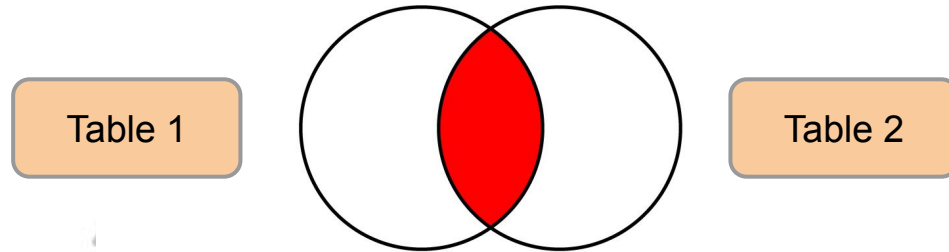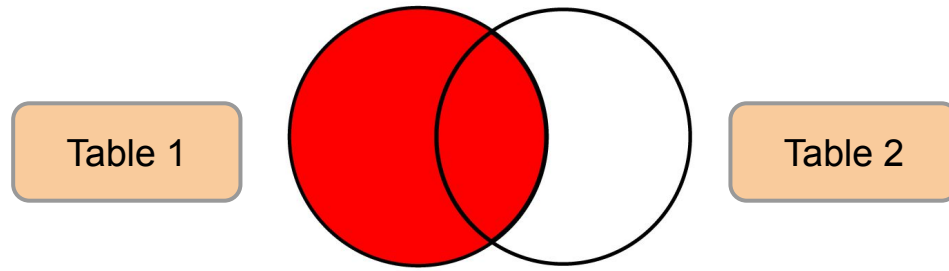# Joins in SQL

