

# **Final project**

## **Database of Student Attendance Tracker**

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**(Final Project ...Fall-2024)**

**(August 27, 2025)**

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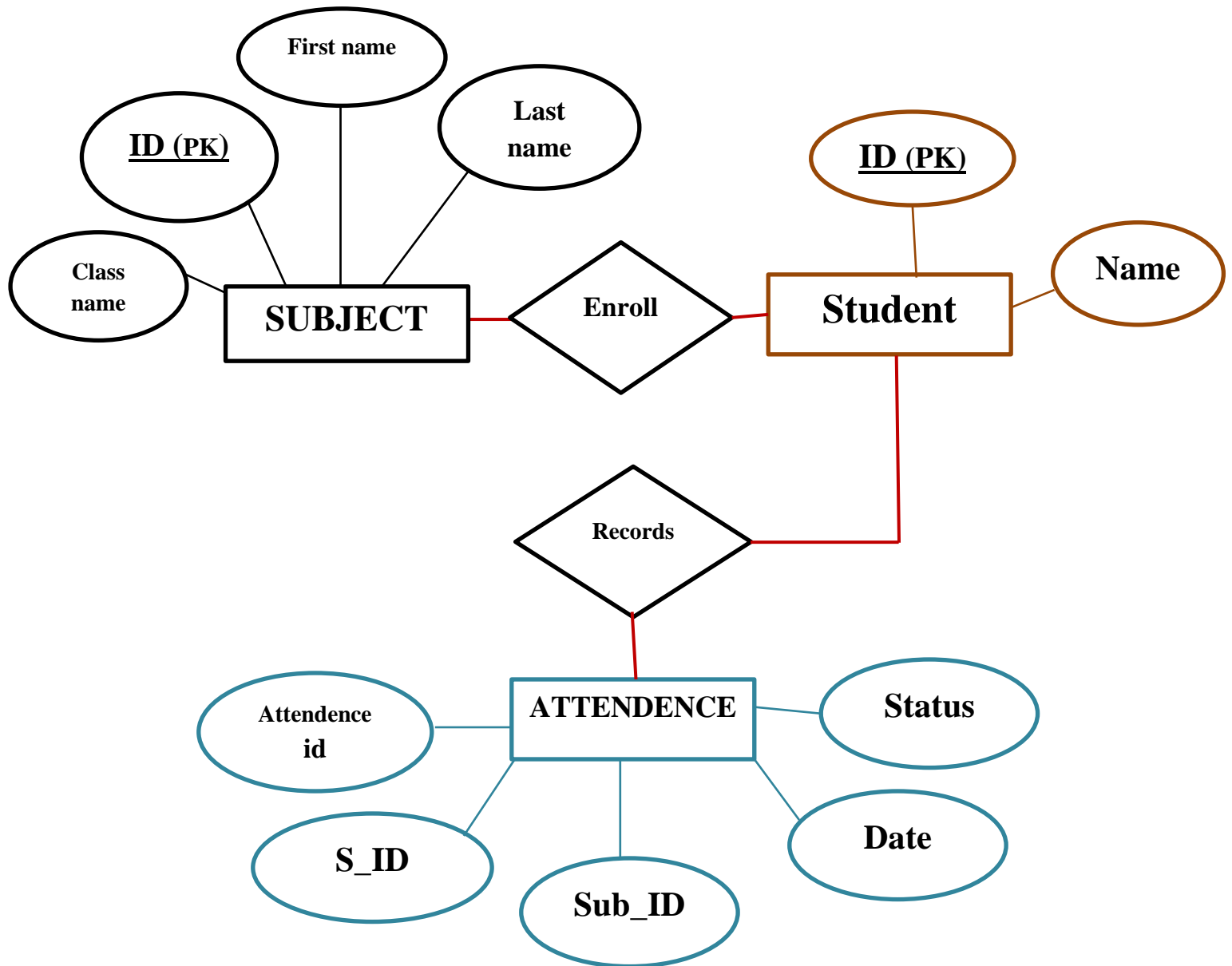
**Submitted To**

**Mr. Muhammad Daniyal**

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# ER Diagram of a Student Attendance Tracker



```
CREATE DATABASE StudentAttendanceTracker;
```

```
USE StudentAttendanceTracker;
```

```
CREATE TABLE Students (
```

```
    StudentID INT PRIMARY KEY,
```

```
    FirstName VARCHAR(50) NOT NULL,
```

```
    LastName VARCHAR(50) NOT NULL,
```

```
    ClassName VARCHAR(50) NOT NULL
```

```
);
```

```
CREATE TABLE Subjects(
```

```
    SubjectID INT PRIMARY KEY,
```

```
    SubjectName VARCHAR(50) NOT NULL
```

```
);
```

```
CREATE TABLE Attendance (
```

```
    AttendanceID INT PRIMARY KEY,
```

```
    StudentID INT,
```

```
    SubjectID INT,
```

```
    AttendanceDate DATE NOT NULL,
```

```
    Status varchar (10) CHECK (Status In ('Present', 'Absent', 'Late')) NOT NULL
```

```
    FOREIGN KEY (StudentID) REFERENCES Students(StudentID),
```

```
    FOREIGN KEY (SubjectID) REFERENCES Subjects(SubjectID)
```

```
);
```

```
INSERT INTO Students (StudentID, FirstName, LastName, ClassName)
```

```
VALUES
```

```
(1, 'Alice', 'Smith', '10-A'),
```

```
(2, 'Bob', 'Johnson', '10-A'),
```

```
(3, 'Charlie', 'Brown', '10-B');
```

```
INSERT INTO Subjects (SubjectID, SubjectName)
```

```
VALUES
```

```
(1, 'Mathematics'),
```

```
(2, 'Physics'),
```

```
(3, 'Chemistry');
```

```
INSERT INTO Attendance (AttendanceID, StudentID, SubjectID, AttendanceDate, Status)
```

```
VALUES
```

```
(1, 1, 1, '2025-08-01', 'Present'),
```

```
(2, 2, 1, '2025-08-01', 'Absent'),
```

```
(3, 3, 2, '2025-08-01', 'Late');
```

**--adding column**

```
ALTER TABLE Students
```

```
ADD Email VARCHAR(15);
```

```
SELECT * from Students;
```

### **--drop column**

```
ALTER TABLE Students  
DROP COLUMN Email;  
SELECT * from Students;
```

### **--update a student name**

```
UPDATE Students  
SET FirstName = 'Alicia'  
WHERE StudentID = 1;  
SELECT*from Students;
```

### **--Delete row**

```
DELETE FROM Attendance  
WHERE AttendanceID = 2;  
SELECT*from Attendance;
```

### **--select students who are present**

```
SELECT* FROM Attendance WHERE Status = 'Present';
```

### **--ordering attendance**

```
SELECT* FROM Attendance ORDER BY AttendanceDate DESC;
```

**-- Joining tables**

```
SELECT s.FirstName, s.LastName, sub.SubjectName, sa.AttendanceDate, sa.Status
```

```
FROM Students s
```

```
JOIN Attendance sa ON s.StudentID = sa.StudentID
```

```
JOIN Subjects sub ON sa.SubjectID = sub.SubjectID;
```