

```
mysql> create database colllege;
Query OK, 1 row affected (0.01 sec)
```

```
mysql> use colllege;
Database changed
```

```
mysql> create table student
-> (roll int not null,
-> name varchar(10),
-> class varchar(20),
-> marks double,
-> age int not null);
```

```
mysql> desc Student;
```

Field	Type	Null	Key	Default	Extra
roll	int	NO		NULL	
name	varchar(10)	YES		NULL	
class	varchar(20)	YES		NULL	
marks	double	YES		NULL	
age	int	NO		NULL	

```
5 rows in set (0.02 sec)
```

```
mysql> insert into Student values
-> (1,"SOHAN","DAC",65.50,23),
-> (2,"SOPAN","DSC",54.40,22),
-> (3,"SAURABH","DESD",86.70,24),
-> (4,"SACHIN","MECH",59.30,27),
-> (5,"SAHIL","DBDA",48.30,23),
-> (6,"AKSHAY","MECH",72.70,22),
-> (7,"ARNAV","DAI",29.40,23);
```

```
Query OK, 7 rows affected (0.01 sec)
Records: 7 Duplicates: 0 Warnings: 0
```

```
mysql> SELECT * FROM STUDENT;
```

roll	name	class	marks	age
1	SOHAN	DAC	65.5	23
2	SOPAN	DSC	54.4	22
3	SAURABH	DESD	86.7	24
4	SACHIN	MECH	59.3	27
5	SAHIL	DBDA	48.3	23
6	AKSHAY	MECH	72.7	22
7	ARNAV	DAI	29.4	23

```
7 rows in set (0.00 sec)
```

Q1 Create new column in table which states that where the student got first class or not.

```
mysql> alter table student
-> ADD FirstClass varchar(10);
Query OK, 0 rows affected (0.02 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> UPDATE Student
-> SET FirstClass = CASE
-> When marks >= 65.00 THEN "YES"
-> ELSE "NO"
-> END;
Query OK, 7 rows affected (0.01 sec)
Rows matched: 7 Changed: 7 Warnings: 0
```

```
mysql> SELECT * FROM STUDENT;
```

roll	name	class	marks	age	FirstClass
1	SOHAN	DAC	65.5	23	YES
2	SOPAN	DSC	54.4	22	NO
3	SAURABH	DESD	86.7	24	YES
4	SACHIN	MECH	59.3	27	NO
5	SAHIL	DBDA	48.3	23	NO
6	AKSHAY	MECH	72.7	22	YES
7	ARNAV	DAI	29.4	23	NO

7 rows in set (0.00 sec)

Q2. Create a new column which states that grade of the students:

- 1) > 75: A+ grade
- 2) > 60: A grade
- 3) > 55: B+ grade
- 4) > 50: B grade
- 5) > 40: C grade
- 6) < 40: D grade

ANS:

```
mysql> ALTER TABLE student
-> ADD COLUMN grade VARCHAR(10);
```

```
mysql> UPDATE student
-> SET grade = CASE
```

```

-> WHEN marks > 75 THEN 'A+'
-> When marks > 60 THEN 'A'
-> When marks > 55 THEN 'B+'
-> When marks > 50 THEN 'B'
-> When marks > 40 THEN 'C'
-> else 'D'
-> END;

```

Query OK, 7 rows affected (0.00 sec)
Rows matched: 7 Changed: 7 Warnings: 0

```
mysql> SELECT * FROM STUDENT;
```

roll	name	class	marks	age	FirstClass	grade
1	SOHAN	DAC	65.5	23	YES	A
2	SOPAN	DSC	54.4	22	NO	B
3	SAURABH	DESD	86.7	24	YES	A+
4	SACHIN	MECH	59.3	27	NO	B+
5	SAHIL	DBDA	48.3	23	NO	C
6	AKSHAY	MECH	72.7	22	YES	A
7	ARNAV	DAI	29.4	23	NO	D

7 rows in set (0.00 sec)

Q.3 Create a procedure to find addition of first 10 natural numbers.

```

mysql> DELIMITER &&
mysql> CREATE PROCEDURE addFirst10NaturalNos(OUT sum INT)
-> BEGIN
-> declare num int ;
-> set num=1;
-> SET sum = 0;
-> myloop: WHILE num <= 10 DO
-> SET sum = sum + num;
-> SET num = num + 1;
-> END WHILE myloop;
->
-> SELECT sum;
-> END;
-> call addFirst10NaturalNos(@ans);
-> &&

```

```

+-----+
| sum |
+-----+
| 55 |
+-----+

```

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

Q4. Create a procedure to enter a parameter and check whether that is even number or odd number or neither of them.

```
mysql> DELIMITER &&
mysql> create procedure EvenOrOdd(in num int, out type varchar(10))
    -> begin
    -> if(num=0) then
    -> set type= 'zero';
    -> elseif (num%2=0) then
    -> set type="Even";
    -> else
    -> set type="Odd";
    -> end if;
    -> select type;
    -> end;
    -> &&
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> call EvenOrOdd(0,@type)
    -> &&
```

```
+-----+
```

```
| type |
```

```
+-----+
```

```
| zero |
```

```
+-----+
```

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

```
mysql> call EvenOrOdd(5,@type)
    -> &&
```

```
+-----+
```

```
| type |
```

```
+-----+
```

```
| Odd  |
```

```
+-----+
```

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)

```
mysql> call EvenOrOdd(4,@type)
```

```

-> &&
+-----+
| type |
+-----+
| Even |
+-----+
1 row in set (0.00 sec)

```

Query OK, 0 rows affected (0.00 sec)

Q5. Write a procedure to pass marks a parameter and find the grade of the student according to marks:

- 1) > 75: A+ grade
- 2) > 60: A grade
- 3) > 55: B+ grade
- 4) > 50: B grade
- 5) > 40: C grade
- 6) < 40: D

```

mysql> delimiter $$
mysql> create procedure grade(in marks int,out grade varchar(5))
-> begin
->     if (marks>75) then
->         set grade = 'A+';
->     elseif (marks>60) then
->         set grade = 'A';
->     elseif (marks>55) then
-> set grade= 'B+';
->     elseif (marks>50) then
->         set grade= 'B';
->     elseif (marks>40) then
->         set grade= 'C';
->     else
->         set grade= 'D';
->     end if;
->     select grade;
->     end;
->     $$

```

Query OK, 0 rows affected (0.01 sec)

```

mysql> call grade(70,@grade);
-> $$

```

```

+-----+
| grade |
+-----+
| A      |

```

+-----+

1 row in set (0.00 sec)

Query OK, 0 rows affected (0.00 sec)