**MySQL with python**

**Ref python programs: mysql\_connection.py--**MYSQL connection using python

**tables\_query\_from\_schema.py--**Creating tables and query in mysql.

**Below are the tables and table contents in mysql which are created from schema:**

**mysql> desc employees;**

+------------+---------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+------------+---------------+------+-----+---------+-------+

| emp\_no | int(11) | NO | PRI | 0 | |

| birth\_date | date | YES | | NULL | |

| first\_name | varchar(14) | YES | | NULL | |

| last\_name | varchar(16) | YES | | NULL | |

| gender | enum('M','F') | YES | | NULL | |

| hire\_date | date | YES | | NULL | |

+------------+---------------+------+-----+---------+-------+

6 rows in set (0.06 sec)

**mysql> desc departments;**

+-----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+-------------+------+-----+---------+-------+

| dept\_no | char(4) | NO | PRI | | |

| dept\_name | varchar(40) | YES | | NULL | |

+-----------+-------------+------+-----+---------+-------+

2 rows in set (0.03 sec)

**mysql> desc titles;**

ERROR 6 (HY000): Error on delete of 'C:\Windows\TEMP\#sql748\_30\_6.MYI' (Errcode: 13)

mysql> desc titles;

+-----------+-------------+------+-----+------------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+-------------+------+-----+------------+-------+

| emp\_no | int(11) | YES | MUL | NULL | |

| title | varchar(50) | NO | PRI | | |

| from\_date | date | NO | PRI | 0000-00-00 | |

| to\_date | date | YES | | NULL | |

+-----------+-------------+------+-----+------------+-------+

4 rows in set (0.01 sec)

**mysql> desc dept\_manager;**

ERROR 1036 (HY000): Table 'C:\Windows\TEMP\#sql748\_30\_8' is read only

mysql> desc dept\_manager;

+-----------+---------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+---------+------+-----+---------+-------+

| emp\_no | int(11) | YES | MUL | NULL | |

| dept\_no | char(4) | YES | MUL | NULL | |

| from\_date | date | YES | | NULL | |

| to\_date | date | YES | | NULL | |

+-----------+---------+------+-----+---------+-------+

**mysql> desc dept\_emp;**

+-----------+---------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+---------+------+-----+---------+-------+

| emp\_no | int(11) | YES | MUL | NULL | |

| dept\_no | char(4) | YES | MUL | NULL | |

| from\_date | date | YES | | NULL | |

| to\_date | date | YES | | NULL | |

+-----------+---------+------+-----+---------+-------+

4 rows in set (0.01 sec)

**mysql> desc salaries;**

+-----------+---------+------+-----+------------+-------+

| Field | Type | Null | Key | Default | Extra |

+-----------+---------+------+-----+------------+-------+

| emp\_no | int(11) | YES | MUL | NULL | |

| salary | int(11) | YES | | NULL | |

| from\_date | date | NO | PRI | 0000-00-00 | |

| to\_date | date | YES | | NULL | |

+-----------+---------+------+-----+------------+-------+

4 rows in set (0.07 sec)

**table contents:**

**mysql> select \* from employees;**

+--------+------------+------------+-----------+--------+------------+

| emp\_no | birth\_date | first\_name | last\_name | gender | hire\_date |

+--------+------------+------------+-----------+--------+------------+

| 101 | 1991-05-12 | navya | sree | M | 2017-08-12 |

| 102 | 1990-01-12 | sree | sara | F | 2016-07-12 |

| 103 | 1993-08-02 | ravi | shankar | M | 2017-09-01 |

| 104 | 1991-06-26 | arun | deep | M | 2012-04-25 |

| 105 | 1988-05-25 | siva | deepa | F | 2013-04-25 |

| 106 | 1992-04-21 | sai | krupa | F | 2015-05-25 |

| 107 | 1986-04-21 | naveen | kumar | M | 2011-06-01 |

| 108 | 1993-04-21 | sravani | begum | F | 2016-06-07 |

| 109 | 1992-08-18 | swetha | kumari | F | 2017-06-17 |

| 110 | 1990-07-19 | raman | choudari | M | 2015-07-15 |

+--------+------------+------------+-----------+--------+------------+

10 rows in set (0.00 sec)

