SQL V - Joins

2NF
3NF
→ Functional Dep.

Batch ID → Batch Name

1
2
3

A
B
C

2NF → Partial

→ Composite PK

SID	BID	BNAME

3 N F → Transitive

SID → BID

BID → BNAME

DDL

Definition

CREATE

DATABASE

TABLE

ALTER

DROP

DML

Manipulate

Insert

Select

Semantic

→ DQL → Select

↓

Query

DCL → Control

→ GRANT

→ REVOKE

TCL

→ Transaction

→ COMMIT

→ ROLLBACK

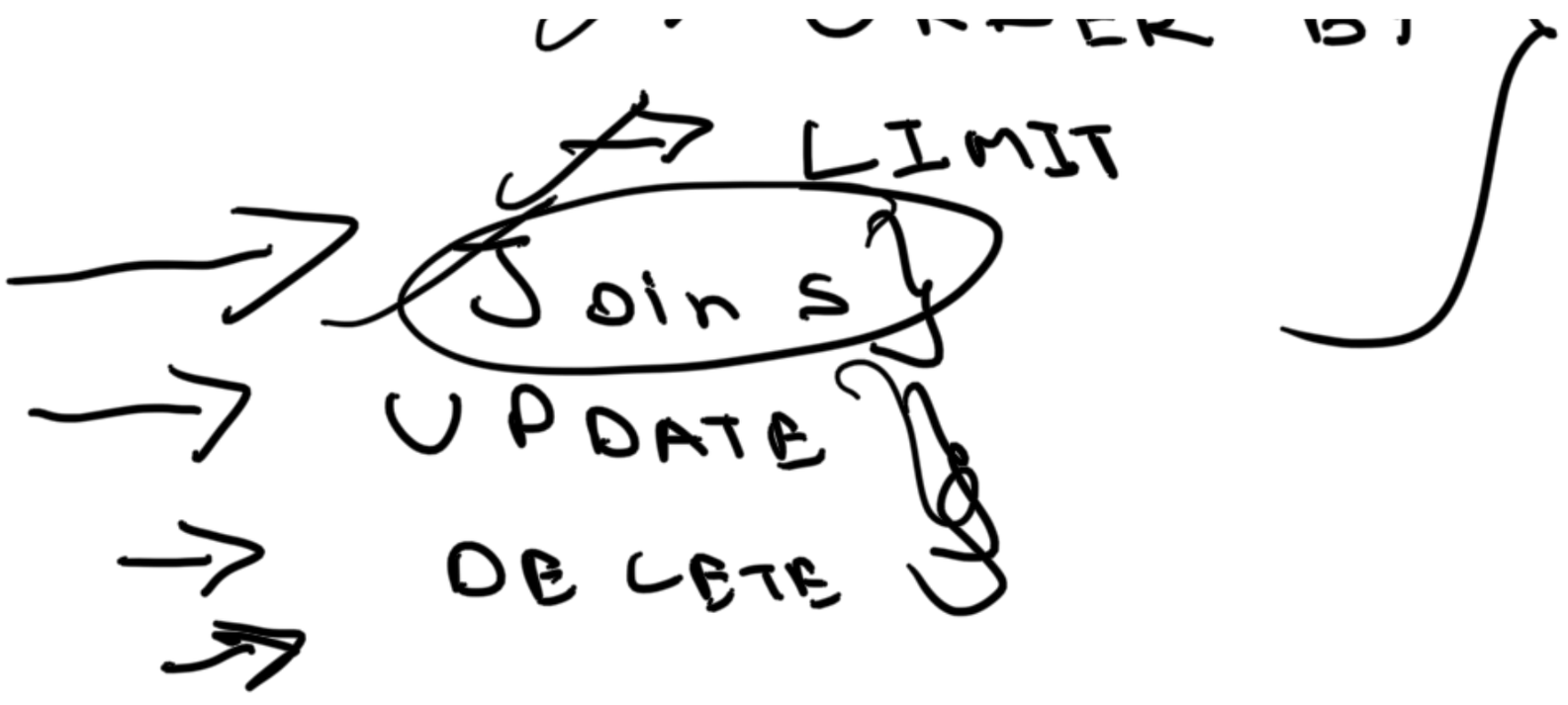
