# DATABASE ASSIGNMENT 7

## Date and Time functions :

1. Write a query to display the first day of the month (in datetime format) three months before the current month. Sample current date : 2014-09-03 Expected result : 2014-06-01

```
mysql> select date_sub('2014-09-03', interval 3 month);
+-----------------------------------------+
| date_sub('2014-09-03', interval 3 month) |
+-----------------------------------------+
| 2014-06-03                              |
+-----------------------------------------+
1 row in set (0.03 sec)
```

2. Write a query to display the last day of the month (in datetime format) three months before the current month.

```
mysql> select date_sub(last_day(curdate()), interval 3 month);
+-------------------------------------------------+
| date_sub(last_day(curdate()), interval 3 month) |
+-------------------------------------------------+
| 2023-12-31                                      |
+-------------------------------------------------+
1 row in set (0.00 sec)
```

3. Write a query to get the distinct Mondays from hiredate in emp tables.

```
mysql> select distinct hiredate, dayname(hiredate) from emp where dayname(hiredate)='Thursday';
+------------+--------------------+
| hiredate   | dayname(hiredate) |
+------------+--------------------+
| 1981-04-02 | Thursday          |
| 1982-12-09 | Thursday          |
| 1981-12-03 | Thursday          |
+------------+--------------------+
3 rows in set (0.01 sec)
```

4. Write a query to get the first day of the current year.

```
mysql> select dayname(date_sub(date_sub(curdate(), interval 2 month), interval 22 day));
+-----------------------------------------------------------------------+
| dayname(date_sub(date_sub(curdate(), interval 2 month), interval 22 day)) |
+-----------------------------------------------------------------------+
| Monday                                                                |
+-----------------------------------------------------------------------+
1 row in set (0.00 sec)
```

5. **Write a query to get the last day of the current year.**

```
mysql> select dayname(date_add(date_add(curdate(), interval 9 month),interval 8 day));
+-----------------------------------------------------------------------+
| dayname(date_add(date_add(curdate(), interval 9 month),interval 8 day)) |
+-----------------------------------------------------------------------+
| Tuesday                                                               |
+-----------------------------------------------------------------------+
1 row in set (0.00 sec)
```

6. Write a query to calculate your age in year.

```
mysql> select floor(datediff(curdate(),'1993-11-11')/365);
+-----------------------------------------------+
| floor(datediff(curdate(),'1993-11-11')/365) |
+-----------------------------------------------+
|                                            30 |
+-----------------------------------------------+
1 row in set (0.00 sec)
```

7. **Write a query to get the current date in the following format.**
   Sample date : 04-sep-2014 Output : September 4, 2014

```
mysql> select date_format(curdate(), '%M %d, %Y');
+-------------------------------------+
| date_format(curdate(), '%M %d, %Y') |
+-------------------------------------+
| March 23, 2024                      |
+-------------------------------------+
1 row in set (0.00 sec)
```

8. **Write a query to get the current date in Thursday September 2014 format. (**Thursday September 2014 ).

```
mysql> select date_format(curdate(), '%W %M, %Y');
+-------------------------------------+
| date_format(curdate(), '%W %M, %Y') |
+-------------------------------------+
| Saturday March, 2024                |
+-------------------------------------+
1 row in set (0.00 sec)
```

9. **Write a query to extract the year from the current date.**

```
mysql> select extract(year from curdate());
+------------------------------+
| extract(year from curdate()) |
+------------------------------+
|                         2024 |
+------------------------------+
1 row in set (0.00 sec)
```

10. Write a query to get the first name and hire date from employees table where hire date between '1987-06-01' and '1987-07-30'

```
mysql> select ename,hiredate from emp where hiredate between '1981-09-01' and '1981-12-31';
+--------+------------+
| ename  | hiredate   |
+--------+------------+
| MARTIN | 1981-09-28 |
| KING   | 1981-11-17 |
| TURNER | 1981-09-08 |
| JAMES  | 1981-12-03 |
| FORD   | 1981-12-03 |
+--------+------------+
5 rows in set (0.00 sec)
```

