1)Write a query to display the owner name and the length of the owner's name of the buildings.Display the records in ascending order based on owner name. Give an alias as name\_length to the length of the owner names.

select \* from building;

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

| id | owner\_name | address | building\_type\_id | contact\_number | email\_address |

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

| 1 | suresh | salem | 1230 | 9788564880 | srs@gmail.com |

| 2 | ramesh | chennai | 3456 | 9788574880 | rs@gmail.com |

| 3 | siva | theni | 1230 | 9588564880 | ss@gmail.com |

| 4 | Nicholas | chennai | 3456 | 7658880909 | nicholas@gmail.com |

| 5 | chan | madurai | 1230 | 7986543210 | null |

| 6 | sri | chennai | 1230 | 7547464530 | null |

| 7 | Murali | chennai | 1230 | 977464530 | murali@gmail.com |

| 8 | Manoj | chennai | 3456 | 945554530 | manoj@gmail.com |

| 9 | Mukund | hyd | 3456 | 8845362330 | mukund@gmail.com |

| 10 | Mano | chennai | 3456 | 945523530 | mano@gmail.com |

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

select owner\_name,length(owner\_name) as name\_length from building order by owner\_name asc;

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

| owner\_name | name\_length |

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

| chan | 4 |

| Mano | 4 |

| Manoj | 5 |

| Mukund | 6 |

| Murali | 6 |

| Nicholas | 8 |

| ramesh | 6 |

| siva | 4 |

| sri | 3 |

| suresh | 6 |

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

2)Write a query to display all the **owner\_name** and the concatenated **contact\_number** and **email**  with**hyphen(-)**seperated . Display the records in descending order based on **owner\_name** .Give an alias name as **contact\_details**.

select \* from building;

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

| id | owner\_name | address | building\_type\_id | contact\_number | email\_address |

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

| 1 | suresh | salem | 1230 | 9788564880 | srs@gmail.com |

| 2 | ramesh | chennai | 3456 | 9788574880 | rs@gmail.com |

| 3 | siva | theni | 1230 | 9588564880 | ss@gmail.com |

| 4 | Nicholas | chennai | 3456 | 7658880909 | nicholas@gmail.com |

| 5 | chan | madurai | 1230 | 7986543210 | null |

| 6 | sri | chennai | 1230 | 7547464530 | null |

| 7 | Murali | chennai | 1230 | 977464530 | murali@gmail.com |

| 8 | Manoj | chennai | 3456 | 945554530 | manoj@gmail.com |

| 9 | Mukund | hyd | 3456 | 8845362330 | mukund@gmail.com |

| 10 | Mano | chennai | 3456 | 945523530 | mano@gmail.com |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

select owner\_name,concat(contact\_number,'-', email\_address) as contact\_details from building order by owner\_name desc;

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

| owner\_name | contact\_details |

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

| suresh | 9788564880-srs@gmail.com |

| sri | 7547464530-null |

| siva | 9588564880-ss@gmail.com |

| ramesh | 9788574880-rs@gmail.com |

| Nicholas | 7658880909-nicholas@gmail.com |

| Murali | 977464530-murali@gmail.com |

| Mukund | 8845362330-mukund@gmail.com |

| Manoj | 945554530-manoj@gmail.com |

| Mano | 945523530-mano@gmail.com |

| chan | 7986543210-null |

|  |  |
| --- | --- |
|  |  |

4)Write a query to display the first 3 characters of every meter\_number.Give an alias name for the meter number as 'meter\_code'.Display the records sorted by meter\_code in descending order.

select \* from meter;

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

| id | meter\_number | building\_id |

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

| 1 | 45679 | 1230 |

| 2 | 98456 | 1230 |

| 3 | 65456 | 3456 |

| 4 | 42106 | 1230 |

|  |  |  |
| --- | --- | --- |
|  |  |  |

select substr(meter\_number,1,3) as meter\_code from meter order by meter\_code desc;

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

| meter\_code |

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

| 984 |

| 654 |

| 456 |

| 421 |

|  |
| --- |
|  |
|  |

5)Write a query to display the first 3 characters of the owner names and the contact number of all buildings in ascending order based on the owner name of the building. Give an alias to the first 3 characters as 'name\_code'.

select \* from building;

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

| id | owner\_name | address | building\_type\_id | contact\_number | email\_address |

