

# CS262- 30 Business Needs

CS262- Database Systems  
2021-CS-33 — Muhammad Hamad Hassan

February 13, 2023

**Problem 1.** Give students name present in 2023

```
SELECT CONCAT(S.FirstName,' ',S.LastName) [FULL NAME]
FROM Student S
JOIN StudentAttendance SA
ON S.Id=SA.StudentId
JOIN ClassAttendance CA
ON CA.Id=SA.AttendanceId
WHERE YEAR(CA.AttendanceDate)='2023' AND month(CA.AttendanceDate)='2'
```

**Problem 2.** Give the student list those absent in 2023

```
SELECT CONCAT(S.FirstName,' ',S.LastName) [FULL NAME]
FROM Student S JOIN StudentAttendance SA
ON S.Id=SA.StudentId
JOIN ClassAttendance CA
ON CA.Id=SA.AttendanceId
WHERE SA.AttendanceStatus is null
```

**Problem 3.** Give CLO-2 Rubric Detail and measurement level number

```
SELECT RL.Details,RL.MeasurementLevel
FROM Rubric R JOIN RubricLevel RL
ON R.Id=RL.RubricId
WHERE R.CloId=2
```

**Problem 4.** Give Rubric-1 all Rubrics Level Detail

```
SELECT RL.Details,RL.MeasurementLevel
FROM Rubric R JOIN RubricLevel RL
ON R.Id=RL.RubricId
WHERE R.Id=1;
```

**Problem 5.** Give Assessment-1 all Components name and total marks

```
SELECT AC.Name,AC.TotalMarks
FROM Assessment A JOIN AssessmentComponent AC
ON A.Id=AC.AssessmentId
WHERE A.Id=1
```

**Problem 6.** Give Assessment-1 corresponding CLO Number

```
SELECT R.CloId
FROM Assessment A JOIN AssessmentComponent AC
ON A.Id=AC.AssessmentId
JOIN Rubric R
ON AC.RubricId=R.Id
WHERE CloId=2
```

**Problem 7.** Give the Assessment-1 Rubric

```

SELECT AC.Name,R.Details,AC.TotalMarks
FROM AssessmentComponent AC JOIN Rubric R
ON AC.RubricId=R.Id
WHERE AC.AssessmentId=1

```

**Problem 8.** Give the Student Name who's assessment are not added into the system

```

SELECT CONCAT(S.FirstName,' ',S.LastName) [Full Name]
FROM Student S JOIN StudentResult SR
ON S.Id=SR.StudentId
WHERE SR.StudentId IS NOT NULL

```

**Problem 9.** Calculate the student Obtained marks in the assessemnt

```

SELECT AC.Name AS Component,R.Details AS Rubric,AC.TotalMarks AS [Component Marks]
,(SELECT Max(RL.MeasurementLevel) AS [Student Level Rubric] FROM StudentResult JOIN RubricLevel RL
ON SR.RubricMeasurementId=RL.Id)
,(SELECT Max((3/4)*10)
FROM StudentResult SR JOIN RubricLevel RL
ON SR.RubricMeasurementId=RL.Id
JOIN AssessmentComponent AC
ON AC.Id=SR.AssessmentComponentId)
FROM StudentResult SR JOIN AssessmentComponent AC
ON SR.AssessmentComponentId=AC.Id
JOIN Rubric R
ON R.Id=AC.RubricId

```

**Problem 10.** Give the students who fullfill the particular CLO

```

SELECT CONCAT(S.FirstName,' ',S.LastName) [Full Name]
FROM StudentResult SR JOIN RubricLevel RL
ON SR.RubricMeasurementId=RL.Id
JOIN Student S
ON S.Id=SR.StudentId
JOIN Rubric R
ON R.Id=RL.RubricId
JOIN Clo C
ON C.Id=R.CloId
WHERE CloId=2

```

**Problem 11.** Find the duplicate students who taking the same CLO

```

SELECT CONCAT(S.FirstName,' ',S.LastName) [Full Name]
FROM StudentResult SR JOIN RubricLevel RL
ON SR.RubricMeasurementId=RL.Id
JOIN Student S
ON S.Id=SR.StudentId
JOIN Rubric R
ON R.Id=RL.RubricId
JOIN Clo C
ON C.Id=R.CloId
WHERE CloId=2
GROUP BY S.FirstName,S.LastName
HAVING COUNT(S.FirstName)>1

```

**Problem 12.** Display all enrolled students

```

SELECT *
FROM Student S
WHERE S.Status=1

```

**Problem 13.** Display all the assignemnt with total weightage

```
SELECT SUM(A.TotalWeightage) AS [Total Weightages]
FROM Assessment A
```

**Problem 14.** Add new student into the database

```
INSERT INTO STUDENT(FirstName,LastName,Contact,Email,RegistrationNumber,Status)
VALUES('Syed Hashir','Husnain','03000000000','abc@example.com','2021-CS-1',1)
```

**Problem 15.** Change the student contact number of roll number 3

```
UPDATE Student
SET Contact='03000000001'
WHERE RegistrationNumber='2021-CS-3'
```

**Problem 16.** Delete the students whose id is 2

```
DELETE from STUDENT
WHERE ID=2
```

**Problem 17.** Mark the student attendance

```
INSERT INTO ClassAttendance(AttendanceDate)
VALUES(GETDATE())
```

**Problem 18.** Change the attendance status

```
UPDATE ClassAttendance
SET AttendanceDate=GETDATE()
where ID=5
```

**Problem 19.** Remove the id number 2 attendance

```
DELETE ClassAttendance
WHERE ID=2
```

**Problem 20.** Add the CLO into the system

```
INSERT INTO Clo
VALUES('CLO 2: Implement abstraction',GETDATE(),GETDATE())
```

**Problem 21.** Change the CLO1 Detail

```
UPDATE CLO
SET Name ='CLO 1: Apply composition, inheritance'
WHERE Id=1
```

**Problem 22.** Add the rubric detail into the system

```
INSERT INTO Rubric(Id,Details,CloId)
VALUES(3,'Testing',2)
```

**Problem 23.** Update the rubric detail whose id is 1

```
UPDATE Rubric SET Details='Design '
WHERE ID=1
```

**Problem 24.** Insert the rubric level of rubric number 2

```
INSERT INTO RubricLevel
VALUES(2, 'Program does not compile or interpret due to lack of syntax knowledge',1)
```

**Problem 25.** Get the all rubric information

```
SELECT *
FROM RubricLevel
```

**Problem 26.** Change the student attendance detail

```
UPDATE StudentAttendance SET AttendanceStatus=0 WHERE  
AttendanceId=5 AND StudentId=6
```

**Problem 27.** Create the Quiz-1 Assessment

```
INSERT INTO Assessment  
VALUES('Quiz-1',GETDATE(),10,10)
```

**Problem 28.** Provide the assessment 1 details

```
INSERT INTO AssessmentComponent  
VALUES('Question-3',1,5,GETDATE(),GETDATE(),1)
```

**Problem 29.** Add the student result assessment information of CLO no 2

```
INSERT INTO StudentResult  
VALUES(9,3,5,GETDATE())
```

**Problem 30.** View all marked attendance

```
SELECT *  
FROM ClassAttendance
```