Inner Join

Left Join

Right Join

Full Outer Join

Cross Join

Self Join

Thank You!
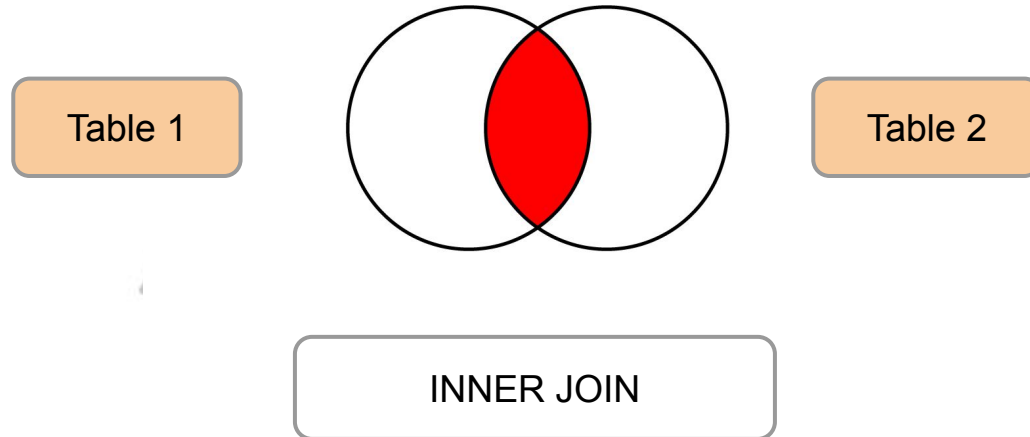
Inner Join

Table 1

Table 2

INNER JOIN

Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2

A	X	Y
A100	1	1
A400	3	0
A200	3	2
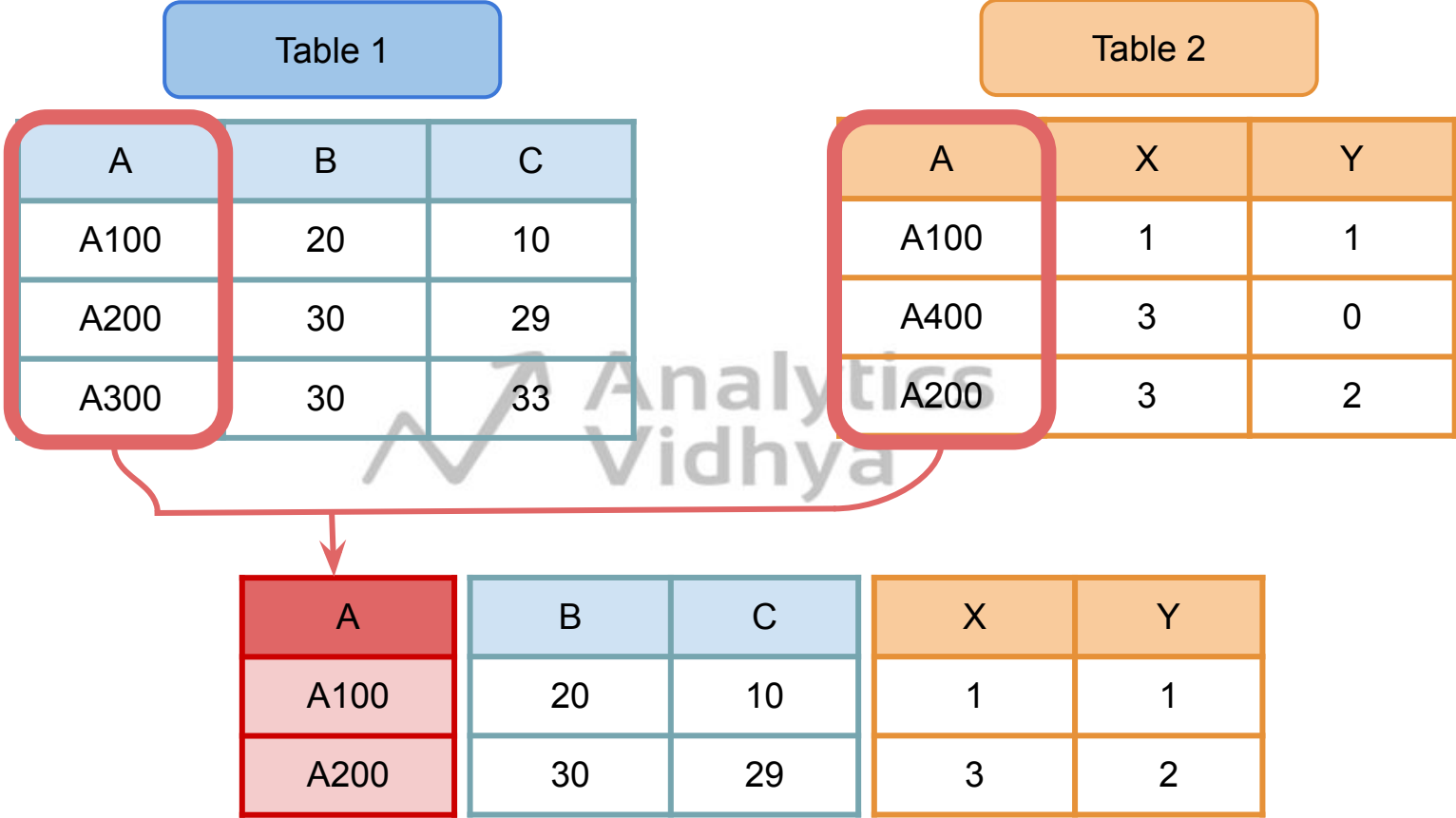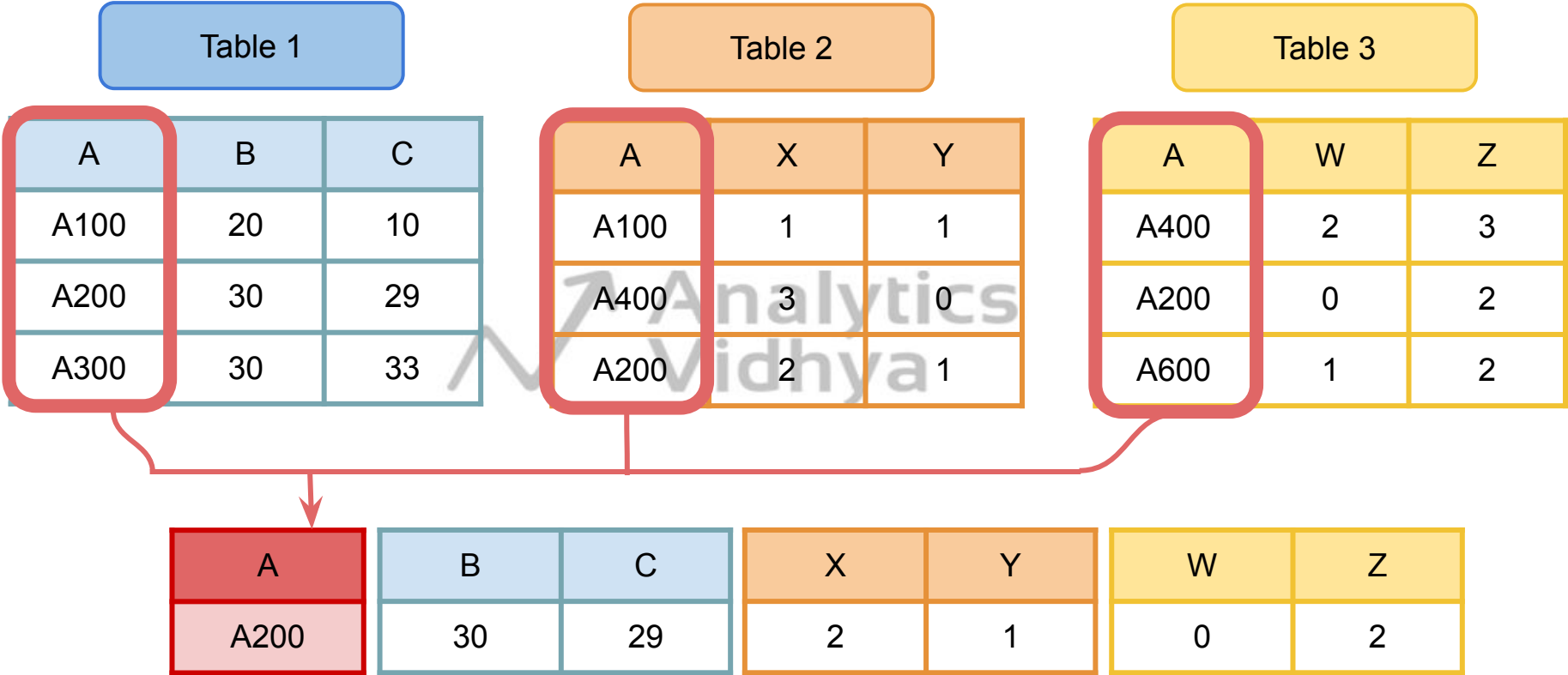
INNER JOIN

Table 1		
A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2		
A	X	Y
A100	1	1
A400	3	0
A200	3	2

INNER JOIN

SELECT	[Table Name] . [Column Name]	FROM	TABLE 1	INNER JOIN

TABLE 2	ON	Table 1 . A = Table 2. A

Thank You!

