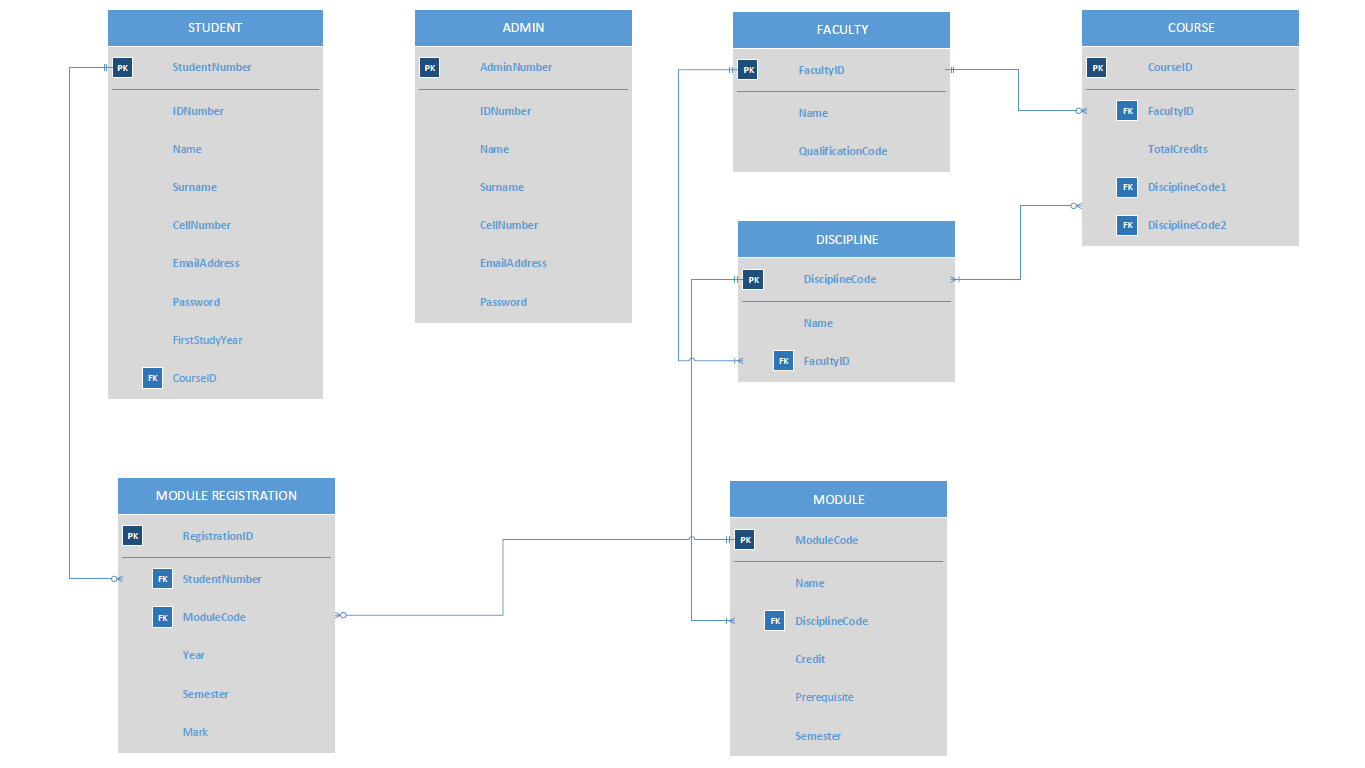
by



**Group Details**

|  |  |  |
| --- | --- | --- |
| Team Name | Fuzzy Logic | |
| Team Members | **Talha Vawda**  Luqmaan Haffejee  Azhar Mohamed  Ahmad Jawaad Shah | |
| SQL Server Login Details | Username | ist2hw |
| Password | ufjufh |

**Project Background**

**Entity Relationship Diagram**

**SQL Statements**

1. **An SQL statement that extracts and displays all data from a database table**

SELECT Name FROM FACULTY

*Display all the Faculties to a student when they are enrolling so that they can select which faculty they want to go into and from there they can select 2 Disciplines as their majors*

1. **An SQL statement that will update values of a table**

UPDATE STUDENT

SET Password = @Password

WHERE (StudentNumber = @StudentNumber) AND (IDNumber = @IDNumber) AND (CellNumber = @CellNumber)

*Allow the student to change (update) their password*

1. **At least three SQL statements with a WHERE clause**
2. **At least two SQL subqueries**
3. Get available Semester 1 modules for a specific year based on completion of prerequisites

SELECT ModuleCode, Name, DisciplineCode, Credit, Prerequisite, Semester  
FROM MODULE  
WHERE (Prerequisite IN (SELECT ModuleCode FROM [MODULE REGISTRATION]WHERE (StudentNumber = @StudNo) AND (Mark >= 50) AND (Year = @Year))) AND (DisciplineCode = @Major1 ORDisciplineCode = @Major2) AND (Semester = 1)

*Display all the modules a student can register for semester 1 of the year so that they can register for that semester. This is done by selecting all the modules that are part of their majors and filtering out all the modules they cannot do (they can only do a module if they passed the prerequisite module for that module [First-year modules have no prerequisite])*

1. Get available Semester 2 modules for a specific year based on completion of prerequisites

SELECT ModuleCode, Name, DisciplineCode, Credit, Prerequisite, Semester  
FROM MODULE  
WHERE (Prerequisite IN (SELECT ModuleCode FROM [MODULE REGISTRATION]WHERE (StudentNumber = @StudNo) AND (Mark >= 50) AND (Year = @Year))) AND (DisciplineCode = @Major1 ORDisciplineCode = @Major2) AND (Semester = 2)

*Display all the modules a student can register for semester 2 of the year so that they can register for that semester. This is done by selecting all the modules that are part of their majors and filtering out all the modules they cannot do (they can only do a module if they passed the prerequisite module for that module [First-year modules have no prerequisite])*

1. **At least two aggregation queries**
2. Get number of student registered for a module

SELECT COUNT(\*) AS TotalStudents

FROM [MODULE REGISTRATION]

WHERE (ModuleCode = @Mod) AND (Year = @Year)

*The administrator can view the number of students registered for a particular module which they can use to determine the appropriate classroom the have the lectures for that module in, and also to plan seating arrangements for exams*

1. Get the highest mark for a specific module in a specific year

SELECT MAX(Mark) AS Highest

FROM [MODULE REGISTRATION]

WHERE (ModuleCode = @Mod) AND (Year = @Year) AND (Mark <> - 1)

*The administrator can use the highest mark for a module to evaluate performance of that module and to award Certificate of Merit to the student with the highest mark*