**11.** Write a query to display the current date in the following format. Sample output: Thursday 4th September 2014 00:00:00

```
mysql> select date_format(curdate(), '%W %D %M %Y %T');
+-----------------------------------------+
| date_format(curdate(), '%W %D %M %Y %T') |
+-----------------------------------------+
| Saturday 23rd March 2024 00:00:00       |
+-----------------------------------------+
1 row in set (0.00 sec)
```

**12.** **Write a query to display the current date in the following format.** Sample output: 05/09/2014

```
mysql> select date_format(curdate(), '%d/%m/%Y');
+-----------------------------------+
| date_format(curdate(), '%d/%m/%Y') |
+-----------------------------------+
| 23/03/2024                        |
+-----------------------------------+
1 row in set (0.00 sec)
```

**13.** **Write a query to display the current date in the following format.** Sample output: 12:00 AM Sep 5, 2014

```
mysql> select date_format(curdate(), '%h:%i %p %b %d, %Y');
+-----------------------------------------------+
| date_format(curdate(), '%h:%i %p %b %d, %Y') |
+-----------------------------------------------+
| 12:00 AM Mar 23, 2024                         |
+-----------------------------------------------+
1 row in set (0.00 sec)
```

**14.** Write a query to get the employees who joined in the month of June.

```
+-------+----------------------+
| ename | monthname(hiredate) |
+-------+----------------------+
| SMITH | December             |
| SCOTT | December             |
| JAMES | December             |
| FORD  | December             |
+-------+----------------------+
4 rows in set (0.00 sec)
```

**15.** Write a query to get the years in which more than 10 employees joined.

```
mysql> select year(hiredate) from emp group by year(hiredate) having count(hiredate)>=10;
+----------------+
| year(hiredate) |
+----------------+
|           1981 |
+----------------+
1 row in set (0.03 sec)

mysql> select date_format(hiredate, '%Y') from emp group by date_format(hiredate, '%Y') having count(hiredate)>=10;
+-----------------------------+
| date_format(hiredate, '%Y') |
+-----------------------------+
| 1981                        |
+-----------------------------+
1 row in set (0.00 sec)
```

**16. Write a query to get first name of employees who joined in 1987.**

```
mysql> select ename,hiredate from emp where hiredate between '1981-01-01' and '1981-12-31' order by ename limit 1;
+-------+------------+
| ename | hiredate   |
+-------+------------+
| ALLEN | 1981-02-20 |
+-------+------------+
1 row in set (0.03 sec)
```

**17.** Write a query to get employees whose experience is more than 5 years.

```
mysql> select empno,ename,floor( datediff('1987-12-31',hiredate)/365) expirence from emp having expirence >5;
+-------+--------+-----------+
| empno | ename  | expirence |
+-------+--------+-----------+
|  7369 | SMITH  |         7 |
|  7499 | ALLEN  |         6 |
|  7521 | WARD   |         6 |
|  7566 | JONES  |         6 |
|  7654 | MARTIN |         6 |
|  7698 | BLAKE  |         6 |
|  7782 | CLARK  |         6 |
|  7839 | KING   |         6 |
|  7844 | TURNER |         6 |
|  7900 | JAMES  |         6 |
|  7902 | FORD   |         6 |
+-------+--------+-----------+
11 rows in set (0.00 sec)

mysql> select empno,ename,floor(datediff('1987-12-31',hiredate)/365) expirence from emp where  floor(datediff('1987-12-31',hiredate)/365)>5;
+-------+--------+-----------+
| empno | ename  | expirence |
+-------+--------+-----------+
|  7369 | SMITH  |         7 |
|  7499 | ALLEN  |         6 |
|  7521 | WARD   |         6 |
|  7566 | JONES  |         6 |
|  7654 | MARTIN |         6 |
|  7698 | BLAKE  |         6 |
|  7782 | CLARK  |         6 |
|  7839 | KING   |         6 |
|  7844 | TURNER |         6 |
|  7900 | JAMES  |         6 |
|  7902 | FORD   |         6 |
+-------+--------+-----------+
11 rows in set (0.00 sec)
```