Left Join

Table 1

Table 2

INNER JOIN

Table 1

Table 2

LEFT JOIN

LEFT OUTER JOIN

Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2

A	X	Y
A100	1	1
A400	3	0
A200	3	2

LEFT JOIN

Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2

A	X	Y
A100	1	1
A400	3	0
A200	3	2

A	B	C	X	Y
A100	20	10	1	1
A200	30	29	3	2
A300	30	33	NULL	NULL

Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2

A	X	Y
A100	1	1
A400	3	0
A200	3	2

LEFT JOIN

SELECT	[Table Name] . [Column Name]	FROM	TABLE 1	LEFT JOIN

TABLE 2	ON	Table 1 . A = Table 2. A

Thank You!

Right Join
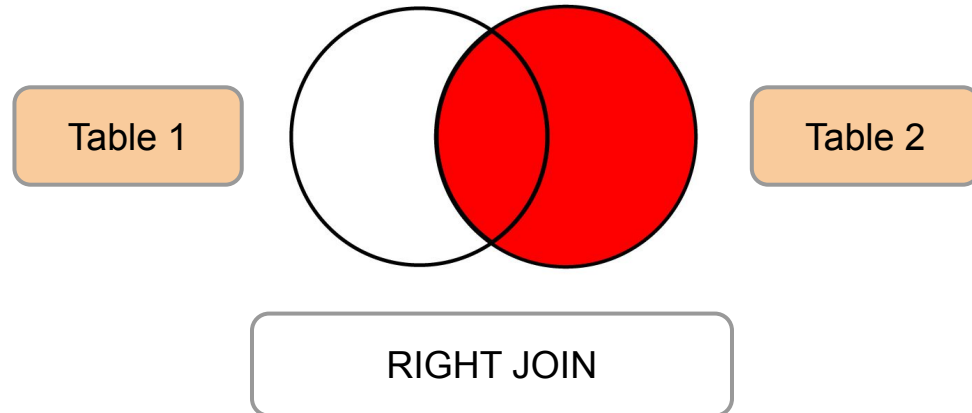
Table 1

Table 2

RIGHT JOIN

Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2

A	X	Y
A100	1	1
A400	3	0
A200	3	2

RIGHT JOIN

Table 1		
A	**B**	**C**
A100	20	10
A200	30	29
A300	30	33

Table 2		
A	**X**	**Y**
A100	1	1
A400	3	0
A200	3	2

A	B	C	X	Y
A100	20	10	1	1
A400	NULL	NULL	3	0
A200	30	29	3	2

Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33
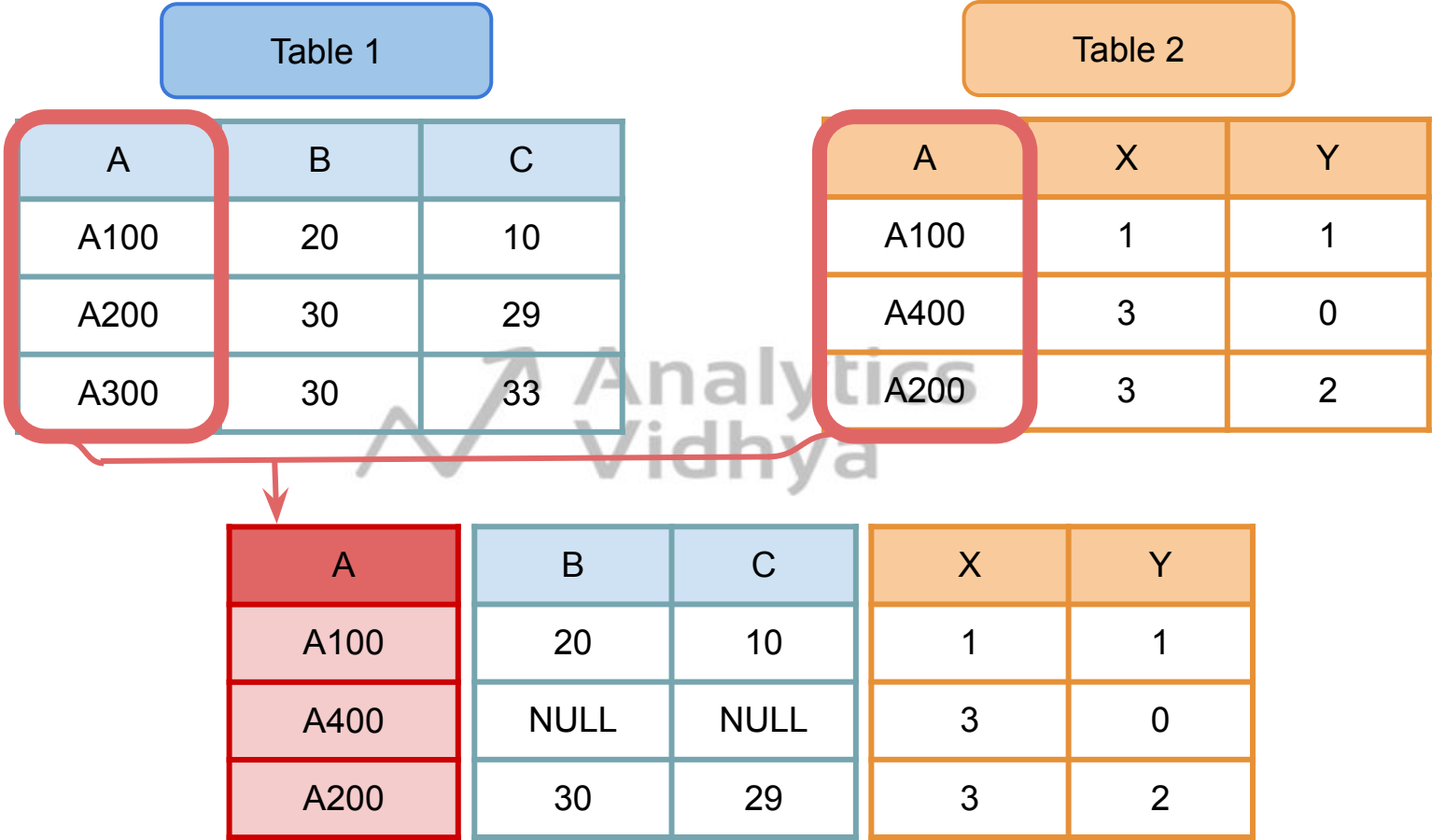
Table 2

