B.Com(Corp) 2'c
SBT II

DBMS

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Operators

* **SQL Operators:** An operator is a reserved word or a character used primarily in an SQL ~~statements~~ statements WHERE clause to perform operation(s), such as comparisons & arithmetic operations. These operators are used to specify conditions in an SQL statement & to serve as conjunctions for multiple conditions in a statement.

1) **SQL Arithmetic Operators:** Assume 'variable a' holds to & 'variable b' holds 20, then

Operator	Description	Example
+ (Addition	Adds value on either side of operator	a+b will give 30
- (Subtraction)	Subtracts right hand operand from left hand operand.	a-b will give -10.
* (multiplication)	Multiplies values on either side of the operator	a*b will give 200
/ (Division)	Divison left hand operand by right hand operand.	b/a will give 2
% (modulus)	Divides left hand operand by right hand operand & returns remainder.	b%a will give 0

2) Relational operators:

Operator	Description	Example
= (Equal to)	Checks if the value of two operands are equal or not, if yes then condition becomes true.	(a=b) is not true.
!= <>	Check if the value of two operands are equal or not, if values are not equal then condition becomes true	(a != b) is true.
>	Checks if the value of left operand is greater than the value of right operand, if yes then condition becomes true.	(a > b) is not true.
<	checks if the value of left operand is less than the value of right operand, if yes the condition become true.	(a < b) is not true
>=	Checks if the value of left operand is greater than or equal to the value of right operand, if yes then condition becomes true.	(a >= b) is not true.
<=	Checks if the value of left operand is less than or equal to the value of right operand, if yes then condition becomes true.	(a <= b) is true.

3) SQL logical operators :

S.No | Operators & Descriptions

1) AND = It allow the existence of multiple conditions in an SQL statement's where clause.

2) OR = Its used to combine multiple conditions in an SQL statement WHERE clause.

3) NOT = It reverse the meaning of logical operator with which it is used. Eg. NOT EXISTS, NOT BETWEEN, NOT IN, etc. This is Negate operator.

4) ANY = The Any operator is used to compare a value to any applicable value in list as per the condition.

5) BETWEEN = Its used to search for values that are within a set of values, given the minimum value & the maximum value.

6) EXISTS = Its used to search for the presence of a row in a specified table that meets a certain criterion.

7) IN = The IN operator is used to compare a value to a list of literal values that have been specified.

8) LIKE = Its used to compare a value to similar values using wildcard operators.

Examples on operators:

1) UPDATE emp SET sal = sal * 1.5;
2) SELECT * from emp WHERE sal != 1500;
3) SELECT * FROM emp WHERE job IN ('CLERK', 'ANALYST');
4) SELECT * FROM emp WHERE sal NOT IN ('CLERK', 'ANALYST');
5) SELECT first_name, last_name, age FROM student WHERE age >= 10 AND age <= 15;
6) SELECT * FROM emp WHERE Job = 'CLERK' AND deptno = 10;
7) SELECT * FROM emp WHERE Job = 'CLERK' OR deptno = 10;
8) SELECT first_name, last_name, games from student WHERE NOT games = 'Football';