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

| 1 | suresh | salem | 1230 | 9788564880 | srs@gmail.com |

| 2 | ramesh | chennai | 3456 | 9788574880 | rs@gmail.com |

| 3 | siva | theni | 1230 | 9588564880 | ss@gmail.com |

| 4 | Nicholas | chennai | 3456 | 7658880909 | nicholas@gmail.com |

| 5 | chan | madurai | 1230 | 7986543210 | null |

| 6 | sri | chennai | 1230 | 7547464530 | null |

| 7 | Murali | chennai | 1230 | 977464530 | murali@gmail.com |

| 8 | Manoj | chennai | 3456 | 945554530 | manoj@gmail.com |

| 9 | Mukund | hyd | 3456 | 8845362330 | mukund@gmail.com |

| 10 | Mano | chennai | 3456 | 945523530 | mano@gmail.com |

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

select left(owner\_name,3) as name\_code ,contact\_number from building order by owner\_name asc;

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

| name\_code | contact\_number |

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

| cha | 7986543210 |

| Man | 945523530 |

| Man | 945554530 |

| Muk | 8845362330 |

| Mur | 977464530 |

| Nic | 7658880909 |

| ram | 9788574880 |

| siv | 9588564880 |

| sri | 7547464530 |

| sur | 9788564880 |

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

6)Write a query to display all the details of the buildings whose owner name contains 'di' in it. Display the records sorted in ascending order based on the owner name of the building.

select \* from building;

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

| id | owner\_name | address | building\_type\_id | contact\_number | email\_address |

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

| 1 | suresh | salem | 1230 | 9788564880 | srs@gmail.com |

| 2 | ramesh | chennai | 3456 | 9788574880 | rs@gmail.com |

| 3 | siva | theni | 1230 | 9588564880 | ss@gmail.com |

| 4 | Nicholas | chennai | 3456 | 7658880909 | nicholas@gmail.com |

| 5 | chan | madurai | 1230 | 7986543210 | null |

| 6 | sri | chennai | 1230 | 7547464530 | null |

| 7 | Murali | chennai | 1230 | 977464530 | murali@gmail.com |

| 8 | Manoj | chennai | 3456 | 945554530 | manoj@gmail.com |

| 9 | Mukund | hyd | 3456 | 8845362330 | mukund@gmail.com |

| 10 | Mano | chennai | 3456 | 945523530 | mano@gmail.com |

| 11 | dinda | hyd | 1230 | 9788591389 | din@gmail.com |

| 12 | dinesh | kochi | 1230 | 9788591349 | dinesh@gmail.com |

| 13 | divya | kovai | 1230 | 9988591349 | divya@gmail.com |

| 14 | pandi | kovai | 3456 | 8888591349 | pandi@gmail.com |

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

select \* from building where owner\_name like '%di%' order by owner\_name asc;

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

| id | owner\_name | address | building\_type\_id | contact\_number | email\_address |

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

| 11 | dinda | hyd | 1230 | 9788591389 | din@gmail.com |

| 12 | dinesh | kochi | 1230 | 9788591349 | dinesh@gmail.com |

| 13 | divya | kovai | 1230 | 9988591349 | divya@gmail.com |

| 14 | pandi | kovai | 3456 | 8888591349 | pandi@gmail.com |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

8)Write a query to display the total fine amounts which charged  between '2017-10-01' and '2017-11-01'.Give an alias name for fine amount as 'total\_fine'.

select \* from bill;

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

| id | meter\_id | month | year | due\_date | total\_units | payable\_amount | is\_played | payment\_date | fine\_amount |

