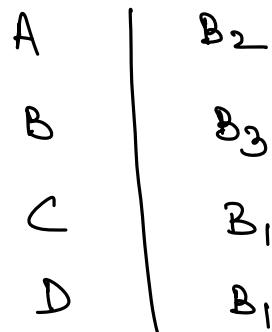


JOINS.

Students		
id	name	batch_id
1	A	102
2	B	103
3	C	101
4	D	101
5	E	NULL

batches	
id	name
101	B ₁
102	B ₂
103	B ₃

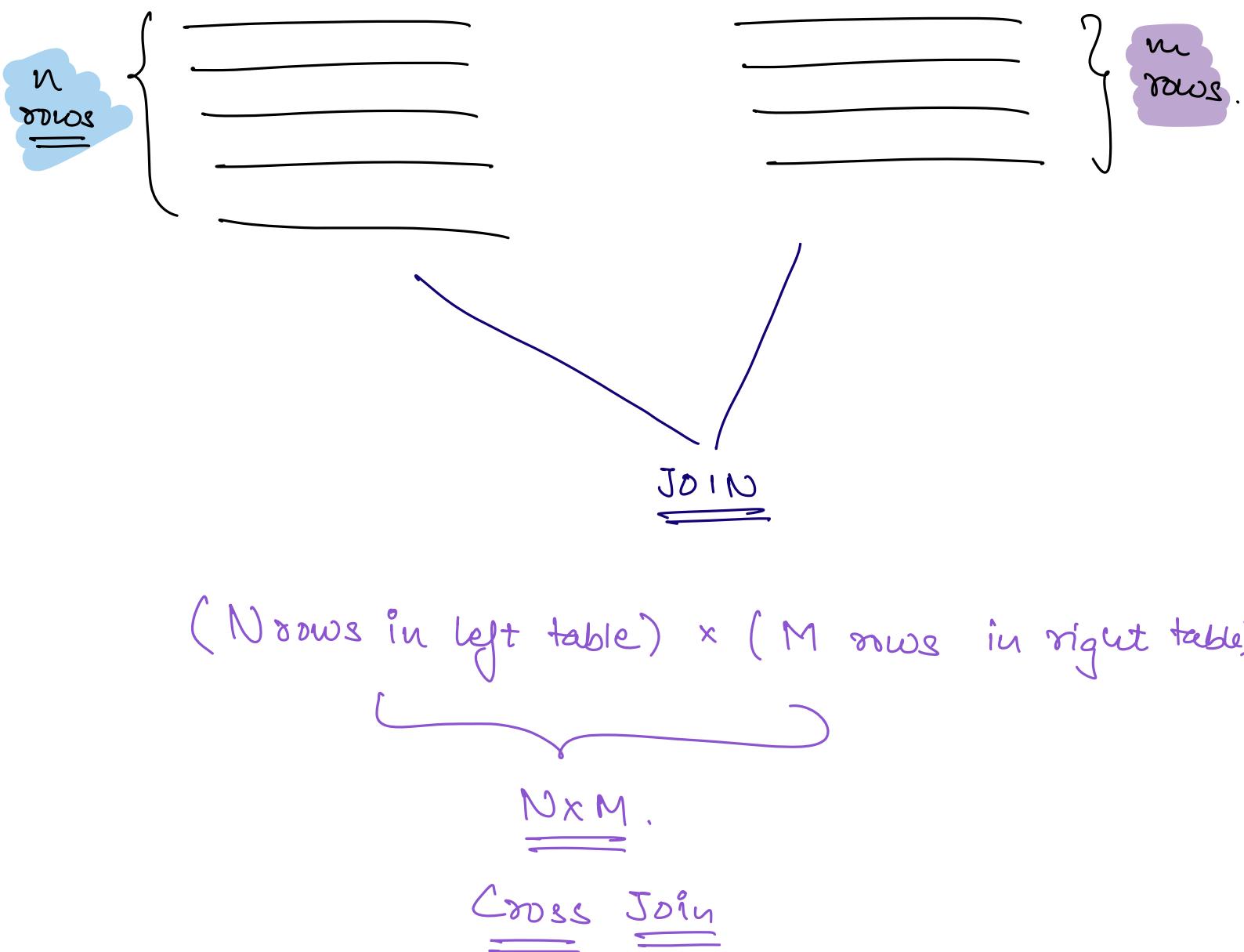
Q: Print the name of students & their batch names.



id	name	batch_id	id	batch_name
1	A	102	101	B ₁
1	A	102	102	B ₂
1	A	102	103	B ₃
2	B	103	101	B ₁
2	B	103	102	B ₂
2	B	103	103	B ₃

Table-1

Table-2



Select *
from Students, batches;

