

Database Final Project

1. Introduction:

Design and implement a database system for a domain of your choice.

2. Domain Selection:

You are required to choose a domain for your database project. You have the freedom to select any domain that aligns with your interests, career aspirations, or potential real-world applications. The chosen domain should be sufficiently complex.

3. Project Structure:

A. Domain Description:

- Provide a brief overview of the selected domain, including its purpose, stakeholders, and key functionalities.

B. Information Gathering:

- Research to gather relevant information about the selected domain, including data sources, requirements, and potential challenges.
- Document the information gathered and identify the primary entities, relationships, and functionalities that need to be supported by the database system.

C. Problem Statement:

- Clearly define the problem statement for the database project within the chosen domain.
- Identify the specific challenges or requirements that the database system should address.

D. Objectives:

- Define the objectives of the project, outlining what the aims to achieve with the database design and implementation.
- Specify the expected outcomes and deliverables of the project.

E. Entity-Relationship Diagram (ERD):

- Develop an ERD to represent the entities, relationships, and attributes within the selected domain.
- Use appropriate notations to model the structure of the database schema.

F. Database Schema Design:

- Based on the ERD, design a relational database schema that reflects the identified entities, relationships, and constraints.
- Normalize the database schema to eliminate redundancy and ensure data integrity.

G. SQL Implementation:

- Write SQL scripts to create the database schema, including tables, constraints, and indexes.

H. Data Population:

- Populate the database with sample data to demonstrate its functionality and validate the database design.

Your report (MS Word) should contain the following:

- Project overview
- Domain description.
- Problem statement
- Objectives
- ERD
- Database schema design.
- SQL implementation details and sample queries.
- Data population process and validation results.