```
MySQL 8.0 Command Line Client                                    —  □  X

mysql> show tables;
+------------------+
| Tables_in_dblab1 |
+------------------+
| course           |
| enrolled         |
| student          |
+------------------+
3 rows in set (0.01 sec)

mysql> describe student;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| RollNo | char(8)     | NO   | PRI | NULL    |       |
| SName  | varchar(20) | NO   |     | NULL    |       |
| Gender | char(1)     | NO   |     | NULL    |       |
| City   | varchar(20) | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
4 rows in set (0.02 sec)

mysql> describe course;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| CCode  | char(5)     | NO   | PRI | NULL    |       |
| CName  | varchar(20) | NO   |     | NULL    |       |
| Credit | smallint    | NO   |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> describe enrolled;
+--------+---------+------+-----+---------+-------+
| Field  | Type    | Null | Key | Default | Extra |
+--------+---------+------+-----+---------+-------+
| RollNo | char(8) | YES  | MUL | NULL    |       |
| CCode  | char(5) | YES  | MUL | NULL    |       |
| YoE    | int     | NO   |     | NULL    |       |
+--------+---------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                          —    □    X

mysql> show tables;
+------------------+
| Tables_in_dblab1 |
+------------------+
| course           |
| enrolled         |
| student          |
+------------------+
3 rows in set (0.01 sec)

mysql> describe student ;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| RollNo | char(8)     | NO   | PRI | NULL    |       |
| SName  | varchar(20) | NO   |     | NULL    |       |
| Gender | char(1)     | NO   |     | NULL    |       |
| City   | varchar(20) | YES  |     | NULL    |       |
| Email  | varchar(30) | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)

mysql> describe course;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| CCode  | char(5)     | NO   | PRI | NULL    |       |
| CName  | varchar(20) | NO   |     | NULL    |       |
| Credit | smallint    | NO   |     | NULL    |       |
| CType  | varchar(20) | NO   |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
4 rows in set (0.02 sec)

mysql> _
```

```
MySQL 8.0 Command Line Client                                          —  □  ✕

mysql> show tables;
+------------------+
| Tables_in_dblab1 |
+------------------+
| course           |
| enrolled         |
| student          |
+------------------+
3 rows in set (0.00 sec)

mysql> select * from student;
+----------+--------------+--------+------------+---------------------+
| RollNo   | SName        | Gender | City       | Email               |
+----------+--------------+--------+------------+---------------------+
| 1901CS99 | Arun Avasthi | M      | Jaipur     | 1901cs99@gmail.com  |
| 2018EC01 | Srinidhi     | F      | Delhi      | 2018ec01@gmail.com  |
| 2019ME01 | Lahari       | F      | Delhi      | 2019me01@yahoo.com  |
| 2020CS01 | Prasad Ravi  | M      | Hyderbad   | 2020cs01@yahoo.com  |
| 2020CS02 | Meghana      | F      | Vijayawada | 2020cs02@gmail.com  |
| 2020EC02 | Nischal      | M      | Chandigarh | 2020ec02@yahoo.com  |
+----------+--------------+--------+------------+---------------------+
6 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                                    —   □   ×

mysql> show tables;
+------------------+
| Tables_in_dblab1 |
+------------------+
| course           |
| enrolled         |
| student          |
+------------------+
3 rows in set (0.00 sec)

mysql> select * from course;
+-------+-----------+--------+---------------+
| CCode | CName     | Credit | CType         |
+-------+-----------+--------+---------------+
| CS100 | Materials |      1 | Elective      |
| CS201 | DSA       |      2 | Core          |
| CS502 | DSCS      |      5 | Open Elective |
| CS503 | DBMS      |      5 | Core          |
| EC500 | Circuits  |      5 | Core          |
| EC501 | Design    |      5 | Elective      |
| ME300 | AutoCad   |      3 | Elective      |
| ME401 | Machines  |      4 | Core          |
+-------+-----------+--------+---------------+
8 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                          —    □    ×

mysql> show tables;
+------------------+
| Tables_in_dblab1 |
+------------------+
| course           |
| enrolled         |
| student          |
+------------------+
3 rows in set (0.00 sec)

mysql> select * from enrolled;
