```
mysql> select * from employees1;
+-------------+-------------+-------------+---------------+--------+
| employee_id | first_name  | last_name   | device_serial | salary |
+-------------+-------------+-------------+---------------+--------+
|           1 | John        | Smith       | ABC123        |  60000 |
|           2 | Jane        | Doe         | DEF456        |  65000 |
|           3 | Bob         | Johnson     | GHI789        |  70000 |
|           4 | Sally       | Fields      | JKL012        |  75000 |
|           5 | Michael     | Smith       | MNO345        |  80000 |
|           6 | Emily       | Jones       | PQR678        |  85000 |
|           7 | David       | Williams    | STU901        |  90000 |
|           8 | Sarah       | Johnson     | VWX234        |  95000 |
|           9 | James       | Brown       | YZA567        | 100000 |
|          10 | Emma        | Miller      | BCD890        | 105000 |
|          11 | William     | Davis       | EFG123        | 110000 |
|          12 | Olivia      | Garcia      | HIJ456        | 115000 |
|          13 | Christopher | Rodriguez   | KLM789        | 120000 |
|          14 | Isabella    | Wilson      | NOP012        | 125000 |
|          15 | Matthew     | Martinez    | QRS345        | 130000 |
|          16 | Sophia      | Anderson    | TUV678        | 135000 |
|          17 | Daniel      | Smith       | WXY901        | 140000 |
|          18 | Mia         | Thomas      | ZAB234        | 145000 |
|          19 | Joseph      | Hernandez   | CDE567        | 150000 |
|          20 | Abigail     | Smith       | FGH890        | 155000 |
+-------------+-------------+-------------+---------------+--------+
20 rows in set (0.00 sec)
```

```
mysql> desc employees1;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| employee_id   | int         | YES  | MUL | NULL    |       |
| first_name    | varchar(50) | YES  |     | NULL    |       |
| last_name     | varchar(50) | YES  |     | NULL    |       |
| device_serial | varchar(15) | YES  |     | NULL    |       |
| salary        | int         | YES  |     | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

```
mysql> create view v1 as select employee_id,salary from employees1;
Query OK, 0 rows affected (0.02 sec)

mysql> desc v1;
+-------------+------+------+-----+---------+-------+
| Field       | Type | Null | Key | Default | Extra |
+-------------+------+------+-----+---------+-------+
| employee_id | int  | YES  |     | NULL    |       |
| salary      | int  | YES  |     | NULL    |       |
+-------------+------+------+-----+---------+-------+
2 rows in set (0.01 sec)
```

```
+-------------+---------+
| employee_id | salary  |
+-------------+---------+
|           1 |   60000 |
|           2 |   65000 |
|           3 |   70000 |
|           4 |   75000 |
|           5 |   80000 |
|           6 |   85000 |
|           7 |   90000 |
|           8 |   95000 |
|           9 |  100000 |
|          10 |  105000 |
|          11 |  110000 |
|          12 |  115000 |
|          13 |  120000 |
|          14 |  125000 |
|          15 |  130000 |
|          16 |  135000 |
|          17 |  140000 |
|          18 |  145000 |
|          19 |  150000 |
|          20 |  155000 |
|         101 |  100001 |
+-------------+---------+
21 rows in set (0.00 sec)
```