**mysql> select \* from titles**

--------+------------------+------------+------------+

emp\_no | title | from\_date | to\_date |

--------+------------------+------------+------------+

107 | test\_manager | 2011-06-01 | 2018-09-30 |

104 | dev manager | 2012-04-25 | 2018-09-30 |

105 | senior tester | 2013-04-25 | 2018-09-30 |

106 | senior developer | 2015-05-25 | 2018-09-30 |

110 | dev\_lead | 2015-07-15 | 2018-09-30 |

108 | developer | 2016-06-07 | 2018-09-30 |

102 | Developer | 2016-07-12 | 2018-08-12 |

109 | sales\_admin | 2017-06-17 | 2018-09-30 |

101 | Tester | 2017-08-12 | 2018-07-01 |

103 | Administrater | 2017-09-01 | 2018-06-01 |

--------+------------------+------------+------------+

10 rows in set (0.00 sec)

**mysql> select \* from salaries**

-> ;

+--------+--------+------------+------------+

| emp\_no | salary | from\_date | to\_date |

+--------+--------+------------+------------+

| 107 | 100000 | 2011-06-01 | 2018-09-30 |

| 104 | 100000 | 2012-04-25 | 2018-09-30 |

| 105 | 60000 | 2013-04-25 | 2018-09-30 |

| 106 | 70000 | 2015-05-25 | 2018-09-30 |

| 110 | 80000 | 2015-07-15 | 2018-09-30 |

| 108 | 40000 | 2016-06-07 | 2018-09-30 |

| 102 | 40000 | 2016-07-12 | 2018-08-12 |

| 109 | 35000 | 2017-06-17 | 2018-09-30 |

| 101 | 35000 | 2017-08-12 | 2018-07-01 |

| 103 | 30000 | 2017-09-01 | 2018-06-01 |

+--------+--------+------------+------------+

10 rows in set (0.00 sec)

**mysql> select \* from departments;**

+---------+--------------+

| dept\_no | dept\_name |

+---------+--------------+

| 1111 | Testing |

| 1112 | Developement |

| 1113 | Admin |

+---------+--------------+

3 rows in set (0.00 sec)

**mysql> select \* from dept\_emp**

| emp\_no | dept\_no | from\_date | to\_date |

+--------+---------+------------+------------+

| 102 | 1112 | 2017-09-01 | 2018-06-01 |

| 101 | 1111 | 2017-09-01 | 2018-06-01 |

| 103 | 1113 | 2017-09-01 | 2018-06-01 |

| 104 | 1112 | 2012-04-25 | 2018-09-30 |

| 105 | 1111 | 2013-04-25 | 2018-09-30 |

| 106 | 1112 | 2015-05-25 | 2018-09-30 |

| 107 | 1111 | 2011-06-01 | 2018-09-30 |

| 108 | 1112 | 2016-06-07 | 2018-09-30 |

| 109 | 1113 | 2017-06-17 | 2018-09-30 |

| 110 | 1112 | 2015-07-15 | 2018-09-30 |

**Query:**

mysql> select DISTINCT e.last\_name,t.title,e.gender,e.hire\_date,d.dept\_name,concat(e.first\_name, ' ',e.last\_name) as dept\_manager\_name,t.title as manager\_title from employees e,departments d,dept\_manager dm,dept\_emp ed,titles t where e.emp\_no=t.emp\_no AND e.emp\_no=dm.emp\_no AND d.dept\_no=dm.dept\_no AND d.dept\_no=ed.dept\_no;

+-----------+--------------+--------+------------+--------------+-------------------+---------------+

| last\_name | title | gender | hire\_date | dept\_name | dept\_manager\_name | manager\_title |

+-----------+--------------+--------+------------+--------------+-------------------+---------------+

| kumar | test\_manager | M | 2011-06-01 | Testing | naveen kumar | test\_manager |

| deep | dev manager | M | 2012-04-25 | Developement | arun deep | dev manager |

+-----------+--------------+--------+------------+--------------+-------------------+---------------+

2 rows in set (0.06 sec)