

**Date:** 10/26//2021

**Company:** Team 4

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## **Executive Summary**

### **Overview**

Our group was tasked with developing SQL code for our customer who runs a hotel. The code will allow our customer to properly query their database and allow them access to the information they need to properly run the hotel.

### **Proposed Solution**

The code is divided up into 11 different sections, with each section addressing a different problem that was tasked to us. For our first series of tasks, we allowed the user to access information regarding the customer such as their name, id, and confirmation number. This is coupled with various filtering options that allow the user to access specific details. We used conventions like WHERE statements and group by / order by statements in order to complete these tasks. Additionally, we used JOIN statements to query results from multiple tables. This table structure allows for minimal data redundancy while maintaining all the necessary information. Depending on the user's preferences, they can access information pertaining only to those customers that have completed their reservations (with status "C"). On the flipside, we also allowed users to access information regarding customers that have never had a reservation at the hotel. We also implemented UNION statements in order to bridge gold, platinum, and diamond members of the customer base in order to compare them. Throughout the queries, we periodically used ORDER BY statements to sort the results by a desired field.

### **Final Thoughts and Implementation**

These SQL queries allow for the user to easily access relevant information about their hotel. We also provided customers with insights about their rewards, as well as the hierarchy of customers based on the number of credits earned during their stays. This information is vital to ensure loyalty in returning customers, and also to incentivize new customers to start building reward points. Overall, the implementation of these queries were straightforward. Using the tools we learned in class, our group was able to provide insights that will help both customer and consumer.