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Subject - Database Management System

Course - B.Sc. CS (Hons.)

Semester - 3rd

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Part - B

Answer No-1

A join clause is used to combine rows from two or more tables based on a related column between them.

It is denoted by \bowtie . for eg. $R_1 \bowtie R_2$ here R_1 and R_2 are two tables.

There are four types of joins.

1. Inner join: This kind of join returns that matching values which have both tables or which data are in both tables.
2. Left join: The left join keyword returns all records from the left table (table 1), and matching records from the right table (table 2). The result will be 0 records if there is no column in table 2. This is also known as left outer join.^{matching}
Denoted by - \ltimes , eg. - Table 1 \ltimes Table 2.
3. Right join: The right join keyword returns all records from the right table (table 2), and matching records from the left table (table 1). Same as left join it will also give 0 record if there is not any matching record in left table.
Denoted - \rtimes , eg - Table 1 \rtimes Table 2
4. Full outer join - The full outer join returns all records when there is a match in left table (table 1) or right table (table 2) table records.
Denoted: $\ltimes\rtimes$, eg - table 1 $\ltimes\rtimes$ table 2

Answer No- 4

Like operator - The like is a logical operation that is used to determine wheather a specified character string matches a specified pattern it is commonly used in a where clause to search for a specified pattern in a column. this operator can be useful in cases where we need to perform pattern matching instead of equal or not equal.

Order by - An order by clause is used when we need to get the select statement returns a result set with rows being sorted by the values of one or more column. The expression are evaluated and the result are used for the sorting i.e. the values sorted in the column or the result of function call. It will give sorted value either in asc ending or descending.

In - in condition allows you to match wheather the given condition/value is in table or not .if helps to reduce the use of multiple or condition.

Between - The between keyword allow you to easily test if an expression which is in range of values (inclusion). The values can be text, date, numbers .It can be used -select, insert, delete.

Not Between - Not between is used for getting the values as part of result set which is outside of the range specified by the between operator.

Answers NO-3

- 1. $\pi_{roll\ no.,\ sname} (\sigma_{sem=VI} (Student))$
- 2. $\pi_{sname} (\sigma_{sem=VI \cup sem=VIII} (Student))$

Part - A
Answer

- 1. Data Flow Model
- 2. none
- 3. Division
- 4. All
- 5. The person detail who belongs to Bilaspur
- 6. All of the above.