

1. Using `AND` and `OR` together:

- Retrieve recipes with a rate greater than 4.0 and a name containing "Spicy," or recipes with a rate equal to 5.0 and a name containing "Sweet."

```
SELECT *  
FROM recipe_details  
WHERE (RecipeRate > 4.0 AND RecipeName LIKE '%Spicy%')  
OR (RecipeRate = 5.0 AND RecipeName LIKE '%Sweet%');
```

In this query, we use parentheses to group conditions to ensure the correct logical evaluation. We want to retrieve rows that meet either the first set of conditions (rate > 4.0 and name contains "Spicy") or the second set (rate = 5.0 and name contains "Sweet").

2. Using `>` and `<`:

- Retrieve recipes with rates greater than 3.0 but less than 4.0.

```
SELECT *  
FROM recipe_details  
WHERE RecipeRate > 3.0 AND RecipeRate < 4.0;
```

Here, we use the `>` and `<` operators to create a range for the `RecipeRate` column.

3. Using `=`:

- Retrieve recipes with a rate equal to 4.5.

```
SELECT *  
FROM recipe_details  
WHERE RecipeRate = 4.5;
```

This query selects recipes where the `RecipeRate` column is equal to 4.5.

4. Using `BETWEEN`:

- Retrieve recipes with rates between 3.0 and 4.0 (inclusive).

```
SELECT *  
FROM recipe_details  
WHERE RecipeRate BETWEEN 3.0 AND 4.0;
```

The `BETWEEN` operator is used to specify a range, and it includes both the lower and upper bounds in the result set.

5. Combining `BETWEEN` and `OR`:

- Retrieve recipes with rates between 2.0 and 3.0 OR rates between 4.0 and 5.0.

```
SELECT *  
FROM recipe_details  
WHERE (RecipeRate BETWEEN 2.0 AND 3.0)  
OR (RecipeRate BETWEEN 4.0 AND 5.0);
```

Here, we use `BETWEEN` with `OR` to select recipes in two separate rate ranges. If a recipe's rate falls within either range, it will be included in the result.

6. Using `LIMIT` with `AND` and `OR`:

- Retrieve the top 5 recipes with a rate greater than 4.0 and a name containing "Spicy," or recipes with a rate equal to 5.0 and a name containing "Sweet."

```
SELECT *  
FROM recipe_details  
WHERE (RecipeRate > 4.0 AND RecipeName LIKE '%Spicy%')  
OR (RecipeRate = 5.0 AND RecipeName LIKE '%Sweet%')  
LIMIT 5;
```

In this query, we limit the result to the top 5 rows that meet the specified conditions.

7. Using `LIMIT` with `>` and `<`:

- Retrieve the first 10 recipes with rates greater than 3.0 but less than 4.0.

```
SELECT *  
FROM recipe_details  
WHERE RecipeRate > 3.0 AND RecipeRate < 4.0  
LIMIT 10;
```

Here, we limit the result to the first 10 rows that meet the rate conditions.

8. Using `LIMIT` with `=`:

- Retrieve the first 3 recipes with a rate equal to 4.5.

```
SELECT *  
FROM recipe_details  
WHERE RecipeRate = 4.5  
LIMIT 3;
```

In this query, we limit the result to the first 3 rows with a rate of 4.5.

9. Using `LIMIT` with `BETWEEN`:

- Retrieve the top 8 recipes with rates between 3.0 and 4.0 (inclusive).

```
SELECT *  
FROM recipe_details  
WHERE RecipeRate BETWEEN 3.0 AND 4.0  
LIMIT 8;
```

Here, we use `LIMIT` to restrict the result to the top 8 rows within the specified rate range.

10. Using `LIMIT` with `BETWEEN` and `OR`:

- Retrieve the first 5 recipes with rates between 2.0 and 3.0 OR rates between 4.0 and 5.0.

```
SELECT *  
FROM recipe_details  
WHERE (RecipeRate BETWEEN 2.0 AND 3.0)  
OR (RecipeRate BETWEEN 4.0 AND 5.0)  
LIMIT 5;
```

In this query, we limit the result to the first 5 rows that meet either of the specified rate ranges.