

# DB Project

A Database project is a necessary requirement for the database course and is worth 7.5% of your total grade. The aim of the project is to handle a large set of data and reshape it to get the targeted information. You need to use your skills to import, clean and manipulate the data on Oracle database.

Students must submit a final report along with a presentation after the final report submission.

In project final report, make sure to include the following:

## 1. Overall Description

### 1.1 Introduction and Background

*<Provide a short description of the data. What is this data about. What is the type of raw data. What is the source of the data..etc.>*

### 1.2 Attribute List and description

*<give a list of the attribute provided on the raw data.>*

### 1.3 Definition of Terms

*<Define all the terms necessary to properly interpret this document, including acronyms and abbreviations.>*

### 1.4 Project Goals

*<Describe project goals and what answers its try to find. Also list all requested query statements.>*

## 2. DB Design

### 2.1 ER-Diagram

*<Provide ER-Diagram that describe the data on its final view.>*

### 2.2 ER-To-Relational Mapping

*<Do mapping for your ER-Diagram to Relational DB.>*

### 2.3 Final Table List and description

*<Provide a list of all tables and a short description of each of them. Your Actual design should consider all required constraints such as PK, FK, Unique... etc. You also need to explain on this section each constraint for each column..>*

### 2.4 Normalization

*<Describe in details to which normal form your database design is fit on, why you think this is the best choice for you to go with, what limitation that hold you from not doing other higher forms.>*

## 3. Data Processing

*<Give in details the steps you did to transform the data from its initial state (raw data file) to its final state. Provide all SQL statements you used. Provide screenshots whenever its applicable.>*

### 3.1 Data Importing

### 3.2 Data Cleaning

### 3.3 Data Transformation

## 4. Project Results

*<Provide SQL as well as PL/SQL codes that used to achieve project goals and answers. Provide Charts that represent the results.>*

## 5. Difficulties and Problems Faced

*<list all things that have not been delivered and the also things if there are any changes on the plan and explain the reasons behind that.>*

## 6. Beyond The Project Scope (Bonus)

*<Can you find a way to use the same data to solve another problem out of the project scope? Give detail.>*

Project Due: Dec 1<sup>st</sup>, 2025

Presentation: Last week of classes (some days between Dec 14<sup>th</sup>-18<sup>th</sup>, 2025).