```
1-
CREATE TABLE student (
      student id INT PRIMARY KEY,
      name VARCHAR(50),
  ->
      age INT,
  ->
      course VARCHAR(50),
  ->
      city VARCHAR(25),
  ->
      year INT,
  ->
      percentage INT
  ->
  -> );
Query OK, 0 rows affected (0.93 sec)
mysql> INSERT INTO student (student id, name, age, course, city, year, percentage)
  -> VALUES
  -> (1, 'Akshay Bh', 22, 'Computer Science', 'Wardha', 2023, 90),
 -> (2, 'Shrey', 21, 'Engineering', 'Nagpur', 2022, 85),
  -> (3, 'ABC', 23, 'Business Administration', 'Pune', 2022, 78),
 -> (4, 'XYZ', 20, 'Psychology', 'Mumbai', 2023, 92),
  -> (5, 'David', 22, 'Mathematics', 'Boston', 2022, 88),
 -> (6, 'Frankie', 21, 'English Literature', 'Ahmednagar', 2023, 87),
  -> (7, 'AHDJ', 24, 'Chemistry', 'Denver', 2022, 79),
  -> (8, 'Harshit', 23, 'History', 'Banagalore', 2023, 91);
Query OK, 8 rows affected (0.06 sec)
Records: 8 Duplicates: 0 Warnings: 0
mysql> desc student:
+----+
                | Null | Key | Default | Extra |
| Field | Type
+-----+
               |NO |PRI|NULL |
student id int
l name
        | varchar(50) | YES | | NULL |
               |YES | |NULL | |
       | int
age
| course | varchar(50) | YES | NULL |
       | varchar(25) | YES | NULL |
city
     | int
| year
               |YES | |NULL | |
| percentage | int | YES | NULL |
+----+
7 rows in set (0.01 sec)
mysql> select*from student;
| student id | name | age | course
                                       | city
                                              | year | percentage |
   -----+----+-----+-----+------
     1 | Akshay Bh | 22 | Computer Science
                                         | Wardha | 2023 |
                                                               90 |
```

```
2 | Shrey | 21 | Engineering
                                  | Nagpur | 2022 |
                                                    85 I
     3 | ABC
             | 23 | Business Administration | Pune | 2022 |
                                                       78 |
                                                     92 |
     4 | XYZ
             | 20 | Psychology
                                  | Mumbai
                                          | 2023 |
     5 | David | 22 | Mathematics
                                  | Boston
                                           | 2022 |
                                                     88 |
     6 | Frankie | 21 | English Literature
                                 | Ahmednagar | 2023 |
                                                        87 |
             | 24 | Chemistry
     7 | AHDJ
                                 | Denver
                                          | 2022 |
                                                    79 |
     8 | Harshit | 23 | History
                                | Banagalore | 2023 |
                                                    91 |
   8 rows in set (0.00 sec)
3-
mysql> ALTER TABLE student
 -> CHANGE COLUMN course subject VARCHAR(50);
Query OK, 0 rows affected (0.11 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> desc student;
+----+
              | Null | Key | Default | Extra |
+----+
              |NO |PRI|NULL |
| student id | int
name
        |varchar(50)|YES||NULL|
age
       | int
             | YES | | NULL | |
| subject | varchar(50) | YES | | NULL |
city
      | varchar(25) | YES | | NULL |
| year
    | int
             |YES | |NULL |
| percentage | int | YES | NULL |
+----+
7 rows in set (0.01 sec)
mysgl> select*from student:
| student id | name | age | subject
                                   | city
                                          | year | percentage |
+-----+----+----+-----+-----+
     1 | Akshay Bh | 22 | Computer Science | Wardha | 2023 |
                                                         90 |
     2 | Shrey | 21 | Engineering
                                  | Nagpur | 2022 |
                                                    85 |
                                                       78 |
     3 | ABC
             | 23 | Business Administration | Pune
                                             | 2022 |
