

متین برهانی - ۹۵۲۶۷۰۳

تمرین ۶ SQL

سوال اول:

```
alter table Taken_Courses  
add Term As (CONCAT(CONVERT(NVARCHAR(20),YEAR),' ',Semester))
```

120 %

Results

Messages

| | ID | StudentID | CourseID | Semester | Year | Grade | TotalCredits | Term |
|----|----|-----------|----------|----------|------|-------|--------------|-------------|
| 1 | 1 | 9624897 | 50 | fall | 2020 | 18 | 18 | 2020 fall |
| 2 | 2 | 9423642 | 51 | fall | 2020 | 15 | 15 | 2020 fall |
| 3 | 9 | 9219603 | 51 | spring | 2020 | 19 | 19 | 2020 spring |
| 4 | 10 | 9624897 | 51 | fall | 2020 | 14 | 14 | 2020 fall |
| 5 | 11 | 9624897 | 52 | fall | 2020 | 18 | 18 | 2020 fall |
| 6 | 12 | 9624897 | 53 | fall | 2020 | 9 | 9 | 2020 fall |
| 7 | 19 | 9608097 | 57 | fall | 2020 | 7 | 7 | 2020 fall |
| 8 | 21 | 9354698 | 57 | fall | 2020 | 10 | 10 | 2020 fall |
| 9 | 22 | 9354698 | 58 | fall | 2020 | 9 | 9 | 2020 fall |
| 10 | 23 | 9354698 | 59 | fall | 2020 | 12 | 12 | 2020 fall |
| 11 | 24 | 9542361 | 54 | fall | 2020 | 20 | 20 | 2020 fall |

سوال دوم

```

CREATE FUNCTION TotalGrade
(
    -- Add the parameters for the function here
    @id int
)
RETURNS int
AS
BEGIN
    -- Declare the return variable here
    DECLARE @credit int;

    -- Add the T-SQL statements to compute the return value here
    select @credit=(Grade*Credits)
    from Taken_Courses join Courses on Taken_Courses.CourseID = Courses.ID
    where @id=Taken_Courses.ID;

    -- Return the result of the function
    RETURN @credit
END

```

تابع تعریف شده

```
alter table Taken_Courses
add TotalGrade AS dbo.TotalGrade(ID)
```

109 %

Results Messages

| | ID | StudentID | CourseID | Semester | Year | Grade | Term | TotalGrade |
|----|----|-----------|----------|----------|------|-------|-------------|------------|
| 2 | 2 | 9423642 | 51 | fall | 2020 | 15 | 2020 fall | 45 |
| 3 | 9 | 9219603 | 51 | spring | 2020 | 19 | 2020 spring | 57 |
| 4 | 10 | 9624897 | 51 | fall | 2020 | 14 | 2020 fall | 42 |
| 5 | 11 | 9624897 | 52 | fall | 2020 | 18 | 2020 fall | 54 |
| 6 | 12 | 9624897 | 53 | fall | 2020 | 9 | 2020 fall | 27 |
| 7 | 19 | 9608097 | 57 | fall | 2020 | 7 | 2020 fall | 21 |
| 8 | 21 | 9354698 | 57 | fall | 2020 | 10 | 2020 fall | 30 |
| 9 | 22 | 9354698 | 58 | fall | 2020 | 9 | 2020 fall | 27 |
| 10 | 23 | 9354698 | 59 | fall | 2020 | 12 | 2020 fall | 36 |
| 11 | 24 | 9542361 | 54 | fall | 2020 | 20 | 2020 fall | 60 |
| 12 | 25 | 9542361 | 55 | fall | 2020 | 19 | 2020 fall | 57 |

نتیجه تابع

سوال سوم:

```
select FirstName, LastName, ROW_NUMBER() OVER (ORDER BY BirthDay) as PartitionBirthDay  
, ID, DepartmentID, Salary  
from Teachers
```

132 %

Results Messages

| | FirstName | LastName | PartitionBirthDay | ID | DepartmentID | Salary |
|---|-----------|-----------|-------------------|---------|--------------|------------|
| 1 | Ali | Mahdavi | 1 | 1225039 | 22522 | 7080000.00 |
| 2 | Mehdi | Ahmadi | 2 | 1224503 | 22522 | 9020000.00 |
| 3 | Mehdi | Sarani | 3 | 1224509 | 22523 | 9720000.00 |
| 4 | Ali | Rezaei | 4 | 1224508 | 22012 | 8724500.00 |
| 5 | Fateme | MinShamsi | 5 | 1220985 | 22025 | 7228000.00 |