

برای جدول persons تعداد ۱۰ رکورد وارد کرده، سپس پرس و جو های (query) زیر را بنویسید :

```
mysql> insert into person(ID, FirstName, LastName, City, Age) values(5, "hosein", "gholami", "khuzestan", 22);
Query OK, 1 row affected (0.17 sec)

mysql> insert into person(ID, FirstName, LastName, City, Age) values(6, "reza", "mohammadi", "mashhad", 15);
Query OK, 1 row affected (0.09 sec)

mysql> insert into person(ID, FirstName, LastName, City, Age) values(7, "ashkan", "alavi", "yazd", 34);
Query OK, 1 row affected (0.07 sec)

mysql> insert into person(ID, FirstName, LastName, City, Age) values(8, "leila", "moradi", "tehran", 43);
Query OK, 1 row affected (0.22 sec)

mysql> insert into person(ID, FirstName, LastName, City, Age) values(9, "hamid", "hemati", "karaj", 32);
Query OK, 1 row affected (0.06 sec)

mysql> insert into person(ID, FirstName, LastName, City, Age) values(10, "hasan", "rohani", "tehran", 32);
Query OK, 1 row affected (0.06 sec)

mysql>
mysql>
mysql>
mysql> select * from person
-> ^C
mysql> select * from person;
+----+-----+-----+-----+-----+
| ID | FirstName | LastName | City | Age |
+----+-----+-----+-----+-----+
| 1 | alireza | ahmadian | shiraz | 15 |
| 2 | reza | hasani | ahvas | 23 |
| 3 | mohammad | safari | siston | 25 |
| 4 | ehsan | karami | tabas | 34 |
| 5 | hosein | gholami | khozestan | 22 |
| 6 | reza | mohammadi | mashhad | 15 |
| 7 | ashkan | alavi | yazd | 34 |
| 8 | leila | moradi | tehran | 43 |
| 9 | hamid | hemati | karaj | 32 |
| 10 | hasan | rohani | tehran | 32 |
+----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql>
```

۱) اشخاصی که اسم کوچک آن ها با حرف ه آغاز شود

```
mysql> select * from person
-> ^C
mysql> select * from person;
+----+-----+-----+-----+-----+
| ID | FirstName | LastName | City | Age |
+----+-----+-----+-----+-----+
| 1 | alireza | ahmadian | shiraz | 15 |
| 2 | reza | hasani | ahvas | 23 |
| 3 | mohammad | safari | siston | 25 |
| 4 | ehsan | karami | tabas | 34 |
| 5 | hosein | gholami | khozestan | 22 |
| 6 | reza | mohammadi | mashhad | 15 |
| 7 | ashkan | alavi | yazd | 34 |
| 8 | leila | moradi | tehran | 43 |
| 9 | hamid | hemati | karaj | 32 |
| 10 | hasan | rohani | tehran | 32 |
+----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql> select * from person where FirstName like 'h%';
+----+-----+-----+-----+-----+
| ID | FirstName | LastName | City | Age |
+----+-----+-----+-----+-----+
| 5 | hosein | gholami | shiraz | 22 |
| 7 | ashkan | alavi | yazd | 34 |
+----+-----+-----+-----+-----+
2 rows in set (0.12 sec)

mysql>
```

