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1  --CELEBAL TECHNOLOGIES
2  --SUMMER INTERN
3  --CHETANYA YADAV
4  --ID:CT_CSI_SQ_1260
5  --ASSIGNMENT-Subject Change Request Problem
6
7
8
9  -- Create a new database
10 CREATE DATABASE CollegeManagement;
11 GO
12
13 -- Use the newly created database
14 USE CollegeManagement;
15 GO
16
17 -- Create the SubjectAllotments table
18 CREATE TABLE SubjectAllotments (
19     StudentID varchar(50),
20     SubjectID varchar(50),
21     Is_Valid bit
22 );
23 GO
24
25 -- Create the SubjectRequest table
26 CREATE TABLE SubjectRequest (
27     StudentID varchar(50),
28     SubjectID varchar(50)
29 );
30 GO
31
32 -- Insert sample data into SubjectAllotments
33 INSERT INTO SubjectAllotments (StudentID, SubjectID, Is_Valid)
34 VALUES
35 ('159103036', 'P01491', 1),
36 ('159103036', 'P01492', 0),
37 ('159103036', 'P01493', 0),
38 ('159103036', 'P01494', 0),
39 ('159103036', 'P01495', 0);
40 GO
41
42 -- Insert a sample request into SubjectRequest
43 INSERT INTO SubjectRequest (StudentID, SubjectID)
44 VALUES
45 ('159103036', 'P01496');
46 GO
47
48 -- Create the stored procedure
49 CREATE PROCEDURE UpdateSubjectAllotments
50     @StudentID varchar(50),
51     @RequestedSubjectID varchar(50)
52 AS
53 BEGIN
```

```
54 SET NOCOUNT ON;
55
56 -- Check if the student exists in the SubjectAllotments table
57 IF EXISTS (SELECT 1 FROM SubjectAllotments WHERE StudentID = @StudentID)
58 BEGIN
59     -- Check if the current subject is different from the requested subject
60     IF EXISTS (SELECT 1 FROM SubjectAllotments WHERE StudentID = @StudentID AND Is_Valid = 1 AND SubjectID != @RequestedSubjectID)
61     BEGIN
62         -- Invalidate the current subject
63         UPDATE SubjectAllotments
64         SET Is_Valid = 0
65         WHERE StudentID = @StudentID AND Is_Valid = 1;
66
67         -- Insert the new subject as valid
68         INSERT INTO SubjectAllotments (StudentID, SubjectID, Is_Valid)
69         VALUES (@StudentID, @RequestedSubjectID, 1);
70     END
71 ELSE IF NOT EXISTS (SELECT 1 FROM SubjectAllotments WHERE StudentID = @StudentID AND Is_Valid = 1)
72 BEGIN
73     -- If no current subject is valid, insert the new subject as valid
74     --Chetanya Yadav
75     INSERT INTO SubjectAllotments (StudentID, SubjectID, Is_Valid)
76     VALUES (@StudentID, @RequestedSubjectID, 1);
77 END
78 END
79 ELSE
80 BEGIN
81     -- If the student does not exist in the SubjectAllotments table, insert the new subject as valid
82     INSERT INTO SubjectAllotments (StudentID, SubjectID, Is_Valid)
83     VALUES (@StudentID, @RequestedSubjectID, 1);
84 END
85 END;
86 GO
87
88 -- Execute the stored procedure
89 EXEC UpdateSubjectAllotments @StudentID = '159103036',
    @RequestedSubjectID = 'P01496';
90 GO
91
92 -- Check the updated SubjectAllotments table
93 SELECT * FROM SubjectAllotments;
94 GO
95
96
```

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