**18.** Write a query to get employee ID, last name, and date of first salary of the employees.

```
mysql> select empno,ename,hiredate, date_add(hiredate, interval 1 month) payDate from emp;
+-------+--------+------------+------------+
| empno | ename  | hiredate   | payDate    |
+-------+--------+------------+------------+
|  7369 | SMITH  | 1980-12-17 | 1981-01-17 |
|  7499 | ALLEN  | 1981-02-20 | 1981-03-20 |
|  7521 | WARD   | 1981-02-22 | 1981-03-22 |
|  7566 | JONES  | 1981-04-02 | 1981-05-02 |
|  7654 | MARTIN | 1981-09-28 | 1981-10-28 |
|  7698 | BLAKE  | 1981-05-01 | 1981-06-01 |
|  7782 | CLARK  | 1981-06-09 | 1981-07-09 |
|  7788 | SCOTT  | 1982-12-09 | 1983-01-09 |
|  7839 | KING   | 1981-11-17 | 1981-12-17 |
|  7844 | TURNER | 1981-09-08 | 1981-10-08 |
|  7876 | ADAMS  | 1983-01-12 | 1983-02-12 |
|  7900 | JAMES  | 1981-12-03 | 1982-01-03 |
|  7902 | FORD   | 1981-12-03 | 1982-01-03 |
|  7934 | MILLER | 1982-01-23 | 1982-02-23 |
+-------+--------+------------+------------+
14 rows in set (0.00 sec)
```

**19.** Write a query to get first name, hire date and experience of the employees.
Sample table: employees

```
mysql> select empno,ename,hiredate,floor( datediff('1987-12-31',hiredate)/365) expirence from emp ;
+-------+--------+------------+-----------+
| empno | ename  | hiredate   | expirence |
+-------+--------+------------+-----------+
|  7369 | SMITH  | 1980-12-17 |         7 |
|  7499 | ALLEN  | 1981-02-20 |         6 |
|  7521 | WARD   | 1981-02-22 |         6 |
|  7566 | JONES  | 1981-04-02 |         6 |
|  7654 | MARTIN | 1981-09-28 |         6 |
|  7698 | BLAKE  | 1981-05-01 |         6 |
|  7782 | CLARK  | 1981-06-09 |         6 |
|  7788 | SCOTT  | 1982-12-09 |         5 |
|  7839 | KING   | 1981-11-17 |         6 |
|  7844 | TURNER | 1981-09-08 |         6 |
|  7876 | ADAMS  | 1983-01-12 |         4 |
|  7900 | JAMES  | 1981-12-03 |         6 |
|  7902 | FORD   | 1981-12-03 |         6 |
|  7934 | MILLER | 1982-01-23 |         5 |
+-------+--------+------------+-----------+
14 rows in set (0.00 sec)
```

**20.** Write a query to get the department ID, year, and number of employees joined.

```
mysql> select empno, year(hiredate), count(*) from emp group by empno;
+-------+----------------+----------+
| empno | year(hiredate) | count(*) |
+-------+----------------+----------+
|  7369 |           1980 |        1 |
|  7499 |           1981 |        1 |
|  7521 |           1981 |        1 |
|  7566 |           1981 |        1 |
|  7654 |           1981 |        1 |
|  7698 |           1981 |        1 |
|  7782 |           1981 |        1 |
|  7788 |           1982 |        1 |
|  7839 |           1981 |        1 |
|  7844 |           1981 |        1 |
|  7876 |           1983 |        1 |
|  7900 |           1981 |        1 |
|  7902 |           1981 |        1 |
|  7934 |           1982 |        1 |
+-------+----------------+----------+
14 rows in set (0.00 sec)
```