadRunner or Performance Center, enhances **test accuracy** by incorporating real-world network conditions into the load and performance test environment, ensuring that the **test results are more reliable and accurate**...The combination of HP LoadRunner or Performance Center and Shunra Network Virtualization is the path to robust, reliable, and accurate **mobile performance testing**." **HP LoadRunner and HP Performance Center with Shunra Network Virtualization, Page 1-3, Ex. A.**

Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp., No. 4:18-cv-519, Complaint Exhibits Dkt. No. 1-15.

84. In the instant proceeding, Plaintiffs plead that Defendant infringes this claim through its use of Xcode and Android Studio (the systems for testing an application for a mobile device). Plaintiffs do not rely on LoadRunner or any other system accused in the Pending Proceeding to support its infringement allegations.

85. Claim 45 of the '678 Patent requires:

> 45. A system for testing an application for a mobile device comprising:
>
> a software testing interface configured to simultaneously visually simulate, via

> one or more profile display windows, a plurality of operator network characteristics including at least bandwidth availability indicative of performance of the mobile device when executing the application; wherein the bandwidth availability is based at least in part on bandwidth data predetermined from interactions between one or more mobile devices and at least one operator network and interaction with a network enables the software to import real-world mobile network profiles.

86. As shown in—for example—Dkt. No. 1-14 attached to the complaint in the Pending Proceeding, Plaintiffs accused Defendant of infringing this claim through its use of server load testing software such as LoadRunner:

Claim 1, U.S. Pat. No. 9,971,678

Claim Element	Evidence of Infringement
1. A system for testing an application for a mobile device comprising:	The Accused System (including HP LoadRunner, HP Performance Center, Shunra Network Virtualization, HP Network Virtualization engine, HP Network Virtualization for Mobile, HP Network Capture, and/or any Micro Focus products related to any of the foregoing) is a system for testing an application for a mobile device. "HP LoadRunner and HP Performance Center with Shunra Network Virtualization Improve the performance of mobile apps through effective **testing**…Shunra Network Virtualization, which integrates seamlessly into HP LoadRunner or Performance Center, enhances **test accuracy** by incorporating real-world network conditions into the load and performance test environment, ensuring that the **test results are more reliable and accurate**...The combination of HP LoadRunner or Performance Center and Shunra Network Virtualization is the path to robust, reliable, and accurate **mobile performance testing**." **HP LoadRunner and HP Performance Center with Shunra Network Virtualization, Page 1-3, Ex. A.**

Wapp Tech Limited Partnership and Wapp Tech Corp. v. Bank of America Corp., No. 4:18-cv-519, Complaint Exhibits Dkt. No. 1-14.

87. In the proceeding, Plaintiffs plead that Defendant infringes this claim through its use of Xcode and Android Studio (the systems for testing an application for a mobile device). Plaintiffs do not rely on LoadRunner or any other system accused in the Pending Proceeding to support its infringement allegations.

88. As discussed in more detail in Count VI, which is incorporated herein by reference, Defendant is barred under at least issue preclusion, collateral estoppel, judicial estoppel, and/or its prior stipulation from challenging or otherwise re-litigating the validity of the

'192 Patent, '864 Patent, and '678 Patent.

Newly Asserted Patents

89. The Patents-in-Suit in this case include two patents not asserted in the Pending Proceeding: the '811 and '579 Patents. Both patents issued after the Pending Proceeding was filed.[42] Both patents also contain multiple limitations that were not at issue in the Pending Proceeding.

90. For example, Claim 1 of the '811 Patent requires:

> 1. A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:
>
> display a list of a plurality of mobile device models from which a user can select, wherein each model includes one or more characteristics indicative of a corresponding mobile device;
>
> simulate at least one of the one or more characteristics indicative of the mobile device corresponding to the selected mobile device model;
>
> simulate one or more characteristics indicative of a network on which the mobile device corresponding to the selected mobile device model can operate;
>
> monitor utilization of a plurality of resources over time as the application is running;
>
> display simultaneously two or more graphical images of the application's resource utilization, wherein each graphical image relates to a different resource;
>
> correspond the utilization of a specific displayed resource at a given time with one or more functions of the application responsible for that utilization

91. As can be seen, many of the above limitations are not found in the patents asserted in the Pending Proceeding. As one example, Claim 1 of the '811 Patent requires "correspond[ing] the utilization of a specific displayed resource at a given time with one or more functions of the application responsible for that utilization."