+----------+-------+------+
| RollNo   | CCode | YoE  |
+----------+-------+------+
| 1901CS99 | CS100 | 1901 |
| 1901CS99 | CS201 | 1901 |
| 1901CS99 | ME300 | 1901 |
| 1901CS99 | EC500 | 1901 |
| 1901CS99 | CS503 | 1901 |
| 2020CS01 | CS100 | 2020 |
| 2020CS01 | CS201 | 2020 |
| 2020CS01 | ME300 | 2020 |
| 2020CS01 | EC500 | 2020 |
| 2019ME01 | CS100 | 2020 |
| 2019ME01 | CS201 | 2020 |
| 2019ME01 | ME300 | 2020 |
| 2019ME01 | ME401 | 2020 |
| 2020CS02 | CS100 | 2021 |
| 2018EC01 | ME300 | 2018 |
| 2020EC02 | EC500 | 2020 |
+----------+-------+------+
16 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client

mysql> select CName from Course where CCode like 'CS%';
+-----------+
| CName     |
+-----------+
| Materials |
| DSA       |
| DSCS      |
| DBMS      |
+-----------+
4 rows in set (0.02 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                    —    □    ✕

mysql> show tables;
+-----------------+
| Tables_in_dblab1 |
+-----------------+
| course          |
| enrolled        |
| student         |
+-----------------+
3 rows in set (0.00 sec)

mysql> describe student;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| RollNo | char(8)     | NO   | PRI | NULL    |       |
| SName  | varchar(20) | NO   |     | NULL    |       |
| Gender | char(1)     | NO   |     | NULL    |       |
| City   | varchar(20) | YES  |     | NULL    |       |
| Email  | varchar(30) | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
5 rows in set (0.01 sec)

mysql> select SName from student where SName like '%a%a%' and Gender='M';
+--------------+
| SName        |
+--------------+
| Arun Avasthi |
| Prasad Ravi  |
+--------------+
2 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client

mysql> select * from student where RollNo not between '2018%' and '2020%';
+----------+--------------+--------+------------+---------------------+
| RollNo   | SName        | Gender | City       | Email               |
+----------+--------------+--------+------------+---------------------+
| 1901CS99 | Arun Avasthi | M      | Jaipur     | 1901cs99@gmail.com  |
| 2020CS01 | Prasad Ravi  | M      | Hyderbad   | 2020cs01@yahoo.com  |
| 2020CS02 | Meghana      | F      | Vijayawada | 2020cs02@gmail.com  |
| 2020EC02 | Nischal      | M      | Chandigarh | 2020ec02@yahoo.com  |
+----------+--------------+--------+------------+---------------------+
4 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                          —   □   ×

mysql> select * from course where Credit=(select min(Credit) from course);
+-------+-----------+--------+----------+
| CCode | CName     | Credit | CType    |
+-------+-----------+--------+----------+
| CS100 | Materials |      1 | Elective |
+-------+-----------+--------+----------+
1 row in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                    —  □  ✕

mysql> select city,count(city) from student group by city;
+------------+-------------+
| city       | count(city) |
+------------+-------------+
| Jaipur     |           1 |
| Delhi      |           2 |
| Hyderbad   |           1 |
| Vijayawada |           1 |
| Chandigarh |           1 |
+------------+-------------+
5 rows in set (0.00 sec)

mysql> _
```

```
MySQL 8.0 Command Line Client                                          —    □    ×

mysql> describe enrolled;
+--------+---------+------+-----+---------+-------+
| Field  | Type    | Null | Key | Default | Extra |
+--------+---------+------+-----+---------+-------+
| RollNo | char(8) | YES  | MUL | NULL    |       |
| CCode  | char(5) | YES  | MUL | NULL    |       |
| YoE    | int     | NO   |     | NULL    |       |
+--------+---------+------+-----+---------+-------+
3 rows in set (0.00 sec)

mysql> select count(CCode) from enrolled where rollno='1901CS99';
+--------------+
| count(CCode) |
+--------------+
|            5 |
+--------------+
1 row in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                    —    □    ✕

mysql> select CName,CCode from course where CCode not in(select CCode from enrolled where yoe=2020);
+--------+-------+
| CName  | CCode |
+--------+-------+
| DSCS   | CS502 |
| DBMS   | CS503 |
| Design | EC501 |
+--------+-------+
3 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                          —   □   ×

mysql> describe course;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| CCode  | char(5)     | NO   | PRI | NULL    |       |
| CName  | varchar(20) | NO   |     | NULL    |       |
| Credit | smallint    | NO   |     | NULL    |       |