A	X	Y
A100	1	1
A400	3	0
A200	2	1

Table 3

A	W	Z
A400	2	3
A200	0	2
A600	1	2
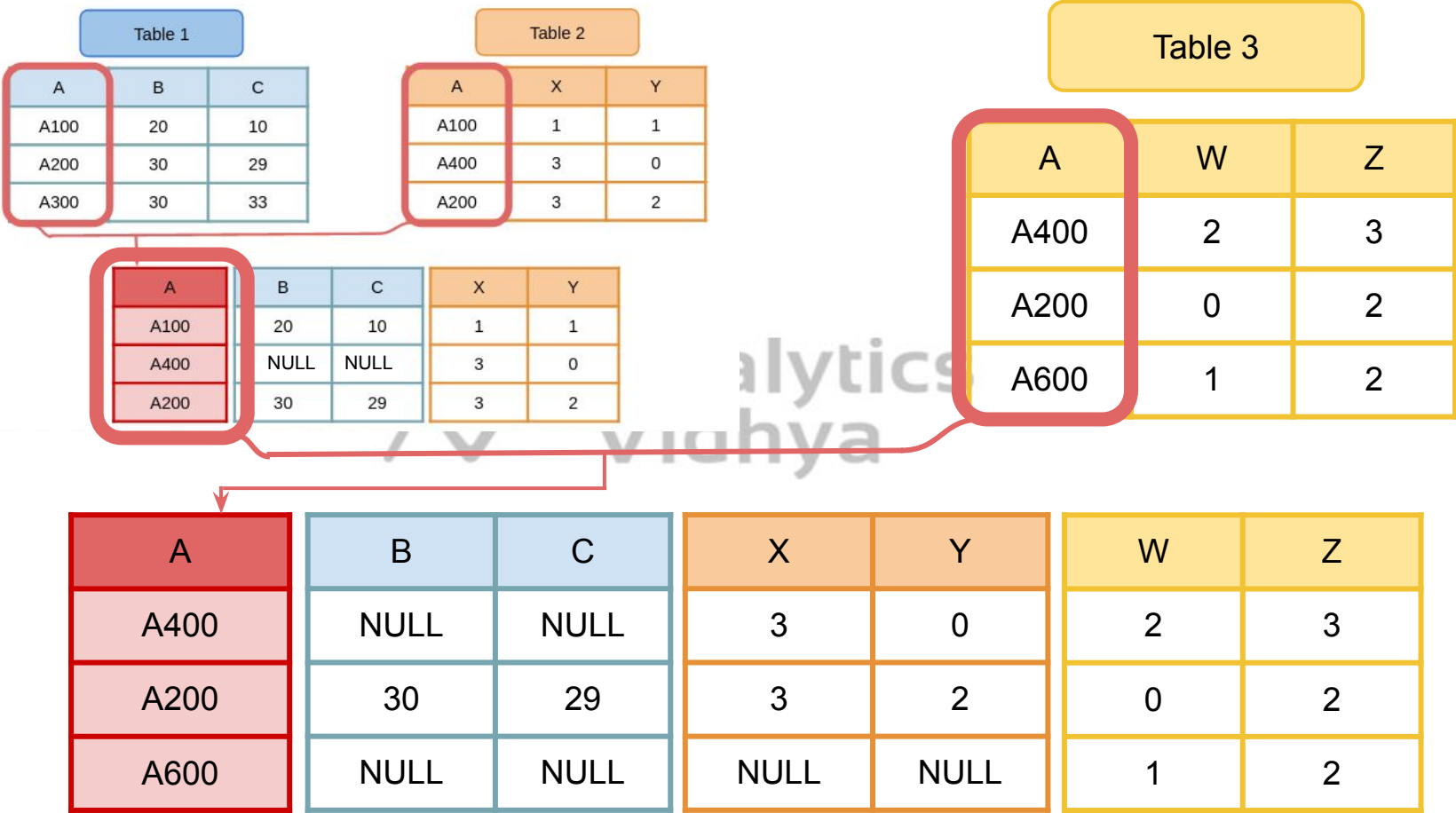
Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2

A	X	Y
A100	1	1
A400	3	0
A200	3	2

RIGHT JOIN

SELECT	[Table Name] . [Column Name]	FROM	TABLE 1	RIGHT JOIN

TABLE 2	ON	Table 1 . A = Table 2. A

Thank You!

