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**Company:** Team 4

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## **Executive Summary**

### **Overview**

Our company was initially tasked with the creation of the design of a database for the Sour Apple Hotel as they are expanding and now need a centralized reservation system to manage all of its new locations. Now that the initial design has been improved, the next step of this project was to create the database in Oracle SQL Developer to allow for online integration.

### **Proposed Solution**

In this assignment, our group implemented the schema for homework assignment 1. To do so, we created 8 tables, Customer, Customer\_Payment, Reservation, Location, Room, Reservation\_Details, Features, and a linking table for location and features. For each table, we labelled the primary and foreign keys as constraints, and also created auto indexing sequences in order to auto-update each primary key. We then filled the tables with dummy data, and added reservations according to the assignment specifications. We also created a special index section for non-primary FKs that were necessary for important query features. The two indexes we created were for the room, reservation\_id, state, and city in order to be able to query properly between the two tables. Additionally, we chose to use constraints on the table level, instead of the column level, as they are labeled and therefore more informative as to what the constraint is. Indexes were utilized for non primary Foreign Keys or any other important features to allow them to still be called easily. The indexed non primary Foreign keys were reservation, customer payment, and room. These foreign keys were selected based on what information is typically needed when reserving a room. The indexed features that were not foreign keys were state and city, which were selected due to the important information they tell about the customer. Finally, one last thing to note is the order in which we created and dropped the tables, in order to make sure the code runs smoothly and efficiently without error.