[42] The Pending Proceeding was filed on July 20, 2018. The '811 Patent issued on July 16, 2019. The '579 patent issued on June 23, 2020.

92. Claim 15 of the ’579 Patent requires:

> 15. A non-transitory, computer-readable medium comprising software instructions for developing an application to be run on a mobile device, wherein the software instructions, when executed, cause a computer to:
>
> select one or more characteristics associated with a mobile device;
>
> monitor utilization of one or more resources of the mobile device over time by an application running on a simulation of the mobile device;
>
> display a representation of one or more of the monitored resource;
>
> correspond the utilization of a specific displayed resource at a given time with one or more functions, or code, or both of the application responsible for that utilization;
>
> initiate transmission of the application on a simulation of the mobile device, or to the physical mobile device, or both.

93. As can be seen, many of the above limitations are not found in the patents asserted in the Pending Proceeding. As one example, Claim 15 of the ’579 Patent requires “correspond[ing] the utilization of a specific displayed resource at a given time with one or more functions, or code, or both of the application responsible for that utilization.”

COUNT I

Infringement of U.S. Patent No. 8,924,192

94. Plaintiffs incorporate the paragraphs above herein by reference.

95. Defendant without authorization has been and is directly infringing at least Claim 1 of the ’192 Patent. Defendant infringes at least Claim 1 of the ’192 Patent when its employees or agents use Apple’s Xcode or Google’s Android Studio to author mobile applications.

96. In addition to direct infringement, Defendant also indirectly infringes the ’192 Patent. On information and belief, Defendant has induced third parties to author mobile applications on its behalf using Apple’s Xcode or Google’s Android Studio. Defendant knowingly encourages and intends to induce infringement of the ’192 Patent by instructing third parties to

author applications compatible with Apple's iOS or Google's Android operating systems on Defendant's behalf, knowing and specifically intending that Apple's Xcode or Google's Android Studio will be used in an infringing manner to author the mobile applications.

97. Defendant will continue to infringe unless this Court enjoins Defendant and its agents, servants, employees, representatives, and all others acting in active concert with Defendant from infringing the '192 Patent.

98. On information and belief, Defendant was aware of the '192 Patent and related patents invented by the named inventor, had knowledge of the infringing nature of its activities, and nevertheless continues its infringing activities. Defendant was aware of the '192 Patent at least by the filing date of the complaint in the Pending Proceeding. At least by the filing date of this Complaint, Defendant was aware of the infringement allegations regarding the '192 Patent contained herein.

99. At least by the filing date of the complaint in the Pending Proceeding, Defendant has knowingly engaged in the willful destruction of Wapp's business as a whole, caused the loss of goodwill related to Wapp's business, deminished the viability of Wapp's business as a whole, and Defendant's actions have had an injurious effect on the property of Wapp, including its intellectual property and the '192 Patent.

100. Defendant's infringement of the '192 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys' fees pursuant to 35 U.S.C. §§ 284-285.

101. As a result of Defendant's infringement of the '192 Patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty with interest and costs.

COUNT II

Infringement of U.S. Patent No. 9,298,864

102. Plaintiffs incorporate the paragraphs above herein by reference.

103. Defendant without authorization has been and is directly infringing at least Claim 1 of the ’864 Patent. Defendant infringes at least Claim 1 of the ’864 Patent when its employees or agents use Apple’s Xcode or Google’s Android Studio to author mobile applications.

104. In addition to direct infringement, Defendant also indirectly infringes the ’864 Patent. On information and belief, Defendant has induced third parties to author mobile applications on its behalf using Apple’s Xcode or Google’s Android Studio. Defendant knowingly encourages and intends to induce infringement of the ’864 Patent by instructing third parties to author applications compatible with Apple’s iOS or Google’s Android operating systems on Defendant’s behalf, knowing and specifically intending that Apple’s Xcode or Google’s Android Studio will be used in an infringing manner to author the mobile applications.

105. Defendant will continue to infringe unless this Court enjoins Defendant and its agents, servants, employees, representatives, and all others acting in active concert with Defendant from infringing the ’864 Patent.

