

Lab 2 - Mobile Architecture and Development Tool

MODE 5202



September 29, 2021

By: Brett tindall

|  |  |
| --- | --- |
| Tool Name: | Android Studio |
| Platform: | Android Studios |
| Application Development Type (Type): | Desktop App |
| Application Development Type (Advantages): | More Available Functions, can store apps locally and available while offline. |
| Application Development Type (Disadvantages): | Requires an installation that is not portable between computers, updates are not automatic and different versions are needed for different O/S’s. |
| Website: | https://developer.android.com |
| Developers: | Google & Jetbrains |
| Release Date: | May 16, 2013 |
| License: | Android Studio is free to use. |
| Price: | Free |
| Programming Language(s): | All common languages are supported such as C#, Java and Python with extensions available, such as node.js or GO. |
| Features: | Built in emulator, IDE, plugins, jetpack, direct access to google play, Kotlin & other code extensions. |
| Debugger: | Android Studio has a debugger that works very quick. |
| Built-in Emulator: | Android Studio has a built-in emulator. |
| Host Machine Hardware Requirements: | - 64-bit Microsoft® Windows® 8/10,  - x86\_64 CPU architecture; 2nd generation Intel Core or newer, or AMD CPU with support for a Windows Hypervisor  - 8 GB RAM or more  - 8 GB of available disk space minimum (IDE + Android SDK + Android Emulator)  - 1280 x 800 minimum screen resolution |
| Integrated Development Environment: | Android Studio is its own integrated development environment. |
| Software To Be Installed: | An installer can be downloaded and run to automatically install the android studios ide. No other installations are required after this for general use however certain languages will require additional plugins to be installed. |
| Advantages: | * The application is very optimized, having a built-in ide, emulator and many other useful tools * Supports plugins and popular code extensions such as GO * The debugger is very efficient and easy to use * Has cross platform support |
| Disadvantages: | * The biggest issue is that without good hardware (specifically a large amount of RAM) the application can run very slowly * Large projects begin to take a long time to build and/ or emulate * Load times when initially opening the application or loading a project can be very long |
| Language Availability: |  |
| Uploading and Selling an App: | You can download a .apk file that contains your app for free from android studio. This can then be distributed via the google play store for a one time $25 fee or the apple app store for a $99 a per year membership fee. |
| Third-Party Emulator That Can Be Linked To The Tool: | Third-party emulators can be used in android studio. |
| Market Share: | 15.23% |
| Number of Apps Available: | There are 5 current versions, these being a Windows version, a Mac version, a version for Macs with ARM, a Linux version and a Chrome OS version. |
| Number of Downloads/ Users: | I could not find this information. |
| Current Version: | 2020.3.1 |
| Events: | Game jam competitions & yearly reveal party. |