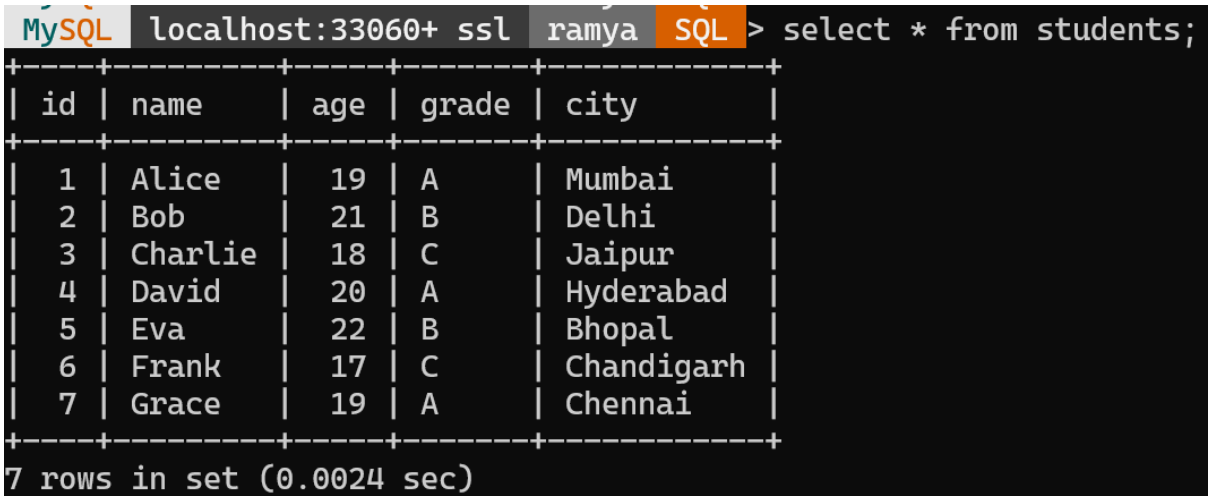
Task:

```
CREATE TABLE Students (
   id INT PRIMARY KEY,
   name VARCHAR(50),
   age INT,
   grade CHAR(1),
   city VARCHAR(50)
);

INSERT INTO Students (id, name, age, grade, city) VALUES
(1, 'Alice', 19, 'A', 'Mumbai'),
(2, 'Bob', 21, 'B', 'Delhi'),
(3, 'Charlie', 18, 'C', 'Jaipur'),
(4, 'David', 20, 'A', 'Hyderabad'),
(5, 'Eva', 22, 'B', 'Bhopal'),
(6, 'Frank', 17, 'C', 'Chandigarh'),
(7, 'Grace', 19, 'A', 'Chennai');
```



1. Retrieve all students whose age is greater than 18.

Select * from students where age>18;

```
MySQL  localhost:33060+ ssl  ramya  SQL > select * from students where age>18;
+----+-------+-----+-------+-----------+
| id | name  | age | grade | city      |
+----+-------+-----+-------+-----------+
|  1 | Alice |  19 | A     | Mumbai    |
|  2 | Bob   |  21 | B     | Delhi     |
|  4 | David |  20 | A     | Hyderabad |
|  5 | Eva   |  22 | B     | Bhopal    |
|  7 | Grace |  19 | A     | Chennai   |
+----+-------+-----+-------+-----------+
5 rows in set (0.0204 sec)
```

2. Retrieve students whose grade is not equal to ‘A’.

Select * from students where grade!=’A’;

```
MySQL  localhost:33060+ ssl  ramya  SQL > select * from students where grade!='A';
+----+---------+-----+-------+------------+
| id | name    | age | grade | city       |
+----+---------+-----+-------+------------+
|  2 | Bob     |  21 | B     | Delhi      |
|  3 | Charlie |  18 | C     | Jaipur     |
|  5 | Eva     |  22 | B     | Bhopal     |
|  6 | Frank   |  17 | C     | Chandigarh |
+----+---------+-----+-------+------------+
4 rows in set (0.0015 sec)
```

3. Retrieve students whose age is between 18 and 21 (inclusive).

Select * from students where age between 18 and 21;

```
MySQL  localhost:33060+ ssl  ramya  SQL > select * from students where age between 18 and 21;
+----+---------+-----+-------+-----------+
| id | name    | age | grade | city      |
+----+---------+-----+-------+-----------+
|  1 | Alice   |  19 | A     | Mumbai    |
|  2 | Bob     |  21 | B     | Delhi     |
|  3 | Charlie |  18 | C     | Jaipur    |
|  4 | David   |  20 | A     | Hyderabad |
|  7 | Grace   |  19 | A     | Chennai   |
+----+---------+-----+-------+-----------+
5 rows in set (0.0052 sec)
```

