

# Mobile Architecture & Development Tool

Lab 2 - Individual Work

MODE-4201

13797

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### 3. Mobile Application Development Tool

Tool Name	Android Studio version 2020.3.1 (AndroidDev, 2021)
Platform	Windows (64-bit), Mac (64-bit), Mac (64-bit, ARM), Linux (64-bit), Chrome OS (Depends) (AndroidDev, 2021)
Application Dev.	Native App & Web App. It is specifically made to develop Android applications. The downside is its strength, it can only be used to create Android apps.
Website	<a href="https://developer.android.com/studio">https://developer.android.com/studio</a>
Developers	JetBrains, Google ("Android Studio", 2021)
Release Date	December 8th, 2014 Version 1.0
License	Freeware ("Android Studio", 2021)
Price	Free ("Android Studio", 2021)
Programming Language(s)	Kotlin, Java, & C++ ("Android Studio", 2021)
Features	<ul style="list-style-type: none"> <li>• A flexible Gradle-based build system</li> <li>• A fast and feature-rich emulator</li> <li>• A unified environment where you can develop for all Android devices</li> <li>• Apply Changes to push code and resource changes to your running app without restarting your app</li> <li>• Code templates and GitHub integration to help you build common app features and import sample code</li> <li>• Extensive testing tools and frameworks</li> <li>• Lint tools to catch performance, usability, version compatibility, and other problems</li> <li>• C++ and NDK support</li> <li>• Built-in support for Google Cloud Platform, making it easy to integrate Google Cloud Messaging and App Engine (AndroidDev, 2021)</li> </ul>
Debugger	Yes, in-built (AndroidDev, 2021)
Built-in Emulator	Yes (AndroidDev, 2021)
Host machine Req.	Shared: <ul style="list-style-type: none"> <li>• 8 GB RAM or more</li> <li>• 8 GB of available disk space minimum (IDE + Android SDK + Android Emulator)</li> <li>• 1280 x 800 minimum screen resolution</li> </ul>

	64-bit Microsoft® Windows® 8/10 <ul style="list-style-type: none"> <li>• x86_64 CPU architecture; 2nd generation Intel Core or newer, or AMD CPU with support for a Windows Hypervisor</li> </ul> MacOS® 10.14 (Mojave) or higher <ul style="list-style-type: none"> <li>• ARM-based chips, or 2nd generation Intel Core or newer with support for Hypervisor.Framework</li> </ul> Any 64-bit Linux distribution that supports Gnome, KDE, or Unity DE; GNU C Library (glibc) 2.31 or later. <ul style="list-style-type: none"> <li>• x86_64 CPU architecture; 2nd generation Intel Core or newer, or AMD processor with support for AMD Virtualization (AMD-V) and SSSE3</li> </ul> (AndroidDev, n.t.d)
Integrated Dev.	IDE
Software Req.	Java Development Kit 8+ (Google, n.t.d)
Advantages	Android Studio is Android's official IDE and supported by Google.
Disadvantages	It is specifically made for Android development.
Language Availability	American English (default), Brazilian Portuguese, Chinese (Simplified and Traditional), Czech, Dutch, Finnish, French, German, Italian, Japanese, Korean, Polish, Russian, Spanish (Woodwing, 2021)
Uploading and Selling App	One-time \$25 dollar registration fee. (Google Play Console, n.t.d) If enrolled in the 15% service fee tier: <ul style="list-style-type: none"> <li>• 15% for the first \$1M (USD) of earnings each year,</li> <li>• 30% for earnings in excess of \$1M (USD) each year.</li> </ul> For developers who are not enrolled in the 15% service fee tier, the service fee is 30%. (Google Support, 2021)
Third-party Emulator	How to connect to Android Studio with Nox App Player. <a href="https://www.bignox.com/blog/how-to-connect-android-studio-with-nox-app-player-for-android-development-and-debug/">https://www.bignox.com/blog/how-to-connect-android-studio-with-nox-app-player-for-android-development-and-debug/</a> (bignox.com, 2021)
Market Share	2.40% (Datanyze, n.t.d)
Number of app available	3,482,452 (Statista, 2021)
Number of downloads/users	1,986,380 contacts (Datanyze, n.t.d)

Memory Profiler	Yes (Google, n.t.d)
Allow Live Editing	Yes (Google, n.t.d)

# References

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