۲) اشخاصی که فامیل آن ها با حرف c پایان یابد .

```
MySQL 8.0 Command Line Client
mysql> select * from person
-> ^C
mysql> select * from person;
+----+-----+-----+-----+-----+
| ID | FirstName | LastName | City | Age |
+----+-----+-----+-----+-----+
| 1 | alireza | ahmadian | shiraz | 15 |
| 2 | reza | hasani | ahvas | 23 |
| 3 | mohammad | safari | sistān | 25 |
| 4 | ehsan | karami | tabas | 34 |
| 5 | hosein | gholami | khozestan | 22 |
| 6 | reza | mohammadi | mashhad | 15 |
| 7 | ashkan | alavi | yazd | 34 |
| 8 | leila | moradi | tehran | 43 |
| 9 | hamid | hemati | karaj | 32 |
| 10 | hasan | rohani | tehran | 32 |
+----+-----+-----+-----+-----+
10 rows in set (0.00 sec)

mysql> select * from person where FirstName like 'a%';
+----+-----+-----+-----+-----+
| ID | FirstName | LastName | City | Age |
+----+-----+-----+-----+-----+
| 1 | alireza | ahmadian | shiraz | 15 |
| 7 | ashkan | alavi | yazd | 34 |
+----+-----+-----+-----+-----+
2 rows in set (0.12 sec)

mysql> select * from person where FirstName like 'h%';
+----+-----+-----+-----+-----+
| ID | FirstName | LastName | City | Age |
+----+-----+-----+-----+-----+
| 4 | ehsan | karami | tabas | 34 |
| 5 | hosein | gholami | khozestan | 22 |
| 7 | ashkan | alavi | yazd | 34 |
| 10 | hasan | rohani | tehran | 32 |
+----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> select * from person where FirstName like 'c%';
Empty set (0.00 sec)

mysql>
```

۳) اشخاصی که اسم کوچک یا فامیل آن ها شامل حرف b باشد .

```
MySQL 8.0 Command Line Client
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql> select * from person where FirstName like 'b%' or LastName like 'b%';
Empty set (0.00 sec)

mysql> select * from person where FirstName like '%b%' or LastName like '%b%';
+----+-----+-----+-----+-----+
| ID | FirstName | LastName | City | Age |
+----+-----+-----+-----+-----+
| 1 | alireza | ahmadian | shiraz | 15 |
| 2 | reza | hasani | ahvas | 23 |
| 4 | ehsan | karami | tabas | 34 |
| 5 | hosein | gholami | khozestan | 22 |
| 6 | reza | mohammadi | mashhad | 15 |
| 8 | leila | moradi | tehran | 43 |
| 9 | hamid | hemati | karaj | 32 |
+----+-----+-----+-----+-----+
7 rows in set (0.00 sec)

mysql>
```

(۴) اشخاصی که اسم کوچک و فامیل آن ها شامل حرف m باشد .

A screenshot of a Windows 10 desktop. The primary focus is a black terminal window titled "MySQL 8.0 Command Line Client". Inside the terminal, the user has entered the command `mysql> select * from person where FirstName like '%a%' and LastName like '%a%';`. The terminal displays the results of the query as a table with columns ID, FirstName, LastName, City, and Age. The table contains one row with the values 9, hamid, hemati, karaj, and 32. Below the table, it says "1 row in set (0.00 sec)". The terminal prompt `mysql>` is visible at the bottom. On the right side of the screen, the Windows taskbar is visible, showing icons for the Start menu, Search, Task View, File Explorer, Microsoft Edge, Mail, Photos, and several pinned applications including Chrome, VLC, and a music player. The system tray at the bottom right shows the date and time as 8:41 PM on 2/22/2021.

(۵) اشخاصی که اسم کوچک یا فامیل آن ها شامل حرف b باشد و سن آنها بزرگتر از ۱۸ باشد

```

mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql> select * from person where FirstName like '%e%' or LastName like '%e%' and Age>18
    -> ^C
mysql> select * from person where FirstName like '%e%' or LastName like '%e%' and Age>18;
+----+-----+-----+-----+-----+
| ID | FirstName | LastName | City | Age |
+----+-----+-----+-----+-----+
| 1 | alireza  | ahmadian | shiraz | 15 |
| 2 | reza     | hastani  | ahvas  | 23 |
| 4 | ehsan    | karami   | tabas  | 34 |
| 5 | hosein   | gholami  | khozestan | 22 |
| 6 | reza     | mohammadi | mashhad | 15 |
| 8 | jilla    | moradi   | tehran | 43 |
| 9 | hamid    | hemati   | karaj  | 32 |
+----+-----+-----+-----+-----+
7 rows in set (0.02 sec)

mysql>

