LONDON METROPOLITAN UNIVERSITY

Islington college
(इस्लिङ्टन कलेज)

CC6012 Data and Web Development

40% Individual Coursework

Student Name:

London Met ID:

College ID:

Assignment Due Date:

Assignment Submission Date:

Word Count:

I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded.

Contents

1. Introduction

Introduction to your Report.

2. Textual Analysis

Provide the textual analysis from the case study.

For example: -

Figure 1 Textual Analysis of Employee and Department

Description: One employee is assigned to either one department or none. One department can have at least one employee or many employee.

Note: Create textual analysis for every relationship identified from the Case study.

3. ERD from Case Study

Provide your initial ERD created from the case study

4. Normalization

Normalize fig1 with proper identification and representation of the repeating group, partial dependency and transitive dependency and **Keys as well.** If any entities automatically transform from one normal form to another normal form, then do mention why that/those entities automatically transform.

Note: - List all the final entities before moving to the next Normal form.

5. Integration and Assumption

Combine all the entities derived from the case study and normalization. Provide any assumptions that you have made for the integration of entities.

Note: Be careful while integrating and make sure there should not exist many to many relationships and should not miss the relationship that exists in your initial ERD. Last, provide overall entities with attributes and proper key representation.

6. Final ERD

Provide final ERD created from **SQL Data Modeler.**

Note: Make sure your relationships line is not intersected in your Final ERD.

Use PROPER CARDINALITY (MANDATORY AND OPTIONALITY) AND ALSO USE appropriate Constraint for each column (UNIQUE CONSTRAINT, CHECK CONSTRAINT, NOT NULL CONSTRAINT, DEFAULT CONSTRAINT ETC.)

7. Data Dictionary

create a data dictionary for all entities following the given template

for eg: -

Table: **Employee**

Column Name	Data Type	Size	Constraint	Reference Table	Reference Column	Description	Example Data
Emp_id	Varchar	10	Primary Key			To uniquely identify Each employee	Emp1
Emp_name	Varchar	50	Not null			To store the employee's name	Ram Sharma
Email	Varchar	50	Unique			To store employee's email	ram@gmail.com
Dep_id	Varchar	10	Foreign Key	Department	Dep_id	To store the employee's allocated department	D1

8. Script

Generate DDL script from Data Modeler and provide that script here. Just copy-paste the DDL script. And provide the screenshot of script execution in SQL Developer.

9. Insert Statement

Provide the screenshot for the execution of the insert statement through SQL developer for every entity.

For example:

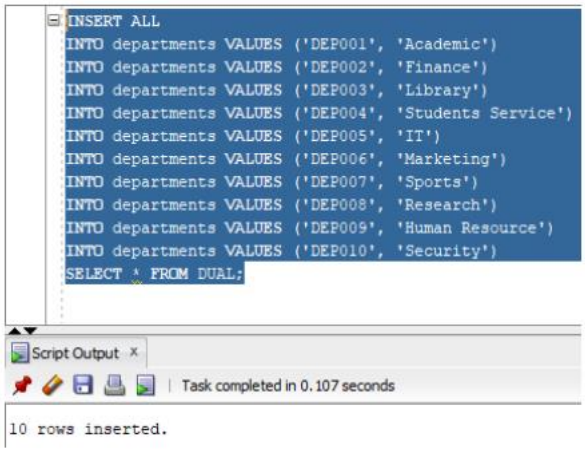


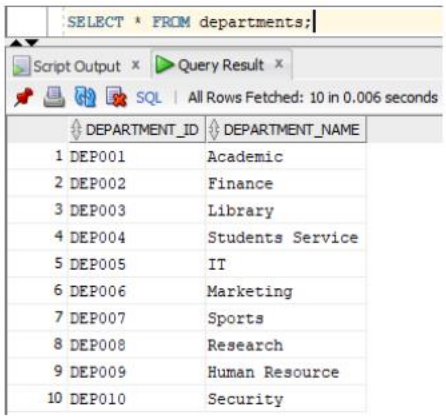
Figure 2 Insertion into Department Table

Note: - Do not forget to execute the commit statement after completing the insertion otherwise you will lose all the inserted data when you restart your Database.

10. Select Statement

Provide the screenshot for the execution of select statements through SQL developer for every entity.

