

PROJECT

Assume that you have a business depending on last digit of your student ID as given below.

Last Digit of Student ID	Business
0, 1	Government Office
2, 3	Online Newspaper
4, 5	Movie Production
6, 7	E-Commerce Platform
8, 9	Streaming Platform

For example, the one whose student ID is 114200066 will answer the following questions by assuming s/he owns E-Commerce company.

QUESTIONS

1. Create a database for your firm.
2. Design and implement your tables, relations etc. depending on your business. Design is totally up to you, however, you are expected to justify your answers.
3. Design and implement simple application that allows users to make operations for your database, e.g. adding, showing records etc.

Note: Demo for a sample application is recorded. Refer for weekly recordings.

REPORT

(60 points)

1. Explain your company and its business.
2. *(20 points)* Explain your database design, i.e. which tables and relations are used, in details.
3. *(10 points)* Draw ER diagram of your database¹. Provide snapshots for tables.
4. *(10 points)* Explain keys and cardinalities for each table.
5. *(20 points)* Apply 4NF Normalization for your database's tables. Explain each step of normalization.

¹You can use LucidChart.

CODE
(40 points)

1. *(10 points)* Design and implement simple user interface for your database. Design is totally up to you.
2. *(20 points)* Implement functionality for adding records to tables.
3. *(10 points)* Implement functionality for showing records in tables.
4. *(10 points)* Implement functionality for executing more complex SQL commands.
5. Additional functionalities of application will be graded as bonus, up to 20 points.

Note: Ensure that your programs are fully documented, using comments.