

TABLE X		
A	B	C
A1	100	10
A2	200	20
A3	300	30
A4	400	40

TABLE Y		
P	Q	R
A1	100	10
A2	200	20
A3	300	30
A5	400	40

TEST			
A	B	C	D
A1	B1	USA	5
A2	B2	INDIA	15
A4	B3	INDONESIA	35
A5	B2	UK	20

COMMAND	DESCRIPTION	QUERY	RESULT OF THE QUERY																																																																																																						
INNER JOIN	Used to fetch common records from two tables using a common column present in both the tables	Hover Mouse to See Query [1]	<table><tr><th>X.A</th><th>X.B</th><th>X.C</th><th>Y.P</th><th>Y.Q</th><th>Y.R</th></tr><tr><td>A1</td><td>100</td><td>10</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A3</td><td>300</td><td>30</td></tr></table>	X.A	X.B	X.C	Y.P	Y.Q	Y.R	A1	100	10	A1	100	10	A2	200	20	A2	200	20	A3	300	30	A3	300	30																																																																														
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LEFT JOIN	Used to fetch all the records from the left table even if there are no matches in the right table	Hover Mouse to See Query [2]	<table><tr><th>X.A</th><th>X.B</th><th>X.C</th><th>Y.P</th><th>Y.Q</th><th>Y.R</th></tr><tr><td>A1</td><td>100</td><td>10</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>A4</td><td>400</td><td>40</td><td>NULL</td><td>NULL</td><td>NULL</td></tr></table>	X.A	X.B	X.C	Y.P	Y.Q	Y.R	A1	100	10	A1	100	10	A2	200	20	A2	200	20	A3	300	30	A3	300	30	A4	400	40	NULL	NULL	NULL																																																																								
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RIGHT JOIN	Used to fetch all the records from the right table even if there are no matches in the left table	Hover Mouse to See Query [3]	<table><tr><th>A</th><th>B</th><th>C</th><th>D</th><th>A</th><th>Q</th></tr><tr><td>A1</td><td>100</td><td>10</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>NULL</td><td>NULL</td><td>NULL</td><td>A5</td><td>400</td><td>40</td></tr></table>	A	B	C	D	A	Q	A1	100	10	A1	100	10	A2	200	20	A2	200	20	A3	300	30	A3	300	30	NULL	NULL	NULL	A5	400	40																																																																								
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UNION ALL	UNION ALL fetches all the records in the two tables. The tables are put one on top of the other and the column names are got from the top table.	Hover Mouse to See Query [4]	<table><tr><th>A</th><th>B</th><th>C</th></tr><tr><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td></tr><tr><td>A4</td><td>400</td><td>40</td></tr><tr><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td></tr><tr><td>A5</td><td>400</td><td>40</td></tr></table>	A	B	C	A1	100	10	A2	200	20	A3	300	30	A4	400	40	A1	100	10	A2	200	20	A3	300	30	A5	400	40																																																																											
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UNION	UNION works the same as UNION ALL, but fetches only the distinct records	Hover Mouse to See Query [5]	<table><tr><th>A</th><th>B</th><th>C</th></tr><tr><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td></tr><tr><td>A4</td><td>400</td><td>40</td></tr><tr><td>A5</td><td>400</td><td>40</td></tr></table>	A	B	C	A1	100	10	A2	200	20	A3	300	30	A4	400	40	A5	400	40																																																																																				