Full Outer Join
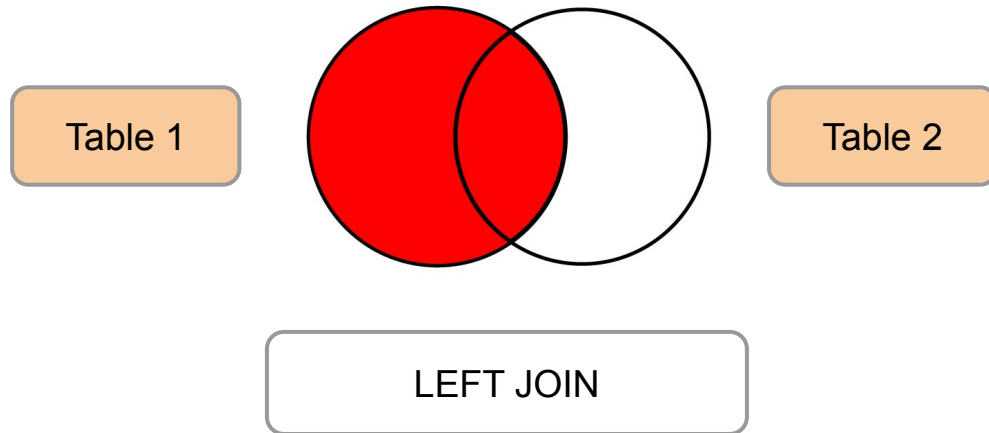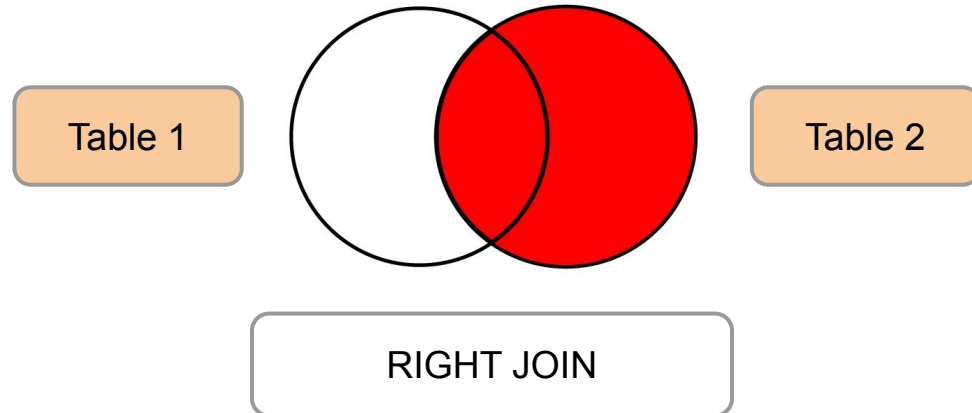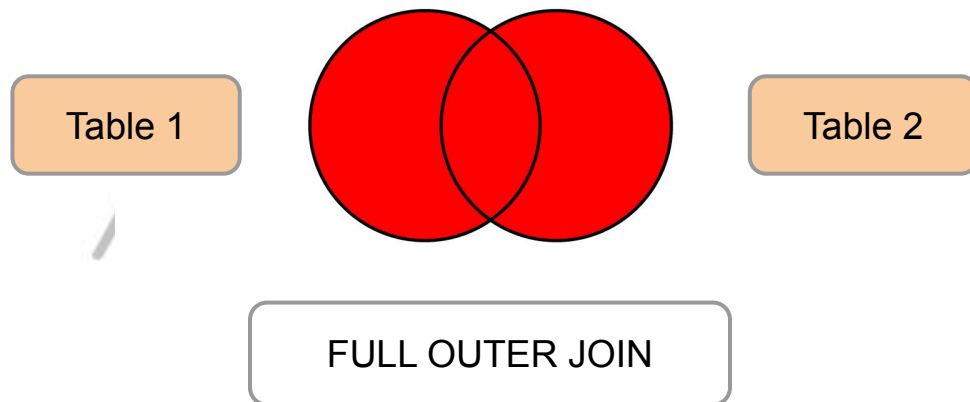
Table 1