\Rightarrow Cross Join

<i>id</i>	<i>name</i>	<i>batch_id</i>	<i>id</i>	<i>batch_name</i>
1	A	102	101	B ₁ X
1	A	102	102	B ₂ ✓
1	A	102	103	B ₃ X
2	B	103	101	B ₁ X
2	B	103	102	B ₂ X
2	B	103	103	B ₃ ✓

Select *

from Students

Join batches

ON Students.batch_id = batches.id ;

<i>id</i>	<i>name</i>	<i>batch_id</i>	<i>id</i>	<i>batch_name</i>
1	A	102	102	B ₂
2	B	103	103	B ₃
3	C	101	101	B ₁
4	D	101	101	B ₁

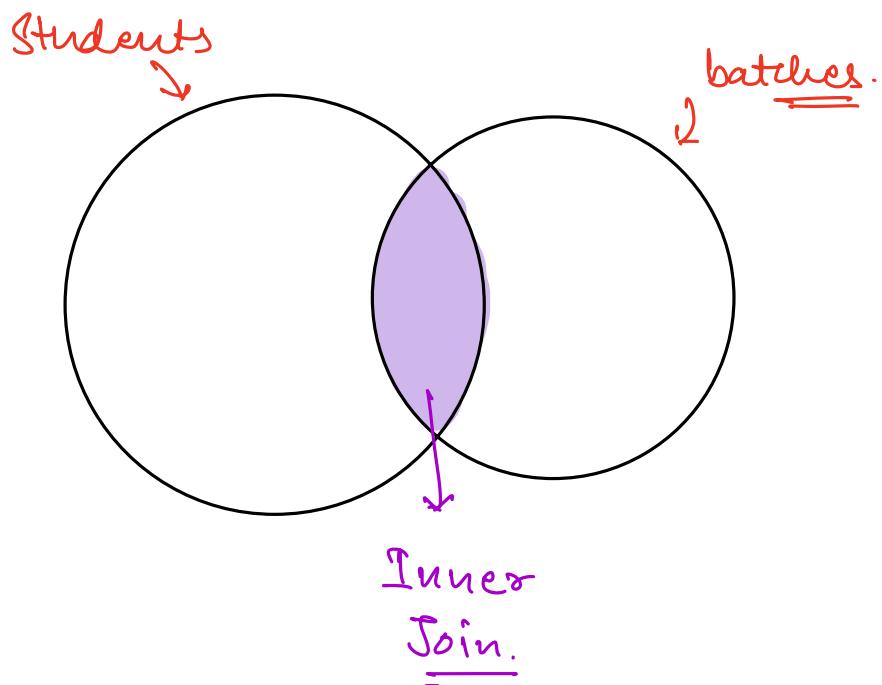
Select *

from Students s

Join batches b

ON s.batch_id = b.id;

INNER JOIN



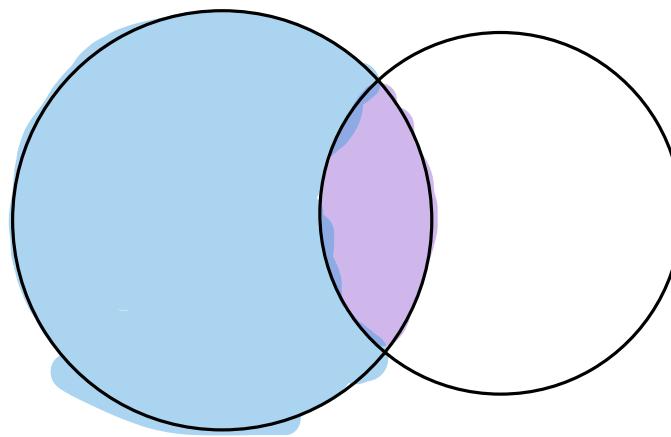
Students			batches		
<u>id</u>	<u>name</u>	<u>batch_id</u>	<u>id</u>	<u>name</u>	
1	A	102	101	B ₁	
2	B	103	102	B ₂	
3	C	101	103	B ₃	
4	D	101			
5	E	NULL			

OUTER JOIN

LEFT JOIN RIGHT JOIN

FULL OUTER JOIN (Not in MySQL)