106. On information and belief, Defendant was aware of the ’864 Patent and related patents invented by the named inventor, had knowledge of the infringing nature of its activities, and nevertheless continues its infringing activities. Defendant was aware of the ’864 Patent at least by the filing date of the complaint in the Pending Proceeding. At least by the filing date of this Complaint, Defendant was aware of the infringement allegations regarding the ’864 Patent contained herein.

107. At least by the filing date of the complaint in the Pending Proceeding, Defendant has knowingly engaged in the willful destruction of Wapp’s business as a whole, caused the loss

of goodwill related to Wapp's business, deminished the viability of Wapp's business as a whole, and Defendant's actions have had an injurious effect on the property of Wapp, including its intellectual property and the '864 Patent.

108. Defendant's infringement of the '864 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys' fees pursuant to 35 U.S.C. §§ 284-285.

109. As a result of Defendant's infringement of the '864 Patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty with interest and costs.

COUNT III

Infringement of U.S. Patent No. 9,971,678

110. Plaintiffs incorporate the paragraphs above herein by reference.

111. Defendant without authorization has been and is directly infringing at least Claim 45 of the '678 Patent. Defendant infringes at least Claim 45 of the '678 Patent when its employees or agents use Apple's Xcode or Google's Android Studio to author mobile applications.

112. In addition to direct infringement, Defendant also indirectly infringes the '678 Patent. On information and belief, Defendant has induced third parties to author mobile applications on its behalf using Apple's Xcode or Google's Android Studio. Defendant knowingly encourages and intends to induce infringement of the '678 Patent by instructing third parties to author applications compatible with Apple's iOS or Google's Android operating systems on Defendant's behalf, knowing and specifically intending that Apple's Xcode or Google's Android Studio will be used in an infringing manner to author the mobile applications.

113. Defendant will continue to infringe unless this Court enjoins Defendant and its agents, servants, employees, representatives, and all others acting in active concert with

Defendant from infringing the ’678 Patent.

114. On information and belief, Defendant was aware of the ’678 Patent and related patents invented by the named inventor, had knowledge of the infringing nature of its activities, and nevertheless continues its infringing activities. Defendant was aware of the ’678 Patent at least by the filing date of the complaint in the Pending Proceeding. At least by the filing date of this Complaint, Defendant was aware of the infringement allegations regarding the ’678 Patent contained herein.

115. At least by the filing date of the complaint in the Pending Proceeding, Defendant has knowingly engaged in the willful destruction of Wapp’s business as a whole, caused the loss of goodwill related to Wapp’s business, deminished the viability of Wapp’s business as a whole, and Defendant’s actions have had an injurious effect on the property of Wapp, including its intellectual property and the ‘678 Patent.

116. Defendant’s infringement of the ’678 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys’ fees pursuant to 35 U.S.C. §§ 284-285.

117. As a result of Defendant’s infringement of the ’678 Patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Defendant’s infringement, but in no event less than a reasonable royalty with interest and costs.

COUNT IV

Infringement of U.S. Patent No. 10,353,811

118. Plaintiffs incorporate the paragraphs above herein by reference.

119. Defendant without authorization has been and is directly infringing at least Claim 1 of the ’811 Patent. Defendant infringes at least Claim 1 of the ’811 Patent when its employees or agents use Apple’s Xcode or Google’s Android Studio to author mobile applications.

120. In addition to direct infringement, Defendant also indirectly infringes the ’811 Patent. On information and belief, Defendant has induced third parties to author mobile applications on its behalf using Apple’s Xcode or Google’s Android Studio. Defendant knowingly encourages and intends to induce infringement of the ’811 Patent by instructing third parties to author applications compatible with Apple’s iOS or Google’s Android operating systems on Defendant’s behalf, knowing and specifically intending that Apple’s Xcode or Google’s Android Studio will be used in an infringing manner to author the mobile applications.

121. Defendant will continue to infringe unless this Court enjoins Defendant and its agents, servants, employees, representatives, and all others acting in active concert with Defendant from infringing the ’811 Patent.

122. On information and belief, Defendant was aware of the ’811 Patent and related patents invented by the named inventor, had knowledge of the infringing nature of its activities, and nevertheless continues its infringing activities. At least by the filing date of this Complaint, Defendant was aware of the infringement allegations regarding the ’811 Patent contained herein.

123. At least by the filing date of the complaint in the Pending Proceeding, Defendant has knowingly engaged in the willful destruction of Wapp’s business as a whole, caused the loss of goodwill related to Wapp’s business, deminished the viability of Wapp’s business as a whole, and Defendant’s actions have had an injurious effect on the property of Wapp, including its intellectual property and the ‘811 Patent.

