**Technology Requirement**:

The choice of technology enablers that will be used for the development of the application is essential for its success. Technology used should fulfil the requirements. We are creating a native android app rather than cross platform as the features we are embedding in the app are more complex and using native language will be more effective.In a world where media consumption on mobile devices continues to outpace desktops and other connected devices, and where each user spends more than 2.5 hours daily on his/her smart phone, developers need to use cutting-edge technologies and tools in order to develop the next hit app.There is no best technology but instead suitable ones and that we shouldn’t reinvent the wheel which means that we should take advantage on what was already implemented and offered to the community.

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| **Technology:** | **PROS** | **CONS** |
| MySQL | Best in breed in open-source RDBMS databases. | **MySQL is not as mature as other relational database management systems.** |
| JAVA | **Easy Maintainability and only language for making android app** | **Fluctuation in Compilation** |
| ANDROID STUDIO | It is open-source software. And It supports big community of other android developers. | It takes a lot of memory space to install the IDE. |
| JIRA | It supports road map requirements. Jira has tools that enable users to sketch out the big picture, communicate plans, and connect the bigger road-map goals to the team’s everyday tasks. | Not the best mobile app. Jira users are more than satisfied with its web version, but not so much with its mobile app. |
| GITHUB | For those who are not in the same physical location, an online Git is an easy solution requiring no setup for new users. With no need to connect to the company’s VPN, it may be easier to dump everything on a private repository on Git Hub. | Some of Git-hub features, as well as features on other online repositories, are locked behind a SaaS paywall. If you have a large team, this can add up fast. |

**CODE EDITORS**

**ANDROID STUDIO:**

Android Studio is Android's official IDE. It is purpose built for Android to accelerate your development and help you build the highest-quality apps for every Android device. It offers tools custom-tailored for Android developers, including rich code editing, debugging, testing, and profiling tools. I have selected Android Studio for the following reasons:

Instant Run: When you click Run or Debug, Android Studio's Instant Run feature pushes code and resource changes to your running app. It intelligently understands the changes and often delivers them without restarting your app or rebuilding your APK, so you can see the effects immediately.

Optimized for all Android devices: Android Studio provides a unified environment where you can build apps for Android phones, tablets, Android Wear, Android TV, and Android Auto. Structured code modules allow you to divide your project into units of functionality that you can independently build, test, and debug.

**Miscellaneous Technology:**

GENY MOTION: Genymotion is a fast third-party emulator that can be used instead of the default Android emulator which may turn to be slow if the laptop has poor graphics. In some cases, it is as good as or better than developing on actual devices. 

Notepad++: Notepad++ is a free source code editor and Notepad replacement that supports several languages.

**Hardware Tools for Android**:

To create a spectacular Android app, you should take advantage of all that the hardware has to offer. Android devices come supplied with several hardware features that you can use to build apps.

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| **ANDROID HARDWARE** | **FEATURE** |
| GPS Receiver | |  | | --- | | Indicates the user’s location | |
| Camera | Take pictures and record video |
| Compass | |  | | --- | | Indicates in which direction the user is heading | |

**Learning Plans**

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| **MYSQL** | **Breakdown** |
| Duration | December 1st, 2020 – January 11th, 2021 |
| Use | This will be the database service we plan to use to store our applications information. |
| Resources | <https://dev.mysql.com/doc/mysql-tutorial-excerpt/8.0/en/>  <https://www.skysilk.com/blog/2018/how-to-connect-an-android-app-to-a-mysql-database/>  GBC Classes.  Tutorials.  Practice. |
| Skill Level (Team Average) | 90% |

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| **JAVA** | **Breakdown** |
| Duration | December 1st, 2020 – January 11th, 2021 |
| Use | Our Application will be developed on Android Studio which uses java to create the apps. |
| Resources | Internet Tutorials.  GBC Classes.  Practice coding mobile applications.  <https://developer.android.com/guide> |
| Skill Level (Team Average) | 80% |

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| **ANDROID STUDIO** | **Breakdown** |
| Duration | December 1st, 2020 – January 11th, 2021 |
| Use | We will be using Android Studio to develop our project on and use their android emulators to test our project on. |
| Resources | <https://developer.android.com/guide>  Tutorials on specific features ex (photo to text).  GBC Classes.  Practice with our group project. |
| Skill Level (Team Average) | 80% |

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| **JIRA** | **Breakdown** |
| Duration | December 1st, 2020 – January 11th, 2021 |
| Use | Used to plan, track, and manage our sprints and project progression. |
| Resources | GBC Classes.  Practice.  https://www.guru99.com/jira-tutorial-a-complete-guide-for-beginners.html |
| Skill Level (Team Average) | 90% |

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| **GITHUB** | **Breakdown** |
| Duration | December 1st, 2020 – January 11th, 2021 |
| Use | Used for code storage and sharing between our group members. Easy setup and can be used for version control. |
| Resources | <https://guides.github.com/>  GBC Classes.  Practice from other group projects and individual projects. |
| Skill Level (Team Average) | 85% |