```
mysql> select * from employees1;
+-------------+-------------+------------+---------------+--------+
| employee_id | first_name  | last_name  | device_serial | salary |
+-------------+-------------+------------+---------------+--------+
|           1 | John        | Smith      | ABC123        |  60000 |
|           2 | Jane        | Doe        | DEF456        |  65000 |
|           3 | Bob         | Johnson    | GHI789        |  70000 |
|           4 | Sally       | Fields     | JKL012        |  75000 |
|           5 | Michael     | Smith      | MNO345        |  80000 |
|           6 | Emily       | Jones      | PQR678        |  85000 |
|           7 | David       | Williams   | STU901        |  90000 |
|           8 | Sarah       | Johnson    | VWX234        |  95000 |
|           9 | James       | Brown      | YZA567        | 100000 |
|          10 | Emma        | Miller     | BCD890        | 105000 |
|          11 | William     | Davis      | EFG123        | 110000 |
|          12 | Olivia      | Garcia     | HIJ456        | 115000 |
|          13 | Christopher | Rodriguez  | KLM789        | 120000 |
|          14 | Isabella    | Wilson     | NOP012        | 125000 |
|          15 | Matthew     | Martinez   | QRS345        | 130000 |
|          16 | Sophia      | Anderson   | TUV678        | 135000 |
|          17 | Daniel      | Smith      | WXY901        | 140000 |
|          18 | Mia         | Thomas     | ZAB234        | 145000 |
|          19 | Joseph      | Hernandez  | CDE567        | 150000 |
|          20 | Abigail     | Smith      | FGH890        | 155000 |
|         101 | NULL        | NULL       | NULL          | 100001 |
+-------------+-------------+------------+---------------+--------+
```

```
mysql> select * from employees1;
+-------------+-------------+------------+---------------+---------+
| employee_id | first_name  | last_name  | device_serial | salary  |
+-------------+-------------+------------+---------------+---------+
|           1 | John        | Smith      | ABC123        |   60000 |
|           2 | Jane        | Doe        | DEF456        |   65000 |
|           3 | Bob         | Johnson    | GHI789        |   70000 |
|           4 | Sally       | Fields     | JKL012        |   75000 |
|           5 | Michael     | Smith      | MNO345        |   80000 |
|           6 | Emily       | Jones      | PQR678        |   85000 |
|           7 | David       | Williams   | STU901        |   90000 |
|           8 | Sarah       | Johnson    | VWX234        |   95000 |
|           9 | James       | Brown      | YZA567        |  100000 |
|          10 | Emma        | Miller     | BCD890        |  105000 |
|          11 | William     | Davis      | EFG123        |  110000 |
|          12 | Olivia      | Garcia     | HIJ456        |  115000 |
|          13 | Christopher | Rodriguez  | KLM789        |  120000 |
|          14 | Isabella    | Wilson     | NOP012        |  125000 |
|          15 | Matthew     | Martinez   | QRS345        |  130000 |
|          16 | Sophia      | Anderson   | TUV678        |  135000 |
|          17 | Daniel      | Smith      | WXY901        |  140000 |
|          18 | Mia         | Thomas     | ZAB234        |  145000 |
|          19 | Joseph      | Hernandez  | CDE567        |  150000 |
|          20 | Abigail     | Smith      | FGH890        |  155000 |
+-------------+-------------+------------+---------------+---------+
20 rows in set (0.00 sec)
```

```
mysql> select * from employees1;
+-------------+-------------+-----------+---------------+--------+
| employee_id | first_name  | last_name | device_serial | salary |
+-------------+-------------+-----------+---------------+--------+
|           1 | John        | Smith     | ABC123        |  60000 |
|           2 | Jane        | Doe       | DEF456        |  65000 |
|           3 | Bob         | Johnson   | GHI789        |  70000 |
|           4 | Sally       | Fields    | JKL012        |  75000 |
|           5 | Michael     | Smith     | MNO345        |  80000 |
|           6 | Emily       | Jones     | PQR678        |  85000 |
|           7 | David       | Williams  | STU901        |  90000 |
|           8 | Sarah       | Johnson   | VWX234        |  95000 |
|           9 | James       | Brown     | YZA567        | 100000 |
|          10 | Emma        | Miller    | BCD890        | 105000 |
|          11 | William     | Davis     | EFG123        | 110000 |
|          12 | Olivia      | Garcia    | HIJ456        | 115000 |
|          13 | Christopher | Rodriguez | KLM789        | 120000 |
|          14 | Isabella    | Wilson    | NOP012        | 125000 |
|          15 | Matthew     | Martinez  | QRS345        | 130000 |
|          16 | Sophia      | Anderson  | TUV678        | 135000 |
|          17 | Daniel      | Smith     | WXY901        | 140000 |
|          18 | Mia         | Thomas    | ZAB234        | 145000 |
|          19 | Joseph      | Hernandez | CDE567        | 150000 |
|          20 | Abigail     | Smith     | FGH890        | 155000 |
+-------------+-------------+-----------+---------------+--------+
20 rows in set (0.00 sec)
```

