**Platform:**

* The platforms that we are developing on are Windows 10 home, and macOS 10.13: High Sierra.

**IDEs:**

* Intellij IDEA
  + This is a Java IDE with plugins such as JavaFX and SceneBuilder to help build the user interfaces for the software. This is widely used with several resources available for troubleshooting.
* Eclipse
  + This is a Java IDE, one of the most widely used Java development tools there are. (This will not be configured to fully run the application, just strictly back end files)
* MySQL Workbench
  + This is a GUI version of MySQL database to modify and configure the databases used for this application.

**Non-original artifacts and changes made:**

* In order to develop in Java, a JDK must be installed on the device. Most IDEs will have an option to install the JDK alongside the IDE. If this option is not offered, you can download a JDK from oracle.com.

**Framework:**

* JavaFX is a GUI building framework plugin. This was developed and supported by Oracle. This allows developers to create interactive windows in applications for the users.
* Junit testing was done for the backend files that had no user interface with Junit 5. We used Intellij and Eclipse to build our Junit testing files. Both of the IDE’s had the plugin already installed by default so no configuration is needed.

**Installation instructions:**

* Intellij IDEA
  + To install this, go to the JetBrains website (<https://www.jetbrains.com/idea/>) and install IJ. There are two options, Ultimate or Community, which both work. JavaFX comes preinstalled as a plugin so nothing needs to be done in order to work on the JavaFX aspect. In order to access the MySQL database. download the connector jar file from <https://dev.mysql.com/downloads/connector/j/> then unzip it and then add it to the external libraries for the project.
* Eclipse
  + To install this, go to the Eclipse website (eclipse.org) and follow the install instructions for Eclipse Neon or Oxygen. Next go download the jar connector from <https://dev.mysql.com/downloads/connector/j/> and unzip it. Once unzipped, select the *build path option* in the context menu on the project, select the *add external jar* menu option and then add the jar file.
* MySQL Workbench
  + To install this, go to the following website and follow the download instructions. <https://www.mysql.com/products/workbench/>. After doing so, create a local account on your device.

**Configuration instructions:**

* In order to configure the application, create a new project in Intellij and then load all the supporting files into the project. Start the local MySQL server in order to have proper communication to the database. The class which handles the connection to the MySQL database may also need to be changed to fit the user’s local database. To change this, make sure the port, username, and password are all the same as on the local machine.
* Eclipse was used in development for the backend files. A project must be created and then the supporting files must be loaded into the project. Then start up the local MySQL server in order to have proper communication with the database. Plugins must be configured in order to use the JavaFX framework. Eclipse is strictly used for the MySQL calculations and management. The class which handles the connection to the MySQL database may also need to be changed to fit the user’s local database. To change this, make sure the port, username, and password are all the same as on the local machine.
* For MySQL, the database must be imported from the Github repository to have the most up-to-date code and data. Two schemas must also be created called accounts and salesdata however nothing has to be put in them as the import will do that.

**Running instructions:**

* To run the full application, open Intellij and select the file titled as “main.java”. Then open up MySQL Workbench and start the local server. Also make sure that the database has not been altered in the Github repository and if it has, update it. After this is done, go to the task bar at the top of the application and press the green play button.

**Usernames/passwords needed and where to obtain:**

* The business owner’s username and password will be manually inputted into the account database by the development team. For security purposes, only the business owner can create other accounts.
* The business owner will be able to create sub-accounts with limited access to the data and provide account information to its employees.