Course name: DBMS

Assignment 2

Submission: Due to deadline. Into Moodle LMS.
Submission format: PDF document containing SQL queries and textual descriptions of their purpose and results and links from **kaggle.com**
Grading Criteria: Agile methodology requires breaking down projects into smaller, more manageable tasks that can be easily monitored and identified. Therefore, Assignment 2 is not accepted without Assignment 1 and be assessed as following:
Assignment2= Revised work of Assignment 1 + Requirements of Assignment 2
50% of each block respectively and cumulatively 100%

Total points given: 100 pts.

Objective
Continue your Assignment-1
The goal of this assignment is to help you practice and demonstrate the use of **SQL DQL (Data Query Language)** and **SQL DML (Data Manipulation Language)** commands. You will write and execute SQL queries for data retrieval and manipulation, focusing on filtration, string and date functions, and modifying and deleting data. Clear textual descriptions of each query are required.

Task Requirements

1. **WHERE Filtration**
   o Write **5 SELECT statements** using the WHERE clause to filter data based on specific conditions.
   o **Description Requirement**: For each query, explain the condition being applied and the purpose of the filtration.
   (20 pts)
2. **String Built-in Functions**
   o Write **5 SELECT statements** using SQL string functions such as CONCAT, UPPER, LOWER, SUBSTRING, TRIM, etc.
   o **Description Requirement**: Describe the purpose of the string function used in each query and the expected transformation of the data.
   (20 pts)
3. **Date Built-in Functions**
   o Write **5 SELECT statements** using SQL date functions such as NOW, DATEADD, DATEDIFF, YEAR, MONTH, etc.
   o **Description Requirement**: Explain how the date function is being applied and its relevance in the context of the query.
   (20 pts)

4. **Changing Data**
    - ○ Write **5 DML commands** using UPDATE to modify existing records in the database.
    - ○ **Description Requirement**: Explain the specific updates being made, the conditions applied, and the affected rows.
      (20 pts)

5. **Deleting Data**
    - Write **5 DML commands** using DELETE to remove records from the database based on specific conditions.
    - **Description Requirement**: Describe the purpose of the deletion, the conditions applied, and the impact on the database.
    (20 pts)

Grading criteria

Main Stages	Task	Points
WHERE Filtration	5 SELECT statements demonstrating the use of WHERE clause	20%
String Functions	5 SELECT statements demonstrating string built-in functions	20%
Date Functions	5 SELECT statements demonstrating date built-in functions	20%
Changing Data	5 UPDATE statements for modifying data	20%
Deleting Data	5 DELETE statements for removing records	20%

Important Notes

- Ensure that all queries are executed on the database designed in **Assignment-1**.
- The submission must include both the SQL code and the textual description of each query's purpose, functionality, and expected result.
- Queries should demonstrate meaningful scenarios relevant to your chosen business case.
- Use appropriate data in the database to ensure each query yields non-empty results.