

IT252 – DATABASE SYSTEMS

ASSIGNMENT 2

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1)

Code Written:

```
11 |
12 DELIMITER $$
13 CREATE PROCEDURE MULTI_TABLE(IN NUM1 INT, IN NUM2 INT)
14 BEGIN
15
16     DECLARE ANS VARCHAR(500) DEFAULT "";
17     DECLARE START INT DEFAULT 1;
18
19     WHILE START <= NUM2 DO
20
21         SET ANS = CONCAT(ANS, NUM1, '*', START, '=', NUM1*START, ' , ');
22
23         SET START = START + 1;
24     END WHILE;
25
26     SELECT ANS;
27 END $$
28 DELIMITER ;
29
30 CALL MULTI_TABLE(2,10);
31
```

Output:

```
ANS
2*1=2 , 2*2=4 , 2*3=6 , 2*4=8 , 2*5=10 , 2*6=12 , 2*7=14 , 2*8=16 , 2*9=18 , 2*10=20 ,
```

2)

Code Written:

```
32  
33 DELIMITER $$  
34 CREATE FUNCTION ODDEVEN(NUM INT)  
35 RETURNS VARCHAR(20)  
36 DETERMINISTIC  
37 BEGIN  
38  
39     IF (NUM MOD 2) THEN  
40         RETURN 'FALSE';  
41     ELSE  
42         RETURN 'TRUE';  
43  
44     END IF;  
45  
46 END $$  
47 DELIMITER ;  
48  
49 SELECT ODDEVEN(89);  
50
```

Output:

```
ODDEVEN(89)  
FALSE
```

PTO

3)

Table Creation and its values:

```
52
53 CREATE TABLE EMPLOYEE(
54 ID INT,
55 NAME VARCHAR(20),
56 DEPTNO INT,
57 SALARY INT);
58
59 INSERT INTO EMPLOYEE VALUES (1, 'John', 3, 60000);
60 INSERT INTO EMPLOYEE VALUES (2, 'Smith', 4, 75000);
61 INSERT INTO EMPLOYEE VALUES (3, 'Peter', 1, 45000);
62 INSERT INTO EMPLOYEE VALUES (4, 'Abbie', 1, 41000);
63 INSERT INTO EMPLOYEE VALUES (5, 'Robin', 1, 75000);
64
65
```

Code Written (Through Cursor):

```
80
81 DELIMITER $$
82 CREATE PROCEDURE FINDHIGHESTCURSE()
83 BEGIN
84     DECLARE NAMES VARCHAR(20) DEFAULT "";
85     DECLARE FINISHED INT DEFAULT 0;
86     DECLARE TEMPSAL INT DEFAULT 0;
87     DECLARE ANSWER INT DEFAULT 0;
88     DECLARE CURSE CURSOR FOR SELECT SALARY FROM EMPLOYEE;
89     DECLARE CONTINUE HANDLER FOR NOT FOUND SET FINISHED = 1;
90     OPEN CURSE;
91     LOOPA: LOOP
92         FETCH CURSE INTO TEMPSAL;
93         IF FINISHED = 1 THEN
94             LEAVE LOOPA;
95         END IF;
96         IF TEMPSAL > ANSWER THEN
97             SET ANSWER = TEMPSAL;
98         END IF;
99     END LOOP;
100     CLOSE CURSE;
101     SELECT NAME,DEPTNO,SALARY FROM EMPLOYEE WHERE SALARY = ANSWER;
102 END $$
103 DELIMITER ;
104 CALL FINDHIGHESTCURSE();
105
```

Output:

NAME	DEPTNO	SALARY
Smith	4	75000
Robin	1	75000

//Because 2 people have the highest salary, both rows got returned.
