University of Central Florida
CGS 2545
Database Concepts

Wildcard Operators

- We have already discussed about the SQL LIKE operator, which is used to compare a value to similar values using the wildcard operators.

- SQL supports two wildcard operators in conjunction with the LIKE operator which are explained in detail in the following table.

Wildcard Operators

- **The percent sign (%)**
  - Matches one or more characters.
  - The percent sign represents zero, one or multiple characters.
  - **Note** – MS Access uses the asterisk (*) wildcard character instead of the percent sign (%) wildcard character.
- **The underscore (_)**
  - Matches one character.
  - **Note** – MS Access uses a question mark (?) instead of the underscore (_) to match any one character.
  - The underscore represents a single number or a character.
- These symbols can be used in combinations.

Wildcard Operators

```
SELECT FROM table_name
WHERE column LIKE 'XXXX%'


or


SELECT FROM table_name
WHERE column LIKE '%XXXX%'


or


SELECT FROM table_name
WHERE column LIKE 'XXXX_'


or


SELECT FROM table_name
WHERE column LIKE '_XXXX'


or


SELECT FROM table_name
WHERE column LIKE '_XXXX_'
```

Wildcard Operators

- **WHERE SALARY LIKE '200%'**

  – Finds any values that start with 200.

- **WHERE SALARY LIKE '%200%'**

  – Finds any values that have 200 in any position.

- **WHERE SALARY LIKE '_00%'**

  – Finds any values that have 00 in the second and third positions.

- **WHERE SALARY LIKE '2_%_%'**

  – Finds any values that start with 2 and are at least 3 characters in length.

Wildcard Operators

- **WHERE SALARY LIKE '%2'**

  – Finds any values that end with 2.

- **WHERE SALARY LIKE '_2%3'**

  – Finds any values that have a 2 in the second position and end with a 3.

- **WHERE SALARY LIKE '2___3'**

  – Finds any values in a five-digit number that start with 2 and end with 3.

Wildcard Operators

- Let us take a real example, consider the CUSTOMERS table having the following records.

```
+----+----------+-----+-----------+----------+
| ID | NAME     | AGE | ADDRESS   | SALARY   |
+----+----------+-----+-----------+----------+
|  1 | Ramesh   |  32 | Ahmedabad |  2000.00 |
|  2 | Khilan   |  25 | Delhi     |  1500.00 |
|  3 | kaushik  |  23 | Kota      |  2000.00 |
|  4 | Chaitali |  25 | Mumbai    |  6500.00 |
|  5 | Hardik   |  27 | Bhopal    |  8500.00 |
|  6 | Komal    |  22 | MP        |  4500.00 |
|  7 | Muffy    |  24 | Indore    | 10000.00 |
+----+----------+-----+-----------+----------+
```

Wildcard Operators

- The following code block is an example, which would display all the records from the CUSTOMERS table where the SALARY starts with 200.

```
SQL> SELECT * FROM CUSTOMERS
WHERE SALARY LIKE '200%';
```

```
+----+----------+-----+-----------+----------+
| ID | NAME     | AGE | ADDRESS   | SALARY   |
+----+----------+-----+-----------+----------+
|  1 | Ramesh   |  32 | Ahmedabad | 2000.00  |
|  3 | kaushik  |  23 | Kota      | 2000.00  |
+----+----------+-----+-----------+----------+
```