

studentDetails table:

	StudentId	StudentName	GPA	Branch	section
1	159103036	Mohit Agarwal	8.9	CCE	A
2	159103037	Rohit Agarwal	5.2	CCE	A
3	159103038	Shohit Garg	7.1	CCE	B
4	159103039	Mrinal Malhotra	7.9	CCE	A
5	159103040	Mehreet Singh	5.6	CCE	A
6	159103041	Arjun Tehlan	9.2	CCE	B

SubjectDetails table:

	SubjectId	SubjectName	MaxSeats	RemainingSeats
1	PO1491	Basics of Political Science	60	2
2	PO1492	Basics of Accounting	120	119
3	PO1493	Basics of Financial Markets	90	90
4	PO1494	Eco philosophy	60	50
5	PO1495	Automotive Trends	60	60

Preference table:

	StudentId	SubjectId	Preferences
1	159103036	PO1491	1
2	159103036	PO1492	2
3	159103036	PO1493	3
4	159103036	PO1494	4
5	159103036	PO1495	5

Procedure:

```
CREATE PROCEDURE AssignStudents
AS
BEGIN
    SELECT *
    FROM StudentPreference AS sp
    JOIN SubjectDetails AS sd
    ON sp.SubjectId = sd.SubjectId
    join StudentDetails as sds on sds.StudentId = sp.StudentId;
    SELECT *
    FROM StudentDetails AS sds
    ORDER BY sds.GPA DESC;
    DECLARE @studentId INT;
    DECLARE @subjectId varchar(10);
    DECLARE @preference INT;
    WHILE @studentId IS NOT NULL
    while @preference < 5
    BEGIN
        SET @studentId = (SELECT TOP (1) sp.StudentId FROM StudentPreference AS sp ORDER BY sp.Preferences DESC);
        IF EXISTS (SELECT * FROM SubjectDetails AS a WHERE a.SubjectId = @subjectId AND a.RemainingSeats > 0 )
        INSERT INTO allotment(StudentId, SubjectId) VALUES (@studentId, @subjectId);
        ELSE
        SET @preference = @preference + 1;
        SET @subjectId = @subjectId;
        end;
        insert into unallotment values (@studentId);
        end;
    
```

For execution we use:

```
exec AssignStudents;
```