124. Defendant’s infringement of the ’811 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys’ fees pursuant to 35 U.S.C. §§ 284-285.

125. As a result of Defendant’s infringement of the ’811 Patent, Plaintiffs have suffered

monetary damages, and seek recovery in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty with interest and costs.

COUNT V

Infringement of U.S. Patent No. 10,691,579

126. Plaintiffs incorporate the paragraphs above herein by reference.

127. Defendant without authorization has been and is directly infringing at least Claim 15 of the '579 Patent. Defendant infringes at least Claim 15 of the '579 Patent when its employees or agents use Apple's Xcode or Google's Android Studio to author mobile applications.

128. In addition to direct infringement, Defendant also indirectly infringes the '579 Patent. On information and belief, Defendant has induced third parties to author mobile applications on its behalf using Apple's Xcode or Google's Android Studio. Defendant knowingly encourages and intends to induce infringement of the '579 Patent by instructing third parties to author applications compatible with Apple's iOS or Google's Android operating systems on Defendant's behalf, knowing and specifically intending that Apple's Xcode or Google's Android Studio will be used in an infringing manner to author the mobile applications.

129. Defendant will continue to infringe unless this Court enjoins Defendant and its agents, servants, employees, representatives, and all others acting in active concert with Defendant from infringing the '579 Patent.

130. On information and belief, Defendant was aware of the '579 Patent and related patents invented by the named inventor, had knowledge of the infringing nature of its activities, and nevertheless continues its infringing activities. At least by the filing date of this Complaint, Defendant was aware of the infringement allegations regarding the '579 Patent contained herein.

131. At least by the filing date of the complaint in the Pending Proceeding, Defendant has knowingly engaged in the willful destruction of Wapp's business as a whole, caused the loss

of goodwill related to Wapp's business, deminished the viability of Wapp's business as a whole, and Defendant's actions have had an injurious effect on the property of Wapp, including its intellectual property and the '579 Patent.

132. Defendant's infringement of the '579 Patent has been and continues to be deliberate and willful, and, this is therefore an exceptional case warranting an award of enhanced damages and attorneys' fees pursuant to 35 U.S.C. §§ 284-285.

133. As a result of Defendant's infringement of the '579 Patent, Plaintiffs have suffered monetary damages, and seek recovery in an amount adequate to compensate for Defendant's infringement, but in no event less than a reasonable royalty with interest and costs.

COUNT VI

Declaratory Judgment that Bank of America is Barred from Challenging the Validity of U.S. Patent Nos. (1) 8,924,192, (2) 9,298,864, and (3) 9,971,678

134. Plaintiffs incorporate the paragraphs above herein by reference.

Defendant Stipulated to the Validity of the '192, '864, and '678 Patents in the Pending Proceeding

135. As shown above, on July 2, 2018, Wapp filed a patent infringement lawsuit against Micro Focus International PLC (the "Manufacturer Suit").[43]

136. The asserted patents in the Manufacturer Suit included the '192 Patent, '864 Patent, and '678 Patent.[44]

137. The jury trial for the Manufacturer Suit began on March 1, 2021.[45]

138. Per the agreement of the parties, each side had 10.5 hours to present evidence.[46]

139. At trial, the defendants presented expert testimony regarding their invalidity

[43] *Wapp Tech. Ltd. v. Micro Focus Int'l PLC*, No. 4:18-cv-469-ALM, Dkt. No. 1 (E.D. Tex., July 2, 2018).
[44] *Id.* at ¶¶ 59, 76, 95.
[45] *Wapp Tech. Ltd. v. Micro Focus Int'l PLC*, No. 4:18-cv-469-ALM, Dkt. No. 486 at 1 (E.D. Tex., Apr. 22, 2021).
[46] *Id.*

defense.[47]

140. After the close of evidence, Wapp moved for judgment as a matter of law on the defendants' invalidity arguments.[48]

141. On April 22, 2021, the Court entered final judgment in favor of Wapp "[p]ursuant to the Memorandum Opinion and Order entered on this date."[49]

142. As discussed in the Memorandum Opinion and Order, the Court granted Wapp's motion for judgment as a matter of law regarding validity.[50]

