

## Summer 2020 Project Description

**Points: 20 points.**

**Submission via <https://2ds.datascience.smu.edu>**

*Select* of your own choice one mini-world problem (like Library, medical clinic, pharmacy etc) and *Design* your own Database project for this system. Your project should include the following:

1. A full description to the data requirements you gathered to capture all specifications that is needed for this project.
2. Draw an ER diagram for the above problem using this text's ER notation, the Visio notation, or the subtypes inside super types notation, as specified by your instructor to captures all requirements.
3. A full DDL statements that includes all primary keys, unique keys, foreign keys, and, check constraints.
4. You should fill your tables with many rows (main transaction tables at least 100,000 records). It is allowed to use import data utilities(like excel ....etc), or writing a transcript insert statements to create random data.
5. Writing 5 complex quires to retrieve main reports you find they important in the system.(The complex queries means it should include at least one of or more of the following: aggregate function, inline queries, correlated inner query, different types of joins, set operations etc).
6. Add business functionalities using stored procedures and function .
7. Use DB triggers to audit the DML operations on critical tables of your DB .

### **Project Assessment (see rubric at separate rubric file)**

#### **Project Delivery:**

1. Word Documents includes full details about the Data Requirements, Enhanced Entity Relationship (EER), and, All SQL Statements (DDL, DML, and Select).
2. Power point represents your project demo.



**A Single Compressed File:**

Please submit your tarred and compressed file named YourName.zip through <https://2ds.datascience.smu.edu> . No e-mail submission is accepted.

**Late Submission Penalty:**

**25%** percent penalty per day for late submission. For example, an assignment submitted after the deadline but up to 1 day (24 hours) late can achieve a maximum of 75% of points allocated for the assignment. An assignment submitted after the deadline but up to 2 days (48 hours) late can achieve a maximum of 50% of points allocated for the assignment.

**Important!** Project assignments submitted more than 3 days (i.e., 72 hours) after the deadline will not be graded. In this case, the grade of your project 3 will be 0.

**What happens if you can't complete the project?**

If you are unable to complete this project for any reason, please describe in your summary paper that remains to be finished. It is important to present an honest assessment of any incomplete components.

**Rebuttal Period**

You will be given a period a week (7 days) to read and respond to the comments and grades of your homework or project assignment. Dr. Zhou may use this opportunity to address any concern and question you have. Dr. Zhou also may ask for additional information from you regarding your project.