             | 20 | Psychology
     4 | XYZ
                                  | Mumbai
                                          | 2023 |
                                                     92 |
     5 | David | 22 | Mathematics
                                 | Boston
                                          | 2022 |
                                                     88 |
     6 | Frankie | 21 | English Literature | Ahmednagar | 2023 |
                                                        87 |
     7 | AHDJ | 24 | Chemistry
                                  | Denver | 2022 |
                                                    79 |
     8 | Harshit | 23 | History
                               | Banagalore | 2023 |
                                                    91 |
    8 rows in set (0.00 sec)
```

```
mysgl> CREATE TABLE bkup student AS
 -> SELECT * FROM student;
Query OK, 8 rows affected (0.34 sec)
Records: 8 Duplicates: 0 Warnings: 0
mysgl> desc bkup student;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
               |NO | |NULL |
student id int
      |varchar(50)|YES| |NULL |
name
age
       | int
             |YES||NULL| | |
| subject | varchar(50) | YES | | NULL |
      | varchar(25) | YES | NULL |
city
      | int
           |YES||NULL|
year
| percentage | int | YES | NULL |
+----+
7 rows in set (0.01 sec)
mysql> select*from bkup student;
+-----+-----
| student id | name | age | subject
                                   | city
                                         | year | percentage |
+-----+
     1 | Akshay Bh | 22 | Computer Science | Wardha | 2023 |
    2 | Shrey | 21 | Engineering
                                 | Nagpur | 2022 |
                                                   85 |
             | 23 | Business Administration | Pune | 2022 |
    3 | ABC
                                                      78 I
    4 | XYZ
             | 20 | Psychology
                                 | Mumbai
                                         | 2023 |
                                                    92 |
                                                   88 |
    5 | David | 22 | Mathematics
                                | Boston
                                         | 2022 |
    6 | Frankie | 21 | English Literature | Ahmednagar | 2023 |
                                                      87 |
    7 | AHDJ | 24 | Chemistry
                                 | Denver | 2022 |
                                                   79 |
    8 | Harshit | 23 | History
                               | Banagalore | 2023 |
                                                   91 I
   8 rows in set (0.00 sec)
5-
mysql> SELECT *
 -> FROM student
 -> WHERE city IN ('Pune', 'Mumbai');
+-----+----+-----+------
| student id | name | age | subject
                               | city | year | percentage |
```

```
3 | ABC | 23 | Business Administration | Pune | 2022 |
                                                           78 |
     4 | XYZ | 20 | Psychology
                                    | Mumbai | 2023 |
                                                        92 |
2 rows in set (0.00 sec)
mysgl> CREATE TABLE teacher (
      teacher id INT PRIMARY KEY,
      name VARCHAR(50),
  ->
  ->
      age INT,
  ->
      course VARCHAR(50),
  ->
      city VARCHAR(25),
      subject expert VARCHAR(50),
  ->
  ->
      year of experience INT,
  ->
      salary DECIMAL(10, 2)
  -> );
Query OK, 0 rows affected (0.48 sec)
mysql> INSERT INTO teacher (teacher_id, name, age, course, city, subject_expert,
year of experience, salary)
  -> VALUES
  -> (1, 'Abhishek Dogal', 35, 'Mathematics', 'Chandrapur', 'Algebra', 8, 75000.00),
  -> (2, 'Alice Sunar', 40, 'Physics', 'Bangalore', 'Quantum Mechanics', 12, 90000.00),
  -> (3, 'Shreya Bid', 32, 'Computer Science', 'San Francisco', 'Data Structures', 6, 65000.00),
  -> (4, 'David Miller', 38, 'Biology', 'Chicago', 'Genetics', 10, 82000.00),
  -> (5, 'Virat Somnath', 33, 'English', 'Boston', 'Literature', 7, 70000.00),
  -> (6, 'Grac Der', 42, 'History', 'Seattle', 'Ancient Civilizations', 15, 95000.00),