143. The Court's final judgment awarded $172,554,269.00 to Wapp.[51]

144. The defendants in the Manufacturer Suit had a full and fair opportunity to litigate their invalidity defense.

145. As also shown above, in parallel with the Manufacturer Suit, on July 20, 2018, Wapp filed a patent infringement lawsuit against Bank of America Corp. (the "Pending Proceeding").[52]

146. The asserted patents in the Pending Proceeding included the '192 Patent, '864 Patent, and '678 Patent.[53]

147. On June 12, 2020, Bank of America, N.A. was joined as a defendant, and Bank of America Corp. was dismissed without prejudice.[54]

148. On October 29, 2020, Bank of America, N.A. filed a motion to stay.[55]

149. In its motion to stay, Bank of America, N.A. stipulated that it "hereby agrees to be

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[47] *Id.*
[48] *Id.*
[49] *Wapp Tech. Ltd. v. Micro Focus Int'l PLC*, No. 4:18-cv-469-ALM, Dkt. No. 487 at 1 (E.D. Tex., Apr. 22, 2021).
[50] *Wapp Tech. Ltd. v. Micro Focus Int'l PLC*, No. 4:18-cv-469-ALM, Dkt. No. 486 at 2 (E.D. Tex., Apr. 22, 2021).
[51] *Wapp Tech. Ltd. v. Micro Focus Int'l PLC*, No. 4:18-cv-469-ALM, Dkt. No. 487 at 1 (E.D. Tex., Apr. 22, 2021).
[52] *Wapp Tech. Ltd. v. Bank of America Corp.*, No. 4:18-cv-519-ALM, Dkt. No. 1 (E.D. Tex., July 20, 2018).
[53] *Id.* at ¶¶ 58, 76, 96.
[54] *Wapp Tech. Ltd. v. Bank of America Corp.*, No. 4:18-cv-519-ALM, Dkt. No. 92 at 1 (E.D. Tex., June 12, 2020).
[55] *Wapp Tech. Ltd. v. Bank of America Corp.*, No. 4:18-cv-519-ALM, Dkt. No. 134 (E.D. Tex., Oct. 29, 2020).

bound by any final judgment in the Manufacturer Suit as to both infringement and invalidity."[56]

150. Based on the stipulation, Plaintiffs ultimately filed a non-opposition to the motion to stay. Due to the stay, Defendant evaded a jury trial in which the jury awarded the Plaintiffs 100% of its requested damages. Thus, Defendant received the benefit of its bargain and is now barred from challenging the validity of the '192 Patent, '864 Patent, and '678 Patent.

151. Because it agreed to be bound by any final judgment in the Manufacturer Suit as to invalidity, Bank of America, N.A is barred under at least issue preclusion, collateral estoppel, judicial estoppel, and/or its prior stipulation from challenging or otherwise re-litigating the validity of the '192 Patent, '864 Patent, and '678 Patent.

PRAYER FOR RELIEF

WHEREFORE, Wapp prays for judgment against Defendant as follows:

152. A judgment in favor of Wapp that Defendant has infringed and is infringing, either literally and/or under the doctrine of equivalents, the Patents-in-Suit;

153. A declaration that Bank of America, N.A is barred from challenging or otherwise re-litigating the validity of the '192 Patent, '864 Patent, and '678 Patent;

154. A judgment in favor of Wapp that Defendant's infringement has been and continues to be willful;

155. An Order permanently enjoining Defendant, its respective officers, agents, employees, and those acting in privity with them, from further infringement of the Patents-in-Suit;

156. An award of damages to Wapp arising out of Defendant's infringement of the Patents-in-Suit, including supplemental damages for any continuing post-verdict infringement up until entry of the final judgment, with an accounting, as needed, and enhanced damages pursuant to 35 U.S.C. § 284, together with prejudgment and post-judgment interest, in an amount

[56] *Id.* at 8.

according to proof;

157. An award of an ongoing royalty for Defendant's post-judgment infringement in an amount according to proof in the event that a permanent injunction preventing future acts of infringement is not granted;

158. An award of attorneys' fees pursuant to 35 U.S.C. § 285 or as otherwise permitted by law; and

159. Granting Wapp its costs and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

160. Pursuant to Federal Rule of Civil Procedure 38(b), Wapp hereby demands a trial by jury on all issues triable by jury.

Dated: August 27, 2021

Respectfully submitted,

/s/ Amir Alavi

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