Agenda

→ ~~SELECT~~

→ NOT NULL

→ ORDER BY

CR



Joins

Get all the students & their batch names

1. Get all the students & their batch ids
2. Get the batches using batch ids

IN

SID | NAME | BID | BNAME

↳ Fast - 2x

↳ Disadvantage

↳ Normalised

① Single Query

② Normalised

Joins

S B

FK → Indexing

Joins → merging two tables

STUDENTS

JOIN

BATCHES

2	B	1	A
3	C	2	B

Inner Join

↳ Combines the rows where both match the condition

For every student
For every batch
if join condition is not

1	A
1	A
2	B

1	A
2	B
1	A

For row in A

For row in B

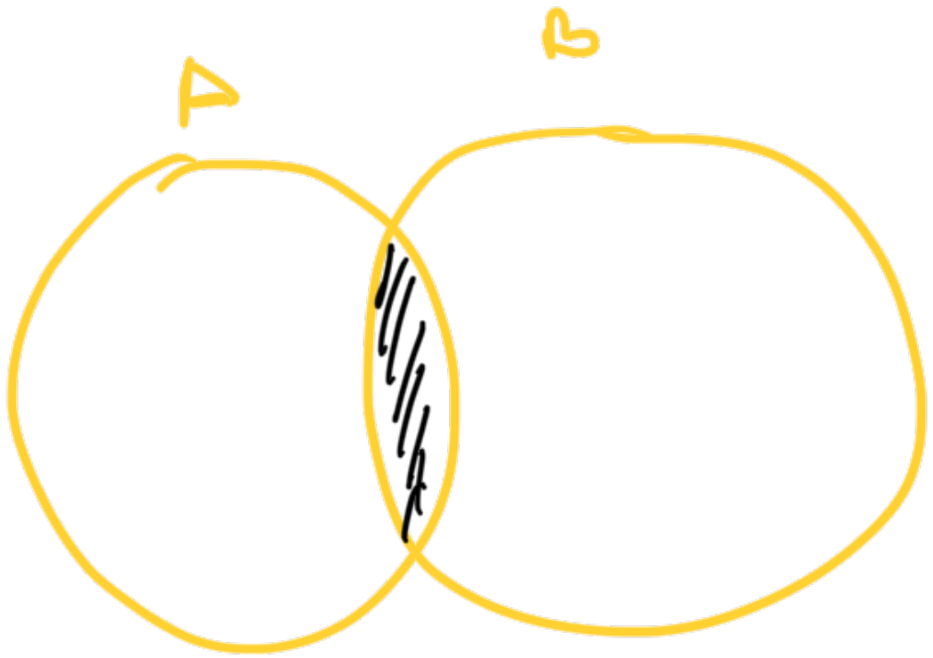
if condition is met

ADD to RESULT

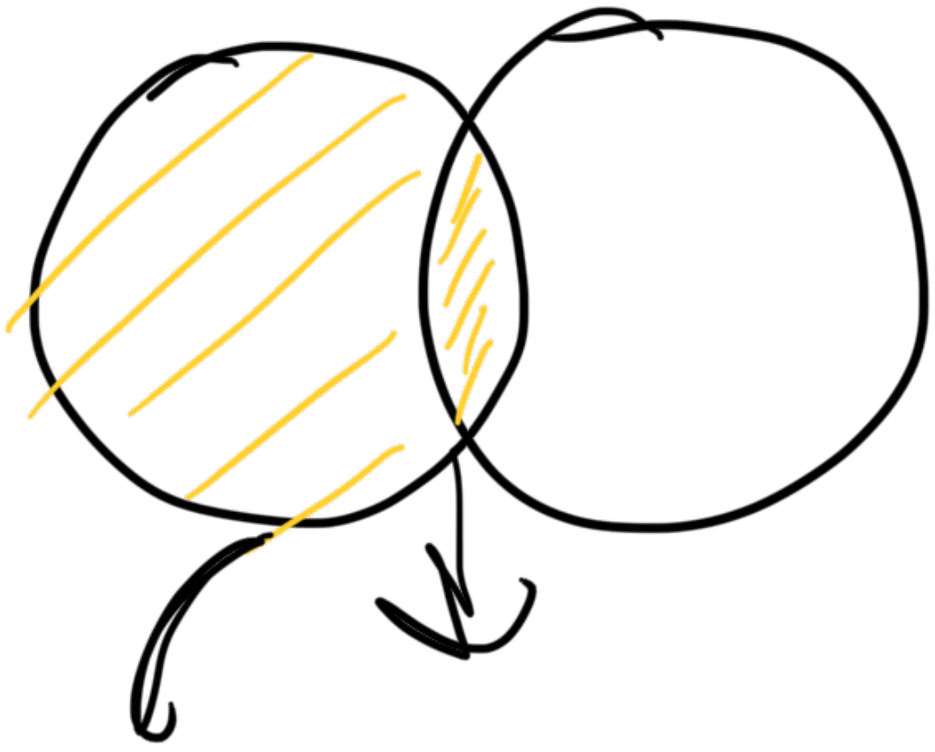
+

ADD ALL ROWS FROM

LEFT

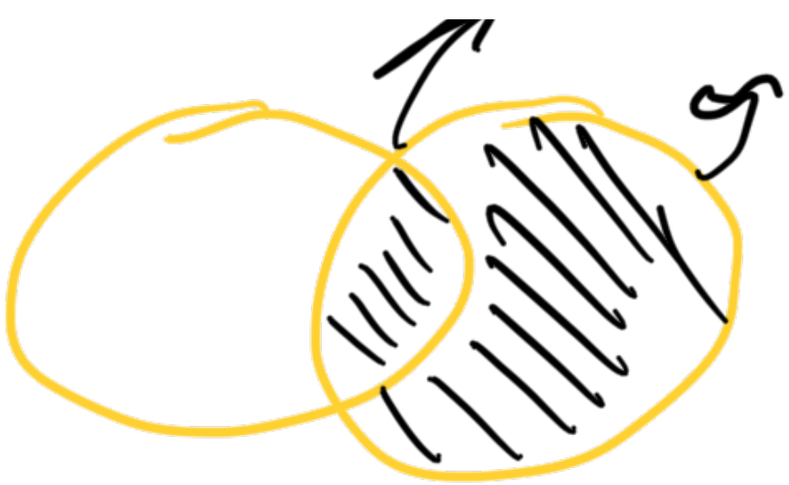


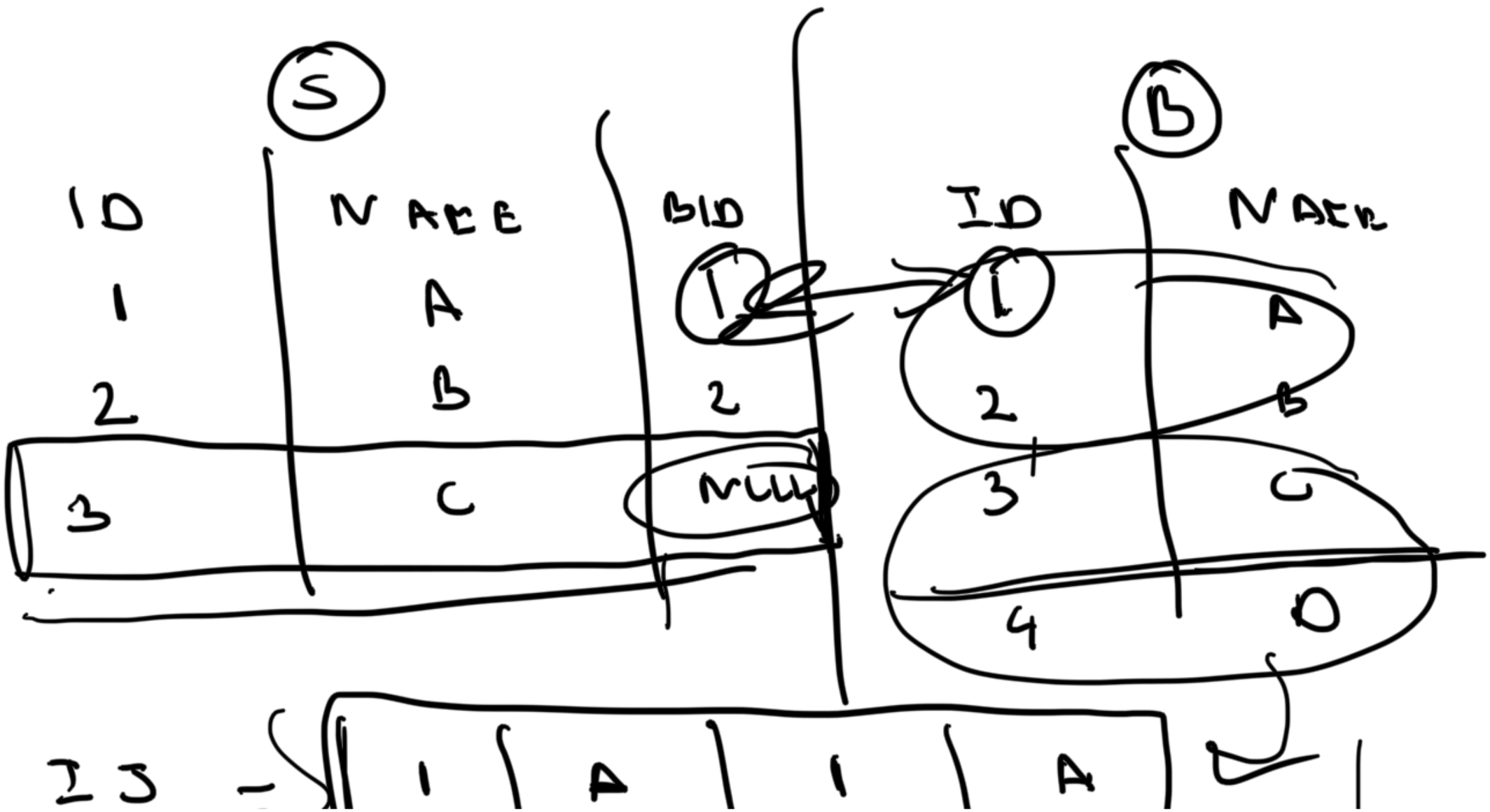
→ Inner Join