Table 2

RIGHT JOIN

Table 1

Table 2

FULL OUTER JOIN

Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2

A	X	Y
A100	1	1
A400	3	0
A200	3	2

FULL OUTER JOIN

Table 1		
A	B	C
A100	20	10
A200	30	29
A300	30	33

Table 2		
A	X	Y
A100	1	1
A400	3	0
A200	3	2

A	B	C	X	Y
A100	20	10	1	1
A200	30	29	3	2
A300	30	33	NULL	NULL
A400	NULL	NULL	3	0

Analytics Vidhya

Table 1

A	B	C
A100	20	10
A200	30	29
A300	30	33
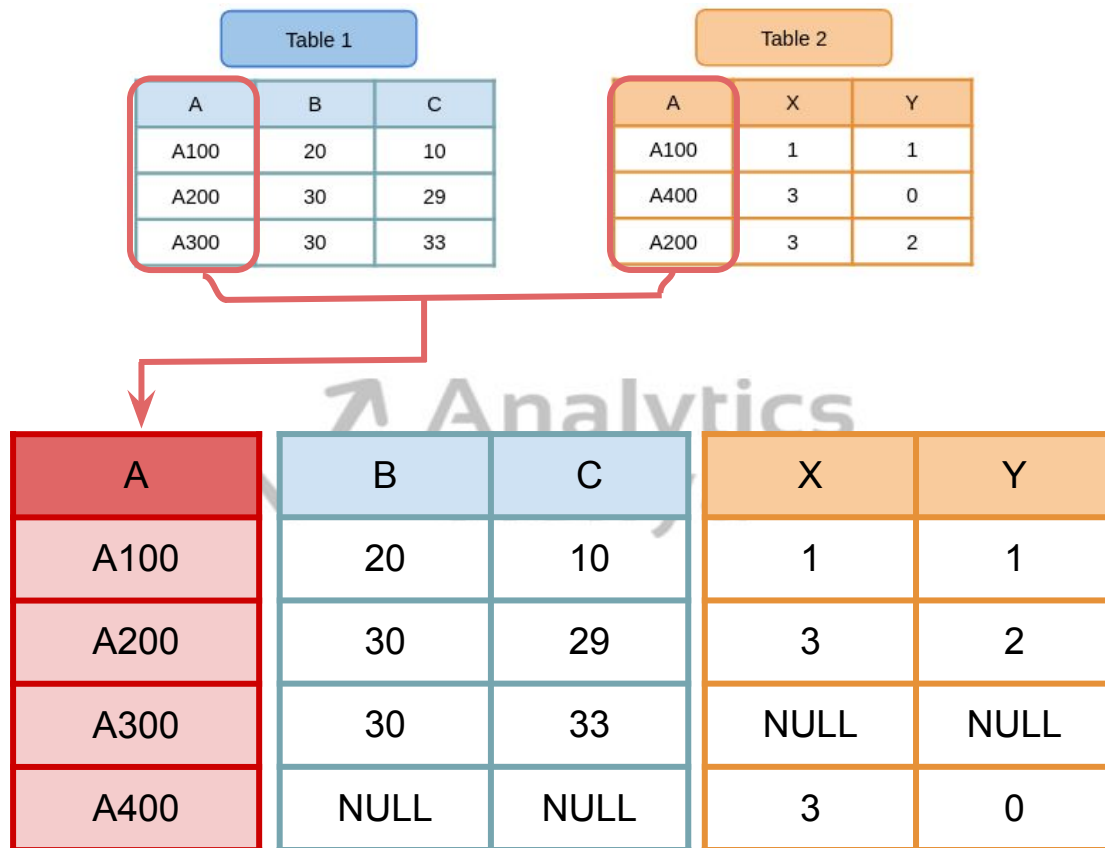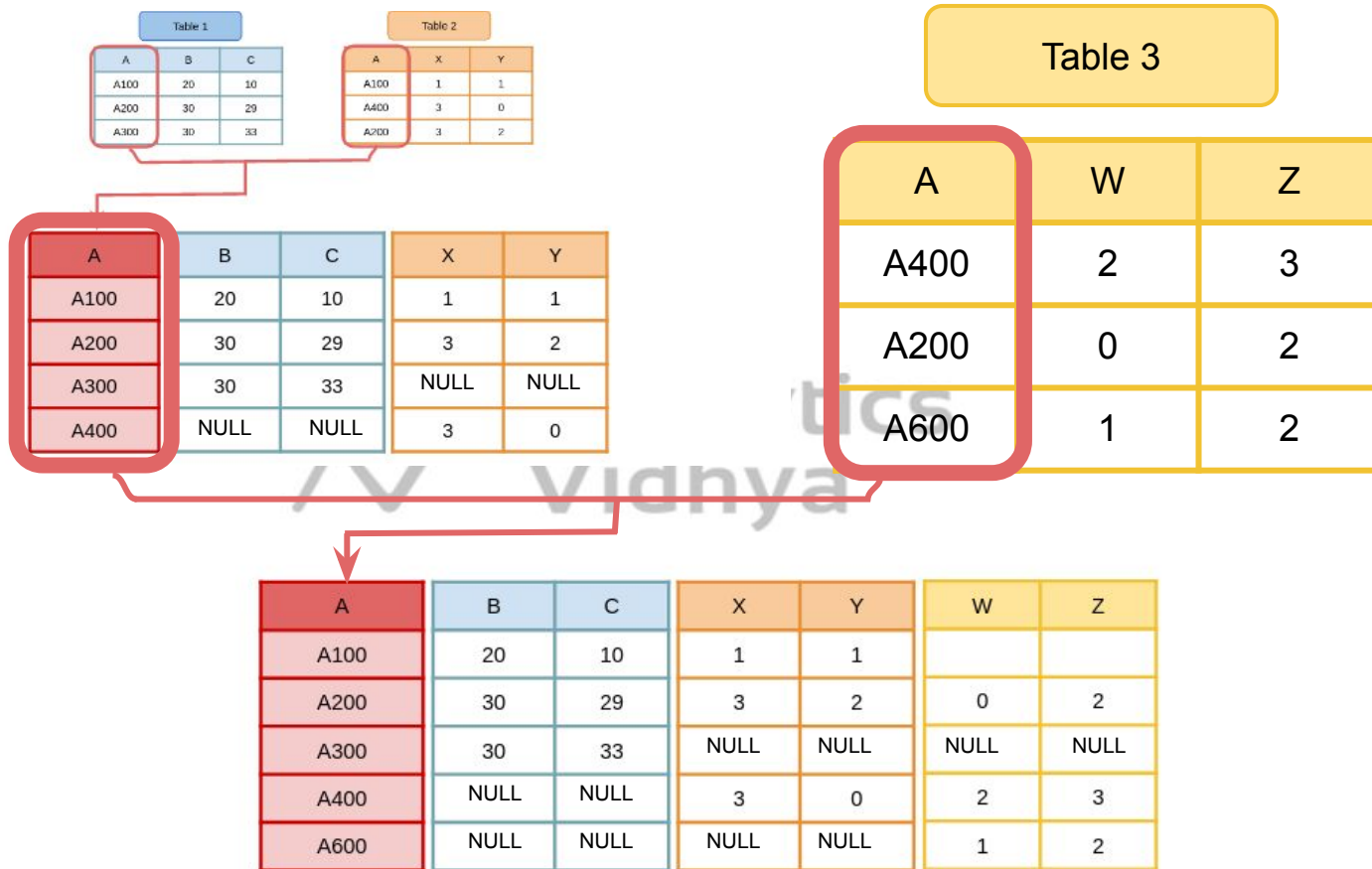
Table 2

