NULL values

What do we do when we have to compare a value against a NULL value? Is NULL < 8? Are 2 NULL values equal to each other?

Let’s look at an example:

```
mysql> SELECT * FROM Enrolled;
+----+-----+-------+-------+
<table>
<thead>
<tr>
<th>SID</th>
<th>ClassID</th>
<th>Grade</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CS314</td>
<td>NULL</td>
<td>NULL</td>
</tr>
<tr>
<td>1</td>
<td>CS575</td>
<td>NULL</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>CS430</td>
<td>NULL</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>CS575</td>
<td>NULL</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>CS314</td>
<td>NULL</td>
<td>NULL</td>
</tr>
<tr>
<td>3</td>
<td>CT320</td>
<td>NULL</td>
<td>4</td>
</tr>
</tbody>
</table>
+----+-----+-------+-------+
6 rows in set (0.00 sec)
```

mysql> SELECT * FROM Enrolled
   -> WHERE Credits < 4;
Empty set (0.00 sec)

mysql> SELECT * FROM Enrolled
   -> WHERE Credits > 4;
Empty set (0.00 sec)

Neither of these comparisons evaluated to TRUE – which is of course what we want. Now how about 2 NULL values? Do they compare to equal?

```
mysql> SELECT * FROM Enrolled E1, Enrolled E2
   -> WHERE E1.Credits = E2.Credits AND
      -> E1.ClassID = "CS314";
Empty set (0.01 sec)
```

How do we handle NULL? There is a special operator to check for it.
mysql> SELECT * FROM Enrolled E1
    -> WHERE E1.Credits IS NULL;
+-------------+-----------+--------+---------+
| SID | ClassID | Grade | Credits |
|-----+---------+--------+---------|
| 1   | CS314   | NULL   | NULL    |
| 3   | CS314   | NULL   | NULL    |
+-------------+-----------+--------+---------+
2 rows in set (0.00 sec)

Note that the following will not work:

mysql> SELECT * FROM Enrolled E1
    -> WHERE E1.Credits = NULL;
Empty set (0.00 sec)