⇒
LEFT
JOIN

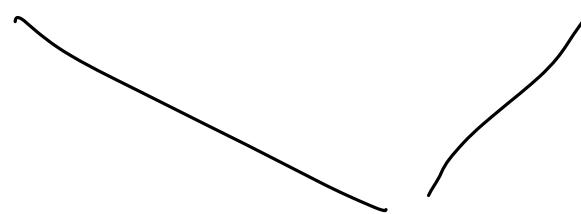


Students

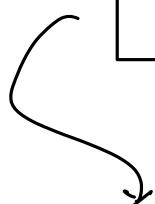
<u>id</u>	<u>name</u>	<u>batch_id</u>
1	A	102
2	B	103
3	C	101
4	D	101
5	E	NULL

batches

<u>id</u>	<u>name</u>
101	B ₁
102	B ₂
103	B ₃



<u>id</u>	<u>name</u>	<u>batch_id</u>	<u>id</u>	<u>batch_name</u>
1	A	102	102	B ₂
2	B	103	103	B ₃
3	C	101	101	B ₁
4	D	101	101	B ₁
5	E	NULL	NULL	NULL

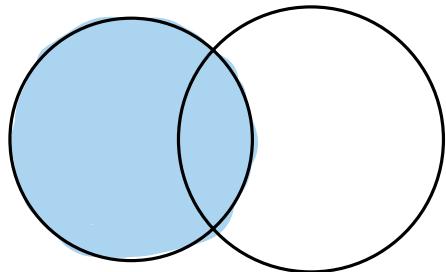


Select *

from Students s

LEFT JOIN batches b

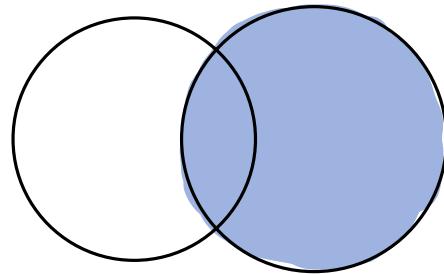
ON s.batch_id = b.id;



LEFT JOIN

LEFT OUTER

JOIN



RIGHT JOIN

RIGHT OUTER

JOIN

RIGHT JOIN

Students

id	name	batch-id
1	A	102
2	B	103
3	C	101
4	D	101

batches

id	name
101	B ₁
102	B ₂
103	B ₃
104	B ₄

id	name	batch-id	id	batch-name
1	A	102	102	B ₂
2	B	103	103	B ₃
3	C	101	101	B ₁
4	D	101	101	B ₁
NULL	NULL	NULL	104	B ₄

Select *

from Students s

RIGHT JOIN batches b

ON s.batch-id = b.id;

⇒

Students

SELF
JOIN

id	name	buddy-id
1	Anjum	5
2	Mukta	4
3	Hardik	1
4	Chetan	6
5	Aditya	2
6	Saurabh	3

student-id

Q: Write a query to get student name & their buddy name.

Anjum → Aditya

Mukta → Chetan

Hardik → Anjum



Students \rightarrow S1

Students \rightarrow S2

id	name	buddy-id
1	Anjum	5
2	Mukta	4
3	Hardik	1
4	Chetan	6
5	Aditya	2
6	Saurabh	3

id	name	buddy-id
1	Anjum	5
2	Mukta	4
3	Hardik	1
4	Chetan	6
5	Aditya	2
6	Saurabh	3

Select S1.name as student, S2.name as buddy
 from Students S1
 join Students S2
 ON S1.buddy-id = S2.id

employee

emp-id	name	manager-id
101	Neeraj	200
102	Saurabh	190
190	Anjum	500
200	Harsh	300
300	Mukta	700

Q: Get the employee name & their manager's name.

employee e1

emp-id	name	managerid
101	Neeraj	200
102	Saurabh	190
190	Anjum	500
200	Harsh	300
300	Mukta	400

employee e2

emp-id	name	managerid
101	Neeraj	200
102	Saurabh	190
190	Anjum	500
200	Harsh	300
300	Mukta	400

Select e1.name as emp-name, e2.name as manager-name
from employee e1

join employee e2

ON e1.managerid = e2.empid

```
use sakila;

select * from film;

select * from language;

-- foregin key in film table -- language (language_id → language_id)

-- Q: Get the language of all the films;
select f.title, l.name
from film f
join language l
ON f.language_id = l.language_id;

-- Q: Display the first_name, last_name, email of customers who have rented a film.
-- JOIN customer and rental table on customer_id
select c.first_name, c.last_name, c.email
from customer c
join rental r
ON c.customer_id = r.customer_id;

-- Get the count of customers who have rented a film;
select COUNT(*) -- count the number of rows.
from customer c
join rental r
ON c.customer_id = r.customer_id;

-- Get all the unique customers who have a rented movie
select DISTINCT c.first_name, c.last_name, c.email
from customer c
join rental r
ON c.customer_id = r.customer_id;

select * from customer;
select * from payment;

-- Q: List all the customers and their associated payment amounts (if any);
-- Customer | Payment
select c.customer_id, c.first_name, c.last_name, p.amount
from customer c
left join payment p
on c.customer_id = p.customer_id;
```