A	X	Y
A100	1	1
A400	3	0
A200	3	2

FULL OUTER JOIN

| SELECT | Table 1.A, Table 2.B | FROM | TABLE 1 | LEFT JOIN |

| TABLE 2 | ON | Table 1 . A = Table 2. A |

| UNION |

| SELECT | Table 1.A, Table 2.B | FROM | TABLE 1 | RIGHT JOIN |

| TABLE 2 | ON | Table 1 . A = Table 2. A |

Thank You!

Cross Join
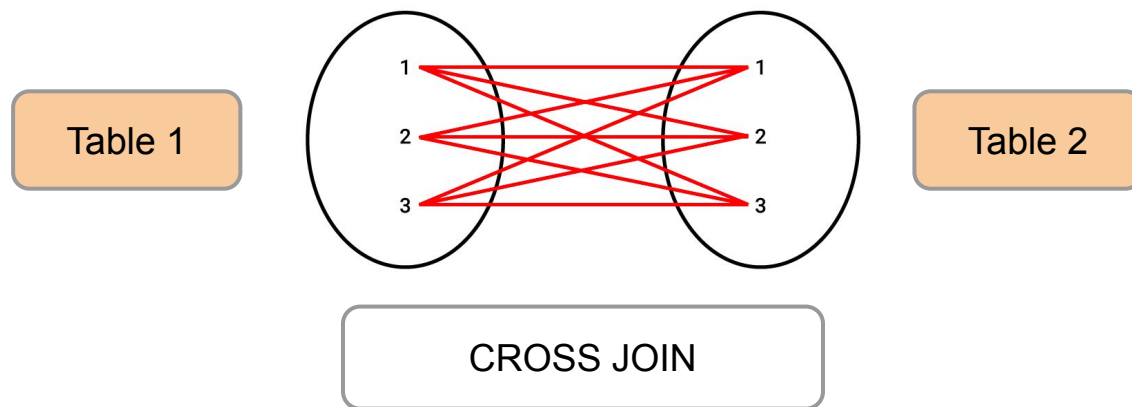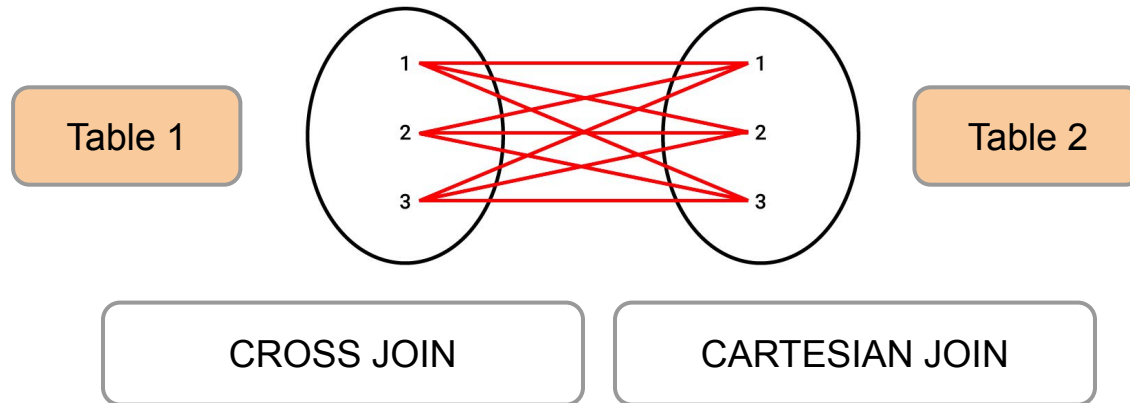
CROSS JOIN

