**Software Implementation and Testing Document**

**For**

**Group 5**

Version 3.0

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# Programming Languages (5 points)

*List the programming languages used in your project, where you use them (what components of your project) and your reason for choosing them (whatever that may be).*

**Java** - We choose to use Java in the entire program because most of us are more familiar with android development in Java then other languages.

# Platforms, APIs, Databases, and other technologies used (5 points)

*List all the platforms, APIs, Databases, and any other technologies you use in your project and where you use them (in what components of your project).*

* Android Studio - Used to develop the app
* Google Maps API - Used to locate businesses during the business signup process
* Back4App - Used to store the users information that was used during the sign up process
* Android emulators - Used to test

# Execution-based Functional Testing (10 points)

*Describe how/if you performed functional testing for your project (i.e., tested for the* ***functional requirements*** *listed in your RD).*

Account creation and storage - We created Student & Business accounts then logged in to make sure we could create an account, login and that Back4App was storing the information properly.

Google Maps API- Testing was implemented by searching for a myriad of businesses in Tallahassee using the search bar in our app itself. When the business we were searching for appeared in the results shown, we clicked on that business which showed its location on an embedded Google map and an image of the business provided by Google. We confirmed accuracy by either being personally familiar with the business and its location or entering the constructed API URL into a real web browser and confirming the JSON data returned matched what was seen in our app.

Event Creation - tested user input into the fields and ensuring that they were saving into the database on Back4App. Ensuring that everything was connected into the correct columns. Making sure private flag was registering as true/false.

Direct Messaging-Testing was performed by using an Android emulator and a group member’s personal Android phone. Group members could also test it using the Android emulators.

Event Lists on Home Page - Testing that the events are listed with the correct logic view. Making sure the username is correctly displayed with the right profile pic. And that everything aligns.

Changing Profile Picture-Using emulator, selected an image from the photo gallery of the emulator and observed the new image appear on screen. Also observed the new image on our backend indicating successful update.

# Execution-based Non-Functional Testing (10 points)

*Describe how/if you performed non-functional testing for your project (i.e., tested for the* ***non-functional requirements*** *listed in your RD).*

We ran the code on 2 different Android phone emulators to make sure that the program would actually run on multiple Android phones.

Tested signing up with a non FSU email address to make sure it only allows FSU email addresses to sign up

Tested signing up with business to make sure local business could get in.

# Non-Execution-based Testing (10 points)

*Describe how/if you performed non-execution-based testing (such as code reviews/inspections/walkthroughs).*

We walked through the code together to know how the different account types interacted with the profile page. Example, how would the profile look if a student is signed in opposed to a business

Had eachother code review each feature and commit before they went into master to ensure things were kosher.