1. Result set is the data returned from the select statement or a stored procedure.
2. UNION selects only distinct values, however, the UNION ALL may allow the duplicated values.
3. Set operators in SQL server include UNION, UNION ALL, INTERSECT, and EXCEPT.
4. UNION is used to combine the result from two or more SELECT statements into new distinct rows. However, JOIN combines data from many tables based on the given condition, usually is the matched relationship between them.
5. INNER JOIN will return rows which match both of the tables. And FULL JOIN will return rows when there is a match in either of the tables
6. LEFT JOIN will return all rows from the left table and those matched records from right table. And OUTER JOIN will return all rows when there is a match in either of the two tables.
7. Cross join will return the cartesian products of sets of two tables. Basically it will select all the rows from the first table and all the rows from second table and shows all the possibilities.
8. WHERE is used to extract data which are satisfying the specific condition. And HAVING is used to filter records from groups based on a given condition.
9. Yes. GROUP BY can contain two or more columns.