

Open Ended Lab (OEL):

**CASE STUDY**

Submitted to:

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Submitted by:

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Course:

**CS-363L Database Systems**

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**Department of Computer Engineering**

**University of Engineering and Technology, Lahore**

**CASE STUDY:**

Department of Computer Engineering UET Lahore follows the Outcome Based Education where each subject is mapped with multiple CLOs. For the Lab work, these CLOs are further mapped to multiple rubrics. Rubrics are the rules that measure the students at different levels in particular component of an assessment.

You also need to identify project requirements clearly. Note its attributes, constraints, cardinalities, and participations etc. For your designed relations, see if they can be normalized or not. If required, normalize them and make sure that client’s requirements are being fulfilled in every relation via FDs. After that, create its ERD diagrams using available tools. Finally, create the database, tables and their schemas in MS SQL SERVER and add dummy data in it using Data Definition Language of SQL.

**Expected Outcome:**

Following features will be implemented in the application.

• Manage Students

• Manage CLOs

• Manage Rubrics

• Manage Assessments

• Manage Rubric Levels

• Mark the evaluations against a student And any other feature that can be helpful for the management of evaluations.

Instructor also requires multiple reports in pdf form that may include.

• CLO wise class result

• Assessment wise class result and any other reports that you can help the committee to streamline the process.

**Designed Relations:**

**Relation1: Student**(Fname,Lname,Rollno,Contactno)

**FD’s :**

Rollno 🡪 Fname,Lname,Contactno

This table is normalized.

**Relation2: CLO**(Id,Course\_id,CloNum,Description)

**FD’s :**

Id 🡪 Course\_id,Clo\_id,Description

Course\_id,Clo\_id 🡪Description

This table is normalized.

**Relation3: Rubrics**(Id,Clo\_id,Description,Level4,Level3,Level2,Level1)

**FD’s :**

Id 🡪 Clo\_id,Description,Level4,Level3,Level2,Level1

Clo\_id 🡪 Description,Level4,Level3,Level2,Level1

This table is normalized.

**Relation4: Assessments**(Rubric\_id,Description,Tmarks,Weightage,Date)

**FD’s :**

Rubric\_id 🡪 Description,Tmarks,Weightage,Date

This table is normalized.

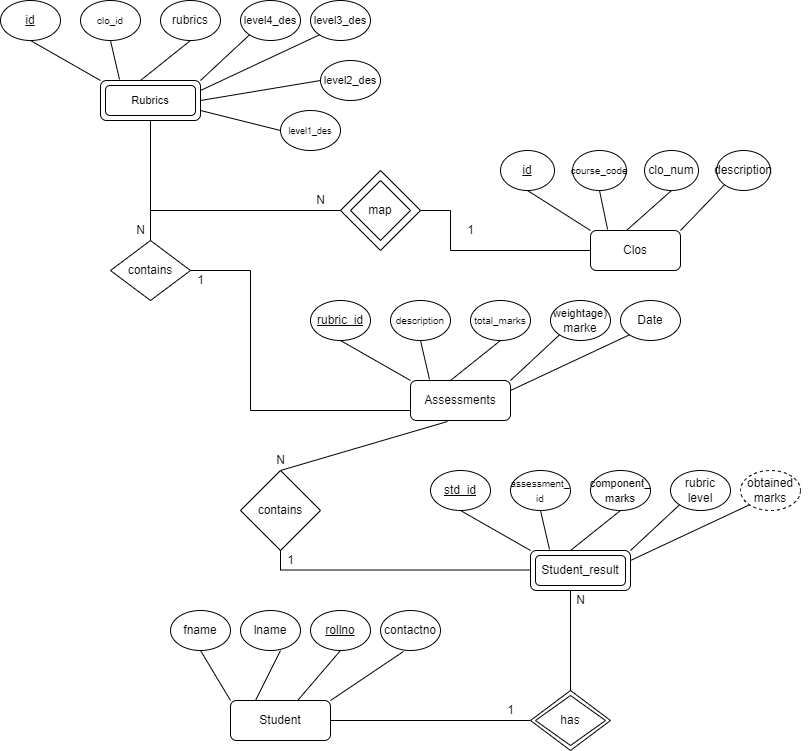
**Relation5: StdResult**(id,std\_rollno,assessment\_id,Component\_marks,rubricLevel,Obtained\_marks)

**FD’s :**

Id 🡪 std\_rollno,assessment\_id,Component\_marks,rubricLevel,Obtained\_marks

This table is normalized.

**ERD Diagram**

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