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

| 1 | 1230 | 2 | 2016 | 2016-02-12 | 200 | 100 | 50 | 2016-02-23 | 70 |

| 2 | 1230 | 3 | 2016 | 2016-02-02 | 300 | 200 | 40 | 2016-03-13 | 60 |

| 3 | 3456 | 7 | 2016 | 2016-06-12 | 400 | 300 | 70 | 2016-07-12 | 40 |

| 4 | 3456 | 6 | 2017 | 2017-06-12 | 10000 | 700 | 75 | 2017-06-22 | 100 |

| 5 | 3456 | 8 | 2017 | 2017-08-12 | 15000 | 800 | 85 | 2017-08-23 | 200 |

| 6 | 3456 | 12 | 2017 | 2017-12-12 | 25000 | 900 | 95 | 2017-12-13 | 300 |

| 7 | 1230 | 12 | 2017 | 2017-10-01 | 25000 | 900 | 95 | 2017-12-13 | 400 |

| 8 | 1230 | 11 | 2017 | 2017-10-01 | 23000 | 1000 | 65 | 2017-11-13 | 500 |

| 9 | 3456 | 10 | 2017 | 2017-10-01 | 33000 | 1100 | 45 | 2017-10-11 | 600 |

| 10 | 1230 | 2 | 2018 | 2018-12-13 | 44000 | 15000 | 55 | 2018-12-15 | 50 |

| 11 | 3456 | 1 | 2019 | 2019-02-13 | 45000 | 17000 | 45 | 2019-03-15 | 300 |

| 12 | 3456 | 6 | 2019 | 2019-05-13 | 75000 | 25000 | 95 | 2019-06-25 | 230 |

| 13 | 3456 | 6 | 2018 | 2018-05-13 | 85000 | 23000 | 94 | 2018-06-25 | 210 |

| 14 | 1230 | 5 | 2018 | 2018-05-13 | 80000 | 24000 | 44 | 2018-05-25 | 130 |

| 15 | 1230 | 9 | 2017 | 2017-10-01 | 3000 | 3400 | 60 | 2017-09-28 | NULL |

| 16 | 1230 | 9 | 2017 | 2017-10-01 | 3100 | 3500 | 69 | 2017-09-20 | NULL |

| 17 | 3456 | 9 | 2017 | 2017-10-01 | 2800 | 2200 | 60 | 2017-09-18 | NULL |

select sum(fine\_amount) as total\_fine from bill where payment\_date between '2017-10-01' and '2017-12-13';

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

| total\_fine |

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

| 1800 |

|  |
| --- |
|  |

10)Write a query to display the due date and  payable amount  of all the payment dates that are all not fall in between '**2017-09-10**' to '**2017-10-10**'.

select \* from bill;

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

| id | meter\_id | month | year | due\_date | total\_units | payable\_amount | is\_played | payment\_date | fine\_amount |

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

| 1 | 1230 | 2 | 2016 | 2016-02-12 | 200 | 100 | 50 | 2016-02-23 | 70 |

| 2 | 1230 | 3 | 2016 | 2016-02-02 | 300 | 200 | 40 | 2016-03-13 | 60 |

| 3 | 3456 | 7 | 2016 | 2016-06-12 | 400 | 300 | 70 | 2016-07-12 | 40 |

| 4 | 3456 | 6 | 2017 | 2017-06-12 | 10000 | 700 | 75 | 2017-06-22 | 100 |

| 5 | 3456 | 8 | 2017 | 2017-08-12 | 15000 | 800 | 85 | 2017-08-23 | 200 |

| 6 | 3456 | 12 | 2017 | 2017-12-12 | 25000 | 900 | 95 | 2017-12-13 | 300 |

| 7 | 1230 | 12 | 2017 | 2017-10-01 | 25000 | 900 | 95 | 2017-12-13 | 400 |

| 8 | 1230 | 11 | 2017 | 2017-10-01 | 23000 | 1000 | 65 | 2017-11-13 | 500 |

| 9 | 3456 | 10 | 2017 | 2017-10-01 | 33000 | 1100 | 45 | 2017-10-11 | 600 |

| 10 | 1230 | 2 | 2018 | 2018-12-13 | 44000 | 15000 | 55 | 2018-12-15 | 50 |

| 11 | 3456 | 1 | 2019 | 2019-02-13 | 45000 | 17000 | 45 | 2019-03-15 | 300 |

| 12 | 3456 | 6 | 2019 | 2019-05-13 | 75000 | 25000 | 95 | 2019-06-25 | 230 |

| 13 | 3456 | 6 | 2018 | 2018-05-13 | 85000 | 23000 | 94 | 2018-06-25 | 210 |

| 14 | 1230 | 5 | 2018 | 2018-05-13 | 80000 | 24000 | 44 | 2018-05-25 | 130 |

| 15 | 1230 | 9 | 2017 | 2017-10-01 | 3000 | 3400 | 60 | 2017-09-28 | NULL |

| 16 | 1230 | 9 | 2017 | 2017-10-01 | 3100 | 3500 | 69 | 2017-09-20 | NULL |

| 17 | 3456 | 9 | 2017 | 2017-10-01 | 2800 | 2200 | 60 | 2017-09-18 | NULL |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |

select due\_date,payable\_amount from bill where payment\_date not between '2017-08-23' and '2017-10-11';

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

| due\_date | payable\_amount |

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

| 2016-02-12 | 100 |

| 2016-02-02 | 200 |

| 2016-06-12 | 300 |

| 2017-06-12 | 700 |

| 2017-12-12 | 900 |

| 2017-10-01 | 900 |

| 2017-10-01 | 1000 |

| 2018-12-13 | 15000 |

| 2019-02-13 | 17000 |

| 2019-05-13 | 25000 |

| 2018-05-13 | 23000 |

| 2018-05-13 | 24000 |

|  |  |
| --- | --- |
|  |  |

Subqueries

1)Write a query to display all the bills with **meter** details. Display the records in ascending order based on **payable amount**.

selectm.id,m.meter\_number,b.month,b.year,b.due\_date,b.total\_units,b.payable\_amount,b.is\_played,b.payment\_date,b.fine\_amount from meter m join bill b on m.building\_id=b.meter\_id;