4. Retrieve students whose age is greater than 18 AND grade is 'A'.
   Select * from students where age>18 and grade='A';

```
MySQL  localhost:33060+ ssl  ramya  SQL > select * from students where age>18 and grade='A';
+----+-------+-----+-------+----------+
| id | name  | age | grade | city     |
+----+-------+-----+-------+----------+
|  1 | Alice |  19 | A     | Mumbai   |
|  4 | David |  20 | A     | Hyderabad |
|  7 | Grace |  19 | A     | Chennai  |
+----+-------+-----+-------+----------+
3 rows in set (0.0037 sec)
```

5. Retrieve students from Delhi OR Jaipur.
   select * from students where city='Delhi' or city='Jaipur';

```
MySQL  localhost:33060+ ssl  ramya  SQL > select * from students where city='Delhi' or city='Jaipur';
+----+---------+-----+-------+--------+
| id | name    | age | grade | city   |
+----+---------+-----+-------+--------+
|  2 | Bob     |  21 | B     | Delhi  |
|  3 | Charlie |  18 | C     | Jaipur |
+----+---------+-----+-------+--------+
2 rows in set (0.0046 sec)
```

6. Retrieve students who are NOT from Mumbai.
   select * from students where city!='Mumbai';

```
MySQL  localhost:33060+ ssl  ramya  SQL > select * from students where city!='Mumbai';
+----+---------+-----+-------+------------+
| id | name    | age | grade | city       |
+----+---------+-----+-------+------------+
|  2 | Bob     |  21 | B     | Delhi      |
|  3 | Charlie |  18 | C     | Jaipur     |
|  4 | David   |  20 | A     | Hyderabad  |
|  5 | Eva     |  22 | B     | Bhopal     |
|  6 | Frank   |  17 | C     | Chandigarh |
|  7 | Grace   |  19 | A     | Chennai    |
+----+---------+-----+-------+------------+
6 rows in set (0.0014 sec)
```

7. Display each student's name and their age increased by 1.

Update students set age=age+1;

Select name, age from students;

```
MySQL localhost:33060+ ssl ramya SQL > update students set age=age+1;
Query OK, 7 rows affected (0.0347 sec)

Rows matched: 7  Changed: 7  Warnings: 0
MySQL localhost:33060+ ssl ramya SQL > select name,age from students;
+---------+-----+
| name    | age |
+---------+-----+
| Alice   |  20 |
| Bob     |  22 |
| Charlie |  19 |
| David   |  21 |
| Eva     |  23 |
| Frank   |  18 |
| Grace   |  20 |
+---------+-----+
7 rows in set (0.0014 sec)
```

8. Retrieve students whose age multiplied by 2 is greater than 40.

Update students set age=age*2;

Select * from students where age>40;

```
MySQL localhost:33060+ ssl ramya SQL > update students set age=age*2;
Query OK, 7 rows affected (0.0088 sec)

Rows matched: 7  Changed: 7  Warnings: 0
MySQL localhost:33060+ ssl ramya SQL > select * from students where age>40;
+----+-------+-----+-------+-----------+
| id | name  | age | grade | city      |
+----+-------+-----+-------+-----------+
|  2 | Bob   |  44 | B     | Delhi     |
|  4 | David |  42 | A     | Hyderabad |
|  5 | Eva   |  46 | B     | Bhopal    |
+----+-------+-----+-------+-----------+
3 rows in set (0.0018 sec)
```

9. Retrieve students whose name starts with 'A'.

select * from students where name like 'A%';

```
MySQL localhost:33060+ ssl ramya SQL > select * from students where name like 'A%';
+----+-------+-----+-------+--------+
| id | name  | age | grade | city   |
+----+-------+-----+-------+--------+
|  1 | Alice |  40 | A     | Mumbai |
+----+-------+-----+-------+--------+
1 row in set (0.0020 sec)
```

10. Retrieve students whose city ends with 'pur'.

select * from students where city like '%pur';

```
MySQL localhost:33060+ ssl ramya SQL > select * from students where city like '%pur';
+----+---------+-----+-------+--------+
| id | name    | age | grade | city   |
+----+---------+-----+-------+--------+
|  3 | Charlie |  38 | C     | Jaipur |
+----+---------+-----+-------+--------+
1 row in set (0.0013 sec)
```

11. Retrieve students whose name contains the letter 'a' (case-insensitive).

select * from students where lower(name) like '%a%';

```
MySQL localhost:33060+ ssl ramya SQL > SELECT * FROM students WHERE LOWER(name) LIKE '%a%';
+----+---------+-----+-------+------------+
| id | name    | age | grade | city       |
+----+---------+-----+-------+------------+
|  1 | Alice   |  40 | A     | Mumbai     |
|  3 | Charlie |  38 | C     | Jaipur     |
|  4 | David   |  42 | A     | Hyderabad  |
|  5 | Eva     |  46 | B     | Bhopal     |
|  6 | Frank   |  36 | C     | Chandigarh |
|  7 | Grace   |  40 | A     | Chennai    |
+----+---------+-----+-------+------------+
6 rows in set (0.0212 sec)
```