For eg:



	DEPARTMENT_ID	DEPARTMENT_NAME
1	DEP001	Academic
2	DEP002	Finance
3	DEP003	Library
4	DEP004	Students Service
5	DEP005	IT
6	DEP006	Marketing
7	DEP007	Sports
8	DEP008	Research
9	DEP009	Human Resource
10	DEP010	Security

Figure 3 Select statement for Department

11. Forms

11.1 Dashboard or Home Page

Provide a screenshot of your dashboard.

Eg:

11.2 Complex Form and Queries

11.2.1 SQL Queries

Provide all the SQL queries for each complex form.

11.2.2 Complex Forms

Provide a screenshot of all complex forms.

11.3 Simple Form

Provide a screenshot of all basic forms.

12. User Manual

Provide the user manual for all the forms with arrows and graphics to explain the process. **Note: - Use graphical representation rather than explaining in detail for better understanding.**

13. Testing

For each form implemented, list the individual tests that have been carried out together with their results.

For basic forms, perform CRUD operation.
For complex forms, perform data filter through the dropdown.

Proper test cases with Before, During and After Screenshots of data.

For example: -

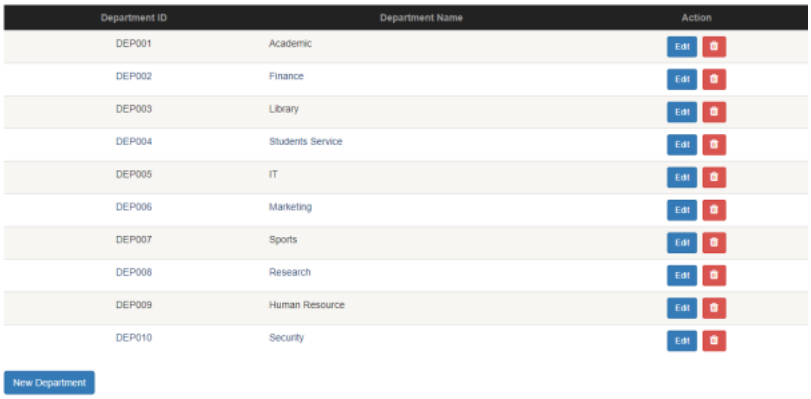


Figure 95: Departments Table

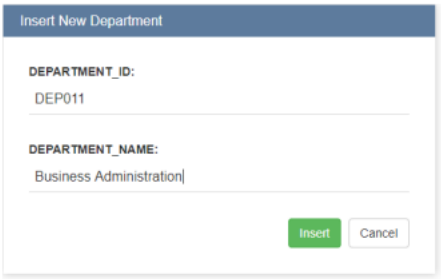


Figure 96: Inserting New Department Record

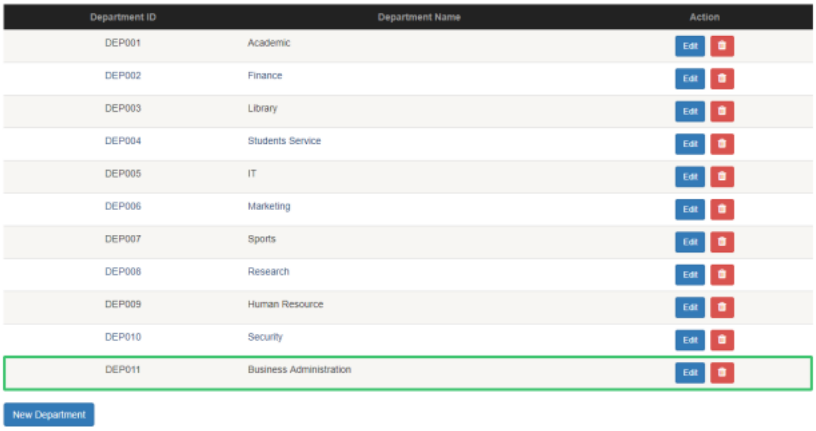


Figure 97: New Department Record shown in table

Follow the same procedure for update and delete as well for every basic web form.

Note: - There should be at least 2 failure test cases with correction measures.

14. Further Discussion

Your discussion should summarise your experience in undertaking this coursework with the mention of 5 tools/techniques learned during coursework.

15. Conclusion

References