| CType  | varchar(20) | NO   |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
4 rows in set (0.00 sec)

mysql> select * from course where CCode like '__5%';
+-------+----------+--------+---------------+
| CCode | CName    | Credit | CType         |
+-------+----------+--------+---------------+
| CS502 | DSCS     |      5 | Open Elective |
| CS503 | DBMS     |      5 | Core          |
| EC500 | Circuits |      5 | Core          |
| EC501 | Design   |      5 | Elective      |
+-------+----------+--------+---------------+
4 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                                    —  □  ✕

mysql> describe student;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| RollNo | char(8)     | NO   | PRI | NULL    |       |
| SName  | varchar(20) | NO   |     | NULL    |       |
| Gender | char(1)     | NO   |     | NULL    |       |
| City   | varchar(20) | YES  |     | NULL    |       |
| Email  | varchar(30) | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)

mysql> select count(rollno) from student where rollno like '%CS%';
+---------------+
| count(rollno) |
+---------------+
|             3 |
+---------------+
1 row in set (0.00 sec)

mysql> _
```

```
MySQL 8.0 Command Line Client                                        —  □  ✕

mysql> select * from student;
+----------+--------------+--------+------------+-----------------------+
| RollNo   | SName        | Gender | City       | Email                 |
+----------+--------------+--------+------------+-----------------------+
| 1901CS99 | Arun Avasthi | M      | Jaipur     | 1901cs99@gmail.com    |
| 2018EC01 | Srinidhi     | F      | Delhi      | 2018ec01@gmail.com    |
| 2019ME01 | Lahari       | F      | Delhi      | 2019me01@yahoo.com    |
| 2020CS01 | Prasad Ravi  | M      | Hyderbad   | 2020cs01@yahoo.com    |
| 2020CS02 | Meghana      | F      | Vijayawada | 2020cs02@gmail.com    |
| 2020EC02 | Nischal      | M      | Chandigarh | 2020ec02@yahoo.com    |
| 2020ME02 | Singh        | M      | Punjab     | 2020ec02@iiitdm.ac.in |
+----------+--------------+--------+------------+-----------------------+
7 rows in set (0.00 sec)

mysql> select * from student where email like '%@gmail.com' or email like '%@yahoo.com';
+----------+--------------+--------+------------+--------------------+
| RollNo   | SName        | Gender | City       | Email              |
+----------+--------------+--------+------------+--------------------+
| 1901CS99 | Arun Avasthi | M      | Jaipur     | 1901cs99@gmail.com |
| 2018EC01 | Srinidhi     | F      | Delhi      | 2018ec01@gmail.com |
| 2019ME01 | Lahari       | F      | Delhi      | 2019me01@yahoo.com |
| 2020CS01 | Prasad Ravi  | M      | Hyderbad   | 2020cs01@yahoo.com |
| 2020CS02 | Meghana      | F      | Vijayawada | 2020cs02@gmail.com |
| 2020EC02 | Nischal      | M      | Chandigarh | 2020ec02@yahoo.com |
+----------+--------------+--------+------------+--------------------+
6 rows in set (0.00 sec)

mysql>
```

```
MySQL 8.0 Command Line Client                                              —   □   ×

mysql> select * from student;
+----------+--------------+---------+------------+----------------------+
| RollNo   | SName        | Gender  | City       | Email                |
+----------+--------------+---------+------------+----------------------+
| 1901CS99 | Arun Avasthi | M       | Jaipur     | 1901cs99@gmail.com   |
| 2018EC01 | Srinidhi     | F       | Delhi      | 2018ec01@gmail.com   |
| 2019ME01 | Lahari       | F       | Delhi      | 2019me01@yahoo.com   |
| 2020CS01 | Prasad Ravi  | M       | Hyderbad   | 2020cs01@yahoo.com   |
| 2020CS02 | Meghana      | F       | Vijayawada | 2020cs02@gmail.com   |
| 2020EC02 | Nischal      | M       | Chandigarh | 2020ec02@yahoo.com   |
| 2020ME02 | Singh        | M       | Punjab     | 2020ec02@iiitdm.ac.in |
+----------+--------------+---------+------------+----------------------+
7 rows in set (0.00 sec)

mysql> select rollno,count(ccode) from enrolled group by rollno having count(ccode)=5 ;
+----------+--------------+
| rollno   | count(ccode) |
+----------+--------------+
| 1901CS99 |            5 |
+----------+--------------+
1 row in set (0.00 sec)

mysql> select rollno,count(ccode) from enrolled group by rollno having count(ccode)>=4 ;
+----------+--------------+
| rollno   | count(ccode) |
+----------+--------------+
| 1901CS99 |            5 |
| 2019ME01 |            4 |
| 2020CS01 |            4 |
+----------+--------------+
3 rows in set (0.00 sec)

mysql>
```