```
mysql> select first_name from employees1 where salary>145000;
+------------+
| first_name |
+------------+
| Joseph     |
| Abigail    |
+------------+
2 rows in set (0.00 sec)

mysql> explain select first_name from employees1 where salary>145000;
+----+-------------+------------+------------+------+---------------+------+---------+------+------+----------+-------------+
| id | select_type | table      | partitions | type | possible_keys | key  | key_len | ref  | rows | filtered | Extra       |
+----+-------------+------------+------------+------+---------------+------+---------+------+------+----------+-------------+
|  1 | SIMPLE      | employees1 | NULL       | ALL  | NULL          | NULL | NULL    | NULL |   20 |    33.33 | Using where |
+----+-------------+------------+------------+------+---------------+------+---------+------+------+----------+-------------+
1 row in set, 1 warning (0.00 sec)

mysql> create index index1 on employees1(salary);
Query OK, 0 rows affected (0.04 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> explain select first_name from employees1 where salary>145000;
+----+-------------+------------+------------+-------+---------------+--------+---------+------+------+----------+-----------------------+
| id | select_type | table      | partitions | type  | possible_keys | key    | key_len | ref  | rows | filtered | Extra                 |
+----+-------------+------------+------------+-------+---------------+--------+---------+------+------+----------+-----------------------+
|  1 | SIMPLE      | employees1 | NULL       | range | index1        | index1 | 5       | NULL |    2 |   100.00 | Using index condition |
+----+-------------+------------+------------+-------+---------------+--------+---------+------+------+----------+-----------------------+
1 row in set, 1 warning (0.00 sec)
```

```
mysql> select first_name from employees1 where employee_id=10;
+------------+
| first_name |
+------------+
| Emma       |
+------------+
1 row in set (0.00 sec)

mysql> explain select first_name from employees1 where employee_id=10;
+----+-------------+------------+------------+------+---------------+------+---------+------+------+----------+-------------+
| id | select_type | table      | partitions | type | possible_keys | key  | key_len | ref  | rows | filtered | Extra       |
+----+-------------+------------+------------+------+---------------+------+---------+------+------+----------+-------------+
|  1 | SIMPLE      | employees1 | NULL       | ALL  | NULL          | NULL | NULL    | NULL |   20 |    10.00 | Using where |
+----+-------------+------------+------------+------+---------------+------+---------+------+------+----------+-------------+
1 row in set, 1 warning (0.00 sec)

mysql> create index index1 on employees1(employee_id);
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> explain select first_name from employees1 where employee_id=10;
+----+-------------+------------+------------+------+---------------+--------+---------+-------+------+----------+-------+
| id | select_type | table      | partitions | type | possible_keys | key    | key_len | ref   | rows | filtered | Extra |
+----+-------------+------------+------------+------+---------------+--------+---------+-------+------+----------+-------+
|  1 | SIMPLE      | employees1 | NULL       | ref  | index1        | index1 | 5       | const |    1 |   100.00 | NULL  |
+----+-------------+------------+------------+------+---------------+--------+---------+-------+------+----------+-------+
1 row in set, 1 warning (0.00 sec)
```

```
mysql> show index from employees1;
```

Table	Non_unique	Key_name	Seq_in_index	Column_name	Collation	Cardinality	Sub_part	Packed	Null	Index_type	Comment	Index_comment	Visible	Expression
employees1	1	index1	1	employee_id	A	20	NULL	NULL	YES	BTREE			YES	NULL

```
1 row in set (0.00 sec)
```