  -> (7, 'Vishal Khobragade', 36, 'Chemistry', 'Wardha', 'Organic Chemistry', 9, 78000.00),
  -> (8, 'Jane Carter', 39, 'Economics', 'Houston', 'Microeconomics', 11, 88000.00);
Query OK, 8 rows affected (0.06 sec)
Records: 8 Duplicates: 0 Warnings: 0
mysql> desc teacher;
+-----+
                       | Null | Key | Default | Extra |
            | Type
+-----+
              | int
| teacher id
                       |NO |PRI|NULL |
             |varchar(50) |YES | |NULL |
Iname
age
            | int
                    |varchar(50) |YES | |NULL |
course
           |varchar(25) |YES | |NULL |
| city
| subject_expert | varchar(50) | YES | | NULL |
year of experience | int | YES | | NULL |
            | decimal(10,2) | YES | | NULL |
salary
```

```
+-----+
8 rows in set (0.00 sec)
mysql> select*from teacher;
                    | age | course | city
| teacher id | name
                                           | subject expert
year_of_experience | salary |
+-----+
    1 | Abhishek Dogal | 35 | Mathematics | Chandrapur | Algebra
8 | 75000.00 |
     2 | Alice Sunar | 40 | Physics
                                 | Bangalore | Quantum Mechanics
12 | 90000.00 |
     3 | Shreya Bid | 32 | Computer Science | San Francisco | Data Structures
6 | 65000.00 |
     4 | David Miller | 38 | Biology
                                 | Chicago
                                            | Genetics
                                                                   10 |
82000.00 |
     5 | Virat Somnath | 33 | English
                                | Boston
                                             | Literature
                                                                    7 |
70000.00 |
    6 | Grac Der
                  | 42 | History | Seattle | Ancient Civilizations |
                                                                    15 |
95000.00 |
    7 | Vishal Khobragade | 36 | Chemistry
                                      | Wardha
                                                | Organic Chemistry |
9 | 78000.00 |
     8 | Jane Carter | 39 | Economics
                                    | Houston | Microeconomics
11 | 88000.00 |
8 rows in set (0.00 sec)
mysql> UPDATE teacher
 -> SET city = 'Ahmedabad'
 -> WHERE name = 'Alice Sunar';
Query OK, 1 row affected (0.03 sec)
Rows matched: 1 Changed: 1 Warnings: 0
mysql> select*from teacher;
| teacher_id | name | age | course | city | subject_expert |
year of experience | salary |
```

```
1 | Abhishek Dogal | 35 | Mathematics | Chandrapur | Algebra
8 | 75000.00 |
    2 | Alice Sunar
                | 40 | Physics
                             | Ahmedabad | Quantum Mechanics
12 | 90000.00 |
    3 | Shreya Bid
                | 32 | Computer Science | San Francisco | Data Structures
6 | 65000.00 |
    4 | David Miller | 38 | Biology
                             | Chicago
                                       | Genetics
                                                           10 |
82000.00 |
    5 | Virat Somnath | 33 | English
                             | Boston
                                       | Literature
                                                           7 |
70000.00 |
    6 | Grac Der
                | 42 | History | Seattle | Ancient Civilizations |
                                                           15 |
95000.00
    7 | Vishal Khobragade | 36 | Chemistry
                                 | Wardha
                                          | Organic Chemistry |
9 | 78000.00 |
    8 | Jane Carter | 39 | Economics
                               | Houston | Microeconomics
11 | 88000.00 |
+-----+
8 rows in set (0.00 sec)
6-
mysql> SELECT *
 -> FROM teacher
 -> WHERE city = 'Ahmedabad'
 -> AND name LIKE 'A%':
+-----+
| teacher id | name | age | course | city | subject expert | year of experience | salary
2 | Alice Sunar | 40 | Physics | Ahmedabad | Quantum Mechanics |
                                                       12 |
90000.00 |
1 row in set (0.00 sec)
mysql>
7–
mysql> SELECT *
 -> FROM teacher
 -> WHERE year of experience >= 4;
```

teacher_id   name		city	subject_expert	I	
