This artifact is a SQL database which was created by me using Azure Data Studio. My original plan was to continue with a SQL database already created from a course taken here at SNHU called Database Structures. While attempting to continue with that project, I was unable to connect to the existing database as the permissions and IDE used for that class expired. I researched how to get a SQL database created and created my own for this artifact. This is a database that contains dummy flight information. It has four tables, Airlines, customer\_flights, customers and flight\_info. The idea behind this database is to hold data pertaining to specific airlines in the Airlines table, flight numbers and flight locations in the customer\_flights table, customer names and gold member status in the customers table, and finally flight numbers and departure/arrival times in the flight\_info table.

For this artifact, we are focusing on the customers table. Here, we have four fields: customerID (primary key), customerFirstName, customerLastName, GoldMember (membership status), and customerAge. I personally have seen examples of stored procedures being used and have not created any myself. After doing some research I found that these are queries that can be re-used instead of typing select statements repeatedly. Stored procedures are helpful when querying for the same data. You can also easily implement a filter, such as a where clause to have customized data records displayed from the database. I decided to create a stored procedure that will accurately provide the user with all of the users with the last name “Brown” in the customers table, which is a table with twenty-five records. This is a good real world example as employees at an airline customer service desk need to retrieve important data quickly without typing in a select query with a where clause.

This artifact showcases my SQL skills because although select queries are easy enough to write, this is a way to view important data quickly and efficiently. I have written many select statements to view data, and stored procedures like this one can help many colleagues, especially new developers who are either new to writing SQL or need specific data quickly. I reached my goal in creating this stored procedure and I did meet the following course objectives: *demonstrate an ability to use well-founded and innovative techniques, skills, and tools in computing practices for the purpose of implementing computer solutions that deliver value and accomplish industry-specific goals (software engineering/design/database)* and *Employ strategies for building collaborative environments that enable diverse audiences to support organizational decision making in the field of computer science*. Creating a stored procedure helps assist colleagues and provide a useful tool for the team to use going forward. It also adds value to the company by allowing anyone to use this stored procedure which can be customized to search for other items in the database. This helps increase team efficiency. One function I was debating implementing as well was adding a case statement. A SQL case statement is similar to an if/else statement and will return values if the *if* statement returns true. For this airline example, I couldn’t think for a feasible need for a case statement which is why it was not implemented.

The main challenges I came across when creating this stored procedure was following the steps in setting up Azure Data Studio and the terminal commands required. One item that was difficult was not having homebrew downloaded using the terminal and I needed to research instructions on how to obtain that software. I was able to do so after some time. Once I had Azure Data Studio downloaded on my computer and was connected to my database files in the terminal, I needed to quickly learn the template stored procedure in Azure Data Studio and had to acquire assistance from a tutor on how the syntax to get my stored procedure working. Once I got it working, it was displaying my desired results. Overall, this stored procedure did pass my expectations and provide the data I was looking for in a fast and accurate manner.