```

6) میانگین سن افراد

```
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql> select avg(Age) from person;
+-----+
| avg(Age) |
+-----+
| 27.5000 |
+-----+
1 row in set (0.11 sec)

mysql>
```

7) فردی که کمترین سن را دارد .

```
mysql>
mysql>
mysql>
mysql> select min(Age) as smallestAge from person;
+-----+
| smallestAge |
+-----+
| 15 |
+-----+
1 row in set (0.11 sec)

mysql>
```

۸) فردی که بیشترین سن را دارد .

```
MySQL 8.0 Command Line Client
1 row in set (0.11 sec)

mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql> select max(Age) as LargestAge from person
+-----+
| LargestAge |
+-----+
|         43 |
+-----+
1 row in set (0.00 sec)

mysql>
```

۹) جمع سن همه ی افراد .

```
MySQL 8.0 Command Line Client
1 row in set (0.00 sec)

mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql> select sum(Age) from person;
+-----+
| sum(Age) |
+-----+
|       275 |
+-----+
1 row in set (0.00 sec)

mysql>
```

۱۰) تعداد افرادی که سن آن ها بیشتر از ۱۸ است .

```
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql>
mysql> select count(Age) from person where Age>18;
+-----+
| count(Age) |
+-----+
|          8 |
+-----+
1 row in set (0.01 sec)

mysql>
```

۱۱) پرس و جویی بنویسید که سن و تعداد افراد موجود در آن سن را نشان دهد 2 .

```
mysql>
mysql>
mysql>
mysql>
mysql> select count(ID),Age from person group by Age having count(ID);
+-----+-----+
| count(ID) | Age |
+-----+-----+
|          2 | 15 |
|          1 | 23 |
|          1 | 25 |
|          2 | 34 |
|          1 | 22 |
|          1 | 43 |
|          2 | 32 |
+-----+-----+
7 rows in set (0.22 sec)

mysql>
```

۱۲) پرس و جویی بنویسید که سن و شهر و تعداد افراد موجود در آن سن و شهر را نشان دهد و آنها را بر اساس تعداد افراد مرتب کند.

```
MySQL 8.0 Command Line Client
mysql> select Age ,count(Age),City,count(City) from person group by Age ,City ;
+-----+
| Age | count(Age) | City | count(City) |
+-----+
| 15 | 1 | shiraz | 1 |
| 23 | 1 | ahvas | 1 |
| 25 | 1 | sistan | 1 |
| 34 | 1 | tabas | 1 |
| 22 | 1 | khozestan | 1 |
| 15 | 1 | mashhad | 1 |
| 34 | 1 | yazd | 1 |
| 43 | 1 | tehran | 1 |
| 32 | 1 | karaj | 1 |
| 32 | 1 | tehran | 1 |
+-----+
10 rows in set (0.02 sec)

mysql> select Age ,City,count(City) from person group by Age ,City ;
+-----+
| Age | City | count(City) |
+-----+
| 15 | shiraz | 1 |
| 23 | ahvas | 1 |
| 25 | sistan | 1 |
| 34 | tabas | 1 |
| 22 | khozestan | 1 |
| 15 | mashhad | 1 |
| 34 | yazd | 1 |
| 43 | tehran | 1 |
| 32 | karaj | 1 |
| 32 | tehran | 1 |
+-----+
10 rows in set (0.00 sec)

mysql> select Age ,City,count(City) from person group by Age ,City order by Age desc;
+-----+
| Age | City | count(City) |
+-----+
| 43 | tehran | 1 |
| 34 | tabas | 1 |
| 34 | yazd | 1 |
| 32 | karaj | 1 |
| 32 | tehran | 1 |
| 25 | sistan | 1 |
| 23 | ahvas | 1 |
| 22 | khozestan | 1 |
| 15 | mashhad | 1 |
| 15 | shiraz | 1 |
+-----+
10 rows in set (0.10 sec)

mysql>
```