Database Project : **Instruction**: The aim of this Database project is to design and implement a database of a company (private or public). Form a team of having 5 members and select your team leader. Select your DB project title of your favorite company in the google class room form link. I assume all database project titles you submitted are not redundant. So, before submitting your title, please check the submitted titles in the google sheet link. The report of your database project will be reported based on the outline given below.

Submission Date: 23 August 2022

Title of database project:_____

Phase 1: **Identify the organization (2 page max)**

Our goal in this project is to replace the current paper-based or stand-alone system with database system. The organization will be benefited from data collection and information sharing efficiency. During the initial stage of the project, you are expected to identify challenges or problems of the existing data management practices of the organization. Answer the following points:

1. How many customers and users are there in the selected organization?
2. What is/are the challenges of existing data handling of the organization, limitation of the current system?
3. Can you describe how the data is managed (stored, organized, searched, retrieved, deleted, generate report?
4. How can you measure the benefit of replacing existing system by using database system?
5. Can you mention list of business requirements and expectation of the database project?
6. Describe the collection of related tables/records managed, stored, maintained, and frequently manipulated in the organization.

Note: you can write a paragraph for each of the above questions in your report

Phase 2: **Data Modeling (2page max)**

Construct conceptual models using ER diagram

1. Identify entities
2. Identify relationships
3. Identify attributes
4. Draw ER diagram

State your assumption you take about the data models if any.

Phase 3: **Logical Design**

Map conceptual models using ER diagram to the relational model

1. Add different constraints into the design
2. Identify cardinalities
3. Identify specializations and generalization
4. Construct Relational schema

- Database Schema (1page max.)

  Table Definition
  -- Table Name
  -- Field Name
  -- Data type
  -- Field size
  -- Constraint (e.g. autogenerated, primary key, foreign key,check)
  -- Validation (e.g. not null, default value)

- Implementation(SQL codes) (2 page max.) Write SQL code to create database, tables and their relationship, add constraints using SQL code. Insert sample data in each table. Construct at least 6 queries which are frequently needed by the end users of the database and Outputs, Sample Trigger and Stored procedures.
- Plan for back up and recovery, access levels, privileges, security levels enforcement (1page max.)
- Future Enhancements of the system (½ page max.)