Table 1

Table 2

Table 1

Table 2

CROSS JOIN

CARTESIAN JOIN

Table 1		
A	B	C
A100	20	10
A200	30	29
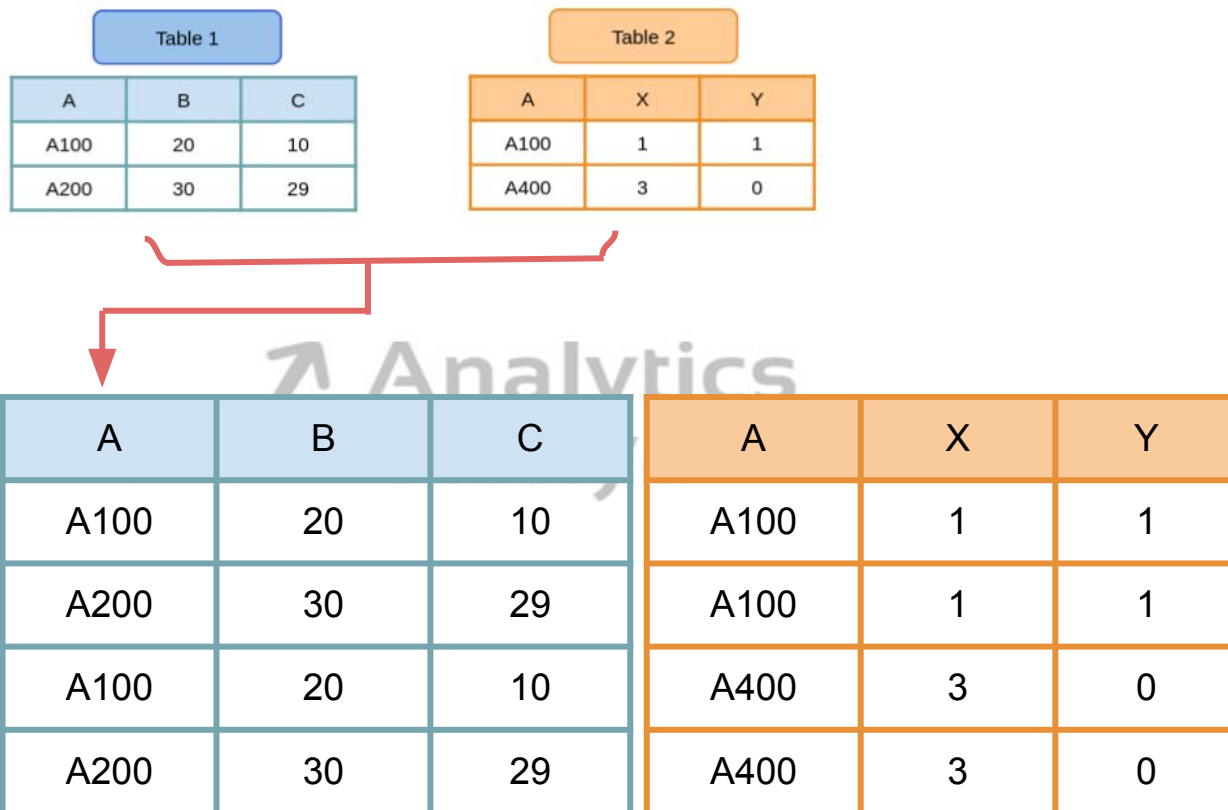
Table 2		
A	X	Y
A100	1	1
A400	3	0

CROSS JOIN

Table 1

A	B	C
A100	20	10
A200	30	29

Table 2

A	X	Y
A100	1	1
A400	3	0

CROSS JOIN

SELECT	[Table Name] . [Column Name]	FROM	TABLE 1	CROSS JOIN

TABLE 2

Thank You!

Self Join
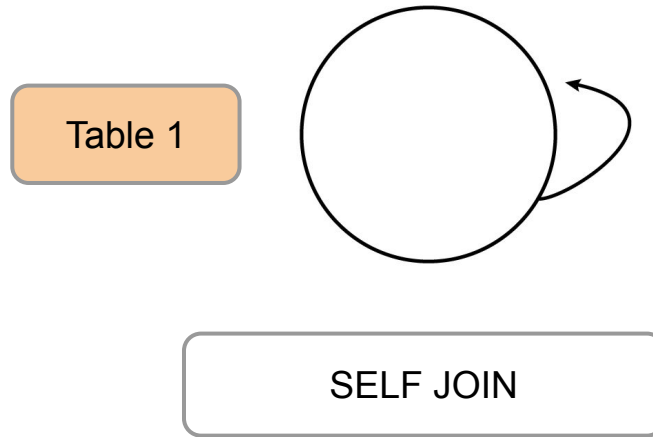
Table 1

Id	Name	Salary	Manager_id
1002	Arjun	100	1212
1324	Shyam	200	1212
1212	Kiran	300	NULL
2231	Simran	200	1324

SELF JOIN

Table 1

Id	Name	Salary	Manager_id
1002	Arjun	100	1212
1324	Shyam	200	1212
1212	Kiran	300	NULL
2231	Simran	200	1324

Name	Manager
Arjun	Kiran

Table 1

Id	Name	Salary	Manager_id
1002	Arjun	100	1212
1324	Shyam	200	1212
1212	Kiran	300	NULL
2231	Simran	200	1324

Name	Manager
Arjun	Kiran
Shyam	Kiran

Table 1

Id	Name	Salary	Manager_id
1002	Arjun	100	1212
1324	Shyam	200	1212
1212	Kiran	300	NULL
2231	Simran	200	1324

Name	Manager
Arjun	Kiran
Shyam	Kiran
Kiran	NULL

Table 1

Id	Name	Salary	Manager_id
1002	Arjun	100	1212
1324	Shyam	200	1212
1212	Kiran	300	NULL
2231	Simran	200	1324

Name	Manager
Arjun	Kiran
Shyam	Kiran
Kiran	NULL
Simran	Shyam

Table 1			
Id	Name	Salary	Manager_id
1002	Arjun	100	1212
1324	Shyam	200	1212
1212	Kiran	300	NULL
2231	Simran	200	1324

SELECT	[Table Name] . [Column Name]	FROM
TABLE 1	T1	,	TABLE 1	T2
WHERE	Condition	

Thank You!