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

| id | meter\_number | month | year | due\_date | total\_units | payable\_amount | is\_played | payment\_date | fine\_amount |

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

| 1 | 45679 | 2 | 2016 | 2016-02-12 | 200 | 100 | 50 | 2016-02-23 | 70 |

| 1 | 45679 | 3 | 2016 | 2016-02-02 | 300 | 200 | 40 | 2016-03-13 | 60 |

| 2 | 98456 | 2 | 2016 | 2016-02-12 | 200 | 100 | 50 | 2016-02-23 | 70 |

| 2 | 98456 | 3 | 2016 | 2016-02-02 | 300 | 200 | 40 | 2016-03-13 | 60 |

| 3 | 65456 | 7 | 2016 | 2016-06-12 | 400 | 300 | 70 | 2016-07-12 | 40 |

| 3 | 65456 | 6 | 2017 | 2017-06-12 | 10000 | 700 | 75 | 2017-06-22 | 100 |

| 4 | 42106 | 2 | 2016 | 2016-02-12 | 200 | 100 | 50 | 2016-02-23 | 70 |

| 4 | 42106 | 3 | 2016 | 2016-02-02 | 300 | 200 | 40 | 2016-03-13 | 60 |

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

Selectm.id,m.meter\_number,b.month,b.year,b.due\_date,b.total\_units,b.payable\_amount,b.is\_played,b.payment\_date,b.fine\_amount from meter m join bill b on m.building\_id=b.meter\_id order by payable\_amount asc;

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

| id | meter\_number | month | year | due\_date | total\_units | payable\_amount | is\_played | payment\_date | fine\_amount |

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

| 1 | 45679 | 2 | 2016 | 2016-02-12 | 200 | 100 | 50 | 2016-02-23 | 70 |

| 2 | 98456 | 2 | 2016 | 2016-02-12 | 200 | 100 | 50 | 2016-02-23 | 70 |

| 4 | 42106 | 2 | 2016 | 2016-02-12 | 200 | 100 | 50 | 2016-02-23 | 70 |

| 1 | 45679 | 3 | 2016 | 2016-02-02 | 300 | 200 | 40 | 2016-03-13 | 60 |

| 2 | 98456 | 3 | 2016 | 2016-02-02 | 300 | 200 | 40 | 2016-03-13 | 60 |

| 4 | 42106 | 3 | 2016 | 2016-02-02 | 300 | 200 | 40 | 2016-03-13 | 60 |

| 3 | 65456 | 7 | 2016 | 2016-06-12 | 400 | 300 | 70 | 2016-07-12 | 40 |

| 3 | 65456 | 6 | 2017 | 2017-06-12 | 10000 | 700 | 75 | 2017-06-22 | 100 |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |

2)Write a query to display the meter number,owner name,address and contact number of all the buildings. Display the records in ascending order based on owner name then by meter\_number

select m.meter\_number,b.owner\_name,b.address,b.contact\_number from meter m join building b on m.building\_id=b.building\_type\_id order by owner\_name asc;

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

| meter\_number | owner\_name | address | contact\_number |

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

| 45679 | chan | madurai | 7986543210 |

| 98456 | chan | madurai | 7986543210 |

| 42106 | chan | madurai | 7986543210 |

| 45679 | dinda | hyd | 9788591389 |

| 98456 | dinda | hyd | 9788591389 |

| 42106 | dinda | hyd | 9788591389 |

| 45679 | dinesh | kochi | 9788591349 |

| 98456 | dinesh | kochi | 9788591349 |

| 42106 | dinesh | kochi | 9788591349 |

| 45679 | divya | kovai | 9988591349 |

| 98456 | divya | kovai | 9988591349 |

| 42106 | divya | kovai | 9988591349 |

| 65456 | Mano | chennai | 945523530 |

| 65456 | Manoj | chennai | 945554530 |

| 65456 | Mukund | hyd | 8845362330 |

| 45679 | Murali | chennai | 977464530 |

| 98456 | Murali | chennai | 977464530 |

| 42106 | Murali | chennai | 977464530 |

| 65456 | Nicholas | chennai | 7658880909 |

| 65456 | pandi | kovai | 8888591349 |

| 65456 | ramesh | chennai | 9788574880 |

| 45679 | siva | theni | 9588564880 |

| 98456 | siva | theni | 9588564880 |

| 42106 | siva | theni | 9588564880 |

| 45679 | sri | chennai | 7547464530 |

| 98456 | sri | chennai | 7547464530 |

| 42106 | sri | chennai | 7547464530 |

| 45679 | suresh | salem | 9788564880 |

| 98456 | suresh | salem | 9788564880 |

| 42106 | suresh | salem | 9788564880 |

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