

SQL PROJECT

STUDENT MANAGEMENT SYSTEM

www.reallygreatsite.com

SUMMARY

This project covers:

- Table design and relationships
- Basic queries
- JOINS
- Aggregates (COUNT, AVG)
- Subqueries and NULL handling
- Data modification (UPDATE, DELETE)

MODULES & TABLES INVOLVED:

1. Students Table

Stores student info: name, age, gender, etc.

2. Courses Table

Stores course info: course name, credits.

3. Enrollments Table

Links students with courses and records grades.

4. Departments Table (Optional)

Stores academic department information.

Q1. LIST ALL STUDENTS.

```
SELECT * FROM Students;  
CREATE TABLE Students (  
    StudentID INT PRIMARY KEY,  
    Name VARCHAR(100),  
    Gender VARCHAR(10),  
    Age INT  
)
```

Q2. FIND THE NAMES OF STUDENTS WHO HAVE ENROLLED IN THE 'MATH' COURSE.

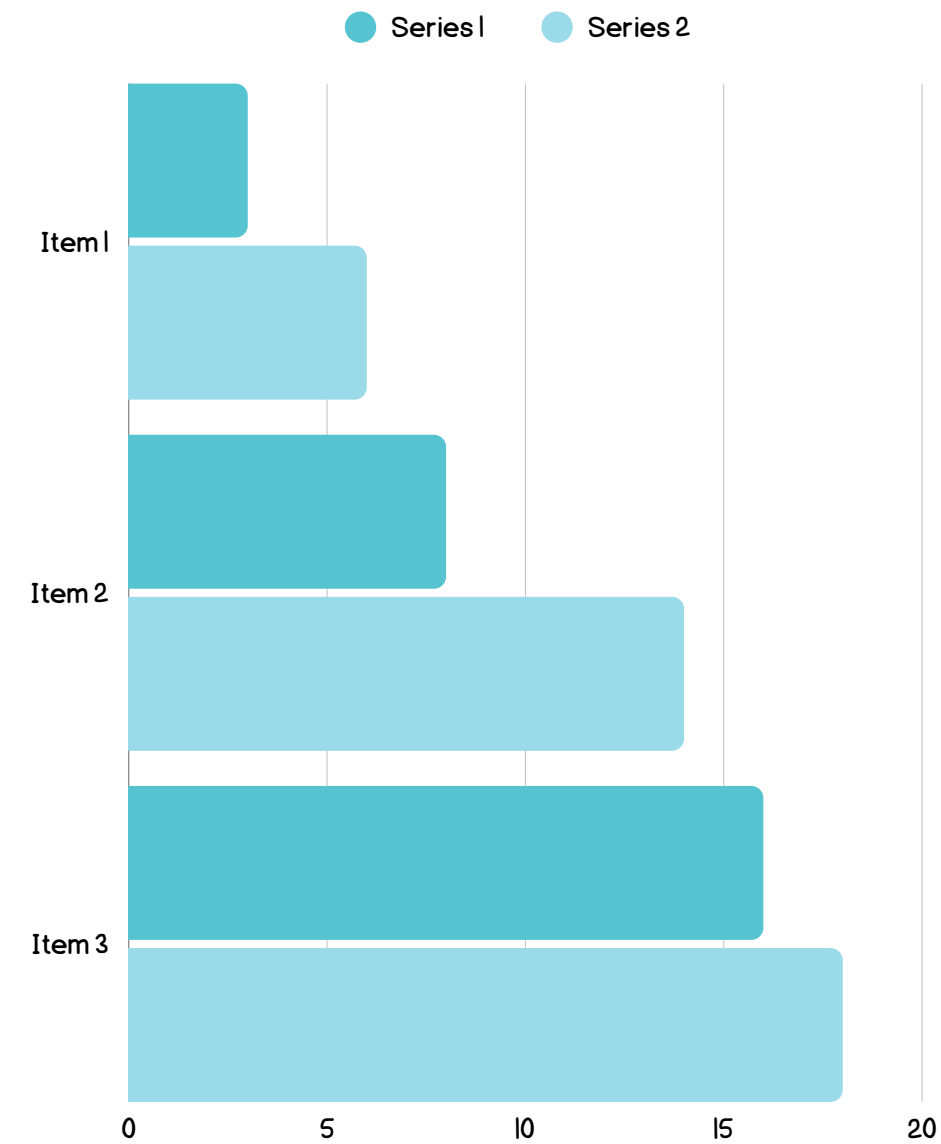
- SELECT s.Name
- FROM Students s
- JOIN Enrollments e ON s.StudentID = e.StudentID
- JOIN Courses c ON e.CourseID = c.CourseID
- WHERE c.CourseName = 'Math';

Q3. COUNT THE NUMBER OF COURSES EACH STUDENT IS ENROLLED IN.

```
SELECT s.Name,  
COUNT(e.CourseID) AS  
CourseCount  
FROM Students s  
JOIN Enrollments e ON  
s.StudentID = e.StudentID  
GROUP BY s.Name;
```

Q4. FIND STUDENTS WHO GOT GRADE 'A'.

```
SELECT s.Name, c.CourseName
FROM Students s
JOIN Enrollments e ON
s.StudentID = e.StudentID
JOIN Courses c ON e.CourseID =
c.CourseID
WHERE e.Grade = 'A';
```



Q5. LIST COURSES AND NUMBER OF STUDENTS ENROLLED IN EACH.

```
SELECT c.CourseName, COUNT(e.StudentID) AS StudentCount
      FROM Courses c
     LEFT JOIN Enrollments e ON c.CourseID = e.CourseID
    GROUP BY c.CourseName;
```


Q6. FIND THE AVERAGE AGE OF STUDENTS.

```
SELECT AVG(Age) AS  
AverageAge FROM  
Students;
```

Q7. SHOW STUDENTS NOT ENROLLED IN ANY COURSE.

```
SELECT s.Name  
FROM Students s  
LEFT JOIN Enrollments e ON  
s.StudentID = e.StudentID  
WHERE e.EnrollmentID IS NU  
LL;
```

Q8. LIST ALL GRADES OBTAINED BY 'ALICE'.

- SELECT c.CourseName, e.Grade
- FROM Enrollments e
- JOIN Courses c ON e.CourseID = c.CourseID
- JOIN Students s ON e.StudentID = s.StudentID
- WHERE s.Name = 'Alice';

Q9. CHANGE THE GRADE OF STUDENT WITH ENROLLMENTID = 2 TO 'A'.

UPDATE Enrollments SET Grade = 'A' WHERE EnrollmentID = 2;

Q10. DELETE A STUDENT WHO HAS ID = 3.

```
DELETE FROM Students WHERE  
StudentID = 3;
```

Studio Shodwe

THANK YOU

BY RUFUS STEWART

www.reallygreatsite.com