year_of_experience   sal +		<b></b>	+		+
+				(	·
1   Abhishek Doga 8   75000.00	al   35   Mathema	atics   Cha	ndrapur   Algebra	1	
2   Alice Sunar 12   90000.00	40   Physics	Ahmedab	oad   Quantum Me	echanics	I
3   Shreya Bid 6   65000.00	32   Computer S	Science   San	Francisco   Data S	tructures	I
4   David Miller 82000.00	38   Biology	Chicago	Genetics	1	10
5   Virat Somnath 70000.00	33   English	Boston	Literature	I	7
6   Grac Der 95000.00	42   History	Seattle	Ancient Civilization	ons	15
7   Vishal Khobrag 9   78000.00	gade   36   Chemis	try   Ward	dha   Organic C	Chemistry	I
8   Jane Carter 11   88000.00		·	·		
+	++	+	+	+	+
+					
8 rows in set (0.00 sec)					
mysql> select*from teacl					
+	+	+	+	+	+
+   teacher_id   name	lage Lourse	Leity	l subject expert	1	
year_of_experience   sal		City	Subject_expert	ı	
+		+	+	+	+
+					
	al   35   Mathema	atics   Cha	ndrapur   Algebra	I	
8   75000.00     2   Alice Sunar	I 40 I Physics	l Ahmedah	oad   Quantum Me	echanics	1
12   90000.00	1 40   1 Hydiod	/ timedac	da   Quantum Mi	Containes	1
3   Shreya Bid 6   65000.00	32   Computer S	Science   San	Francisco   Data S	tructures	I
4   David Miller 82000.00	38   Biology	Chicago	Genetics	1	10
•	33   English	Boston	Literature	1	7
•	42   History	Seattle	Ancient Civilization	ons	15

7   Vishal Khobra 9   78000.00	gade	36   Chemistry	y   Wardh	a   Organic Ch	emistry	
8   Jane Carter 11   88000.00	·		•	Microeconomi	·	
++ +	+	-+	-+	+	+	+
8 rows in set (0.00 sec)						
8-						
UPDATE teacher -> SET salary = salary -> WHERE year_of_e Query OK, 8 rows affecte Rows matched: 8 Change	xperier ed (0.0	nce > 5; 2 sec)				
mysql> select*from teach						
+	+	-+	-+	<del>+</del>	+	+
teacher_id   name year_of_experience   sal	ary	-				
++ +	+	-+	-+	+	+	+
1   Abhishek Doga 8   76000.00	al   :	35   Mathemati	cs   Chand	rapur   Algebra	1	
2   Alice Sunar 12   91000.00	40	Physics	Ahmedabad	d   Quantum Med	chanics	1
•	32	Computer So	cience   San F	rancisco   Data Str	uctures	I
4   David Miller 83000.00	38	Biology	Chicago	Genetics	1	10
5   Virat Somnath 71000.00	3	3   English	Boston	Literature	I	7
•	42	History	Seattle	Ancient Civilization	ıs	15
7   Vishal Khobra 9   79000.00	gade	36   Chemistry	y   Wardh	a   Organic Ch	emistry	
8   Jane Carter 11   89000.00				Microeconomi		
++ +	+	-+	-+	+	+	+
8 rows in set (0.00 sec)						

```
SELECT city, COUNT(*) as student_count
 -> FROM student
 -> GROUP BY city;
+----+
| city
     | student count |
+----+
| Wardha |
              1 |
| Nagpur
             1 |
| Pune
             1|
| Mumbai |
             1|
| Boston
             1 |
      | Ahmednagar |
               1 |
| Denver |
             1 |
| Banagalore |
             1|
+----+
10—
SELECT*
 -> FROM student
 -> WHERE percentage > 70
 -> AND city IN (SELECT city FROM teacher WHERE year of experience > 3);
+-----+
student id name age subject
                            | city | year | percentage |
+-----+
    1 | Akshay Bh | 22 | Computer Science | Wardha | 2023 |
                                               90 |
    5 | David | 22 | Mathematics | Boston | 2022 |
                                           88 |
+-----+
11- CREATE TABLE backup_table_name LIKE teacher;
Query OK, 0 rows affected (0.20 sec)
desc backup table name;
+----+
| Field
         | Type
                  | Null | Key | Default | Extra |
                  ---+----+
                  |NO |PRI|NULL |
| teacher id
           | int
```

```
name
           |varchar(50) |YES | |NULL |
age
          | int
               |YES | |NULL | |
course
          | varchar(50) | YES | NULL |
| city
         |varchar(25) |YES | |NULL |
| subject_expert | varchar(50) | YES | NULL |
| year of experience | int
                   |YES||NULL|
        | decimal(10,2) | YES | | NULL |
+-----+
12-
CREATE TABLE multimedia (
     name VARCHAR(50),
     image data LONGBLOB,
 ->
 -> video_data LONGBLOB
 -> );
Query OK, 0 rows affected (0.21 sec)
mysql> desc multimedia;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| name | varchar(50) | YES | | NULL | |
| image_data | longblob | YES | NULL |
| video data | longblob | YES | NULL |
```

+----+