

Executive Summary

After collecting the business requirements and developing the high-level dimensional design, next comes the actual task of creating the proposed warehouse. For the purpose of this assignment, I explored the Oracle Cloud Environment to set up the warehouse. I first expanded my high-level dimensional model to a detailed database diagram to identify different database fields and keys for the fact and dimension tables. The first step for creating a fully functional data warehouse is to create the skeleton. After setting up the free student Oracle cloud account I created an autonomous data warehouse. Then for creating tables, I used the SQL tab under the Database Actions dropdown. One new thing that I learned was creating a table without coding, just by selecting the create object option and adding column names, the tables got created. Next, I defined Primary Keys and other attributes for all the tables. To set the primary key field to autoincrement, I selected the Identity Column option while creating the Primary Key. Then I defined Foreign Keys for the fact table to establish relationship with other dimension tables and hence realize the star schema. After I press the create button, the sql code for the table gets auto-generated which can be downloaded. This reduces the chances of error and also enables easy changes.

Next, to create a database diagram, I go to 'View All Database Actions' and select 'Data Modeler'. This option is another cool feature of Oracle Cloud. Just by dragging and dropping the created tables into the diagram region, the diagram gets created with all the relationships. The diagram can be modified and personalized by selecting different colors and many other options. The diagram can be edited any number of times, also if any changes are made in the schema,

the same are reflected in the diagram as well. Thus, with the diagram the basic task of creating a data warehouse is done.