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1  -- Switch to the Required Database
2  Use TEST;
3
4  -- View the Records in the EMP and EMP_SAL Tables
5  Select * From EMP;
6  Select * From EMP_SAL;
7
8  -- Assignment 8
9
10 -- 1) Create a Function CALC to Perform The Specified Operation on the Given ↗
    Two Numbers.
11 Create Function CALC (@A As Int, @B As Int, @D As Char(1))
12 Returns Int
13 As
14 BEGIN
15     Declare @C As Int;
16     If @D = '+'
17         Set @C = @A + @B;
18     Else If @D = '-'
19         Set @C = @A - @B;
20     Else If @D = '*'
21         Set @C = @A * @B;
22     Else If @D = '/'
23         Set @C = @A / @B;
24     Else If @D = '%'
25         Set @C = @A % @B;
26     Else
27         Set @C = 0;
28     Return @C;
29 END;
30 -- Perform Addition of Two Numbers
31 Select DBO.CALC(65, 25, '+') As Addition;
32
33 -- Perform Subtraction of Two Numbers
34 Select DBO.CALC(65, 25, '-') As Subtraction;
35
36 -- Perform Product of Two Numbers
37 Select DBO.CALC(65, 25, '*') As Product;
38
39 -- Perform Division of Two Numbers
40 Select DBO.CALC(65, 25, '/') As Division;
41
42 -- Perform Remainder of Two Numbers
43 Select DBO.CALC(65, 25, '%') As Remainder;
44
45 -- 2) Function to Generate the EMAIL ID by Accepting NAME & EID. EMAIL Should ↗
    Contain 1st Character of 1st NAME, 1st Character of Last NAME, Last 3 ↗
    Digits of EMP ID Followed By @RCG.COM
46 Create Function OMAIL (@ID As Char(5), @N As VarChar(50), @D As VarChar(50))
47 Returns VarChar(100)
48 As
49 BEGIN
50     Declare @EM As VarChar(100);
51     Declare @L As Int;
52     Declare @S As Int;
53     Declare @LN As VarChar(20);
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54
55     Set @L = LEN(@N);
56     Set @S = CHARINDEX(' ', @N);
57     Set @LN = RIGHT(@N, @L - @S);
58
59     Set @EM= UPPER(CONCAT(LEFT (@N, 1), LEFT (@LN, 1), RIGHT (@ID, 4), '@',
60         @D, '.COM'));
61
62     Return @EM;
63 END;
64 -- Verification of the Function is Working Properly
65 SELECT DBO.OMAIL('E0001', 'Rupak Jogi', 'RCG');
66
67 -- Applying Function on EMP Table
68 Select EID, NAME, DBO.OMAIL(EID, NAME, 'RCG') AS 'OFFICIAL_EMAIL'
69 FROM EMP;
70
71 -- 3) Function To Return EID, NAME, DESI, DEPT, SALARY of the Employees of a
72     Specified Department.
73 Create Function EMPDEPT (@D As VarChar(50))
74 Returns Table
75 As
76     Return(Select EMP.EID, NAME, DESI, DEPT, SALARY
77         From EMP
78         INNER JOIN EMP_SAL
79         ON EMP.EID = EMP_SAL.EID
80         Where DEPT = @D);
81 -- Verification of the EMPDEPT Function
82 Select * From DBO.EMPDEPT('OPS');
83
84 -- 4) Function to Display the NAME, DEPT, DESI, CITY of the Employees Who
85     Have the Birthday in the Current Month.
86 Create Function EMPBIRTHM (@BM As Int)
87 Returns Table
88 As
89     Return(Select EMP.EID, NAME, DEPT, DESI, CITY
90         From EMP
91         INNER JOIN EMP_SAL
92         ON EMP.EID = EMP_SAL.EID
93         Where Month(DOB) = @BM);
94 -- Verification of the EMPBIRTHM Function
95 Select * From DBO.EMPBIRTHM(7);
96
97 -- 5) Function to Display the NAME, DEPT and DOJ of Employees Who Have
98     Completed 5 Years in the Company.
99 Create Function EMPCY (@CY As Int)
100 Returns Table
101 As
102     Return(Select EMP.EID, NAME, DEPT, DOJ, DATEDIFF(Year, DOJ, GETDATE())
103         As YEARS_COMPLETED
104         From EMP
105         INNER JOIN EMP_SAL
106         ON EMP.EID = EMP_SAL.EID
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105         Where DATEDIFF(Year, DOJ, GETDATE()) = @CY);
106
107 -- Verification of the EMPBIRTHM Function
108 Select * From DBO.EMPCY(5);
```