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CS 499: Computer Science Capstone

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5-2 Milestone – Databases

The artifact to be used to satisfy the third requirement of having a database is that of a project that was conducted in one of my classes CS360 - mobile architecture and development. In the project that was done in the class, we were tasked with creating a mobile app program called inventory app using android studio with the Java programming language as the language of choice, which was to enable its user log into the program, and access inventory list containing items added by them. When logged in, the user is able to perform CRUD (create, read, update, and delete) actions on the database connected to the project. Through such actions, the user can add products to the list, view added products, update and delete products as needed. The database host of choice for the project was SQLite database, as it was a local form of database that could easily be attached to any Android studio application. The database was to be used to store products in the inventory list locally.

The inclusion of this project(inventory App) in my E-portfolio was done in order to help demonstrate my mastery and skillfulness, when it comes to being able to not only store data in a database host of choice as needed, but also to show my ability to switch from one database host to another, as demonstrated during the enhancement conducted in this milestone, I was to change the database for the project from the SQLite database host to a MySQL database host. The reason for the change is that it creates a remote access feeling for the project, whereby data is able to be stored outside of the program’s locality through the use of a more remote means. If MySQL is used for the database, then the database could easily be stored away on a remote server of choice.

Two different methods were considered for the migration. The first one was chosen to use the means of a restful API to make the proper connection to the server using Java as language of choice. The server can be accessed using the restful API method’s ‘post’ and ‘get’ commands to access the data in the database and the make the appropriate calls in order to pass the data to the application using java. The second method available was to use the ODBC driver class to retrieve the data from the MySQL database and then use it to interact with the program. The second method which requires the use of an ODBC Drvier was adopted for the enhancement in this module. A lot of the course outcomes were fully satisfied by means of enhancing this project. The outcome that requires having a security mindset was satisfied in this project. Some of the challenges I had was needing to refresh my memory regarding how to go about using the two methods mentioned above to connect to the MySQL database successfully.