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FULL JOIN	What if you want all the matching recording in each table along with all the columns? You can do what is called as a FULL JOIN using UNION.	Hover Mouse to See Query [6]	<table><tr><th>X.A</th><th>X.B</th><th>X.C</th><th>Y.P</th><th>Y.Q</th><th>Y.R</th></tr><tr><td>A1</td><td>100</td><td>10</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>A4</td><td>400</td><td>40</td><td>NULL</td><td>NULL</td><td>NULL</td></tr><tr><td>A1</td><td>100</td><td>10</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>NULL</td><td>NULL</td><td>NULL</td><td>A5</td><td>400</td><td>40</td></tr></table>	X.A	X.B	X.C	Y.P	Y.Q	Y.R	A1	100	10	A1	100	10	A2	200	20	A2	200	20	A3	300	30	A3	300	30	A4	400	40	NULL	NULL	NULL	A1	100	10	A1	100	10	A2	200	20	A2	200	20	A3	300	30	A3	300	30	NULL	NULL	NULL	A5	400	40																																																
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CROSS JOIN	Returns the cartesian product of the rows of tables in the join. Eg: If Table-X has 4 rows and Table-Y has 4 rows, then the join returns 4*4 = 16 rows	Hover Mouse to See Query [7]	<table><tr><th>X.A</th><th>X.B</th><th>X.C</th><th>Y.P</th><th>Y.Q</th><th>Y.R</th></tr><tr><td>A1</td><td>100</td><td>10</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A1</td><td>100</td><td>10</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A1</td><td>100</td><td>10</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>A1</td><td>100</td><td>10</td><td>A5</td><td>400</td><td>40</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A5</td><td>400</td><td>40</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A5</td><td>400</td><td>40</td></tr><tr><td>A4</td><td>400</td><td>40</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A4</td><td>400</td><td>40</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A4</td><td>400</td><td>40</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>A4</td><td>400</td><td>40</td><td>A5</td><td>400</td><td>40</td></tr></table>	X.A	X.B	X.C	Y.P	Y.Q	Y.R	A1	100	10	A1	100	10	A1	100	10	A2	200	20	A1	100	10	A3	300	30	A1	100	10	A5	400	40	A2	200	20	A1	100	10	A2	200	20	A2	200	20	A2	200	20	A3	300	30	A2	200	20	A5	400	40	A3	300	30	A1	100	10	A3	300	30	A2	200	20	A3	300	30	A3	300	30	A3	300	30	A5	400	40	A4	400	40	A1	100	10	A4	400	40	A2	200	20	A4	400	40	A3	300	30	A4	400	40	A5	400	40
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SELF JOIN	It is used to join a table to itself. Generally used for comparing the rows within the same table	Hover Mouse to See Query [8]	<table><tr><th>T1.A</th><th>T1.B</th><th>T1.C</th><th>T2.A</th><th>T2.B</th><th>T2.C</th></tr><tr><td>A1</td><td>100</td><td>10</td><td>A1</td><td>100</td><td>10</td></tr><tr><td>A2</td><td>200</td><td>20</td><td>A2</td><td>200</td><td>20</td></tr><tr><td>A3</td><td>300</td><td>30</td><td>A3</td><td>300</td><td>30</td></tr><tr><td>A4</td><td>400</td><td>40</td><td>A4</td><td>400</td><td>40</td></tr></table>	T1.A	T1.B	T1.C	T2.A	T2.B	T2.C	A1	100	10	A1	100	10	A2	200	20	A2	200	20	A3	300	30	A3	300	30	A4	400	40	A4	400	40																																																																								
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```
[1] SELECT *  
FROM X INNER JOIN Y  
ON X.A = Y.P
```

```
[2] SELECT *  
FROM X LEFT JOIN Y  
ON X.A = Y.P
```

```
[3] SELECT *  
FROM X RIGHT JOIN Y  
ON X.A = Y.P
```

```
[4] SELECT * FROM X  
UNION ALL  
SELECT * FROM Y;
```

```
[5] SELECT * FROM X  
UNION  
SELECT * FROM Y;
```

```
[6] SELECT *  
FROM X LEFT JOIN Y  
ON X.A = Y.P
```

```
UNION
```

```
SELECT *  
FROM X RIGHT JOIN Y  
ON X.A = Y.P;
```

```
[7] SELECT * FROM X CROSS JOIN Y;
```

```
[8] SELECT * FROM  
X AS T1 JOIN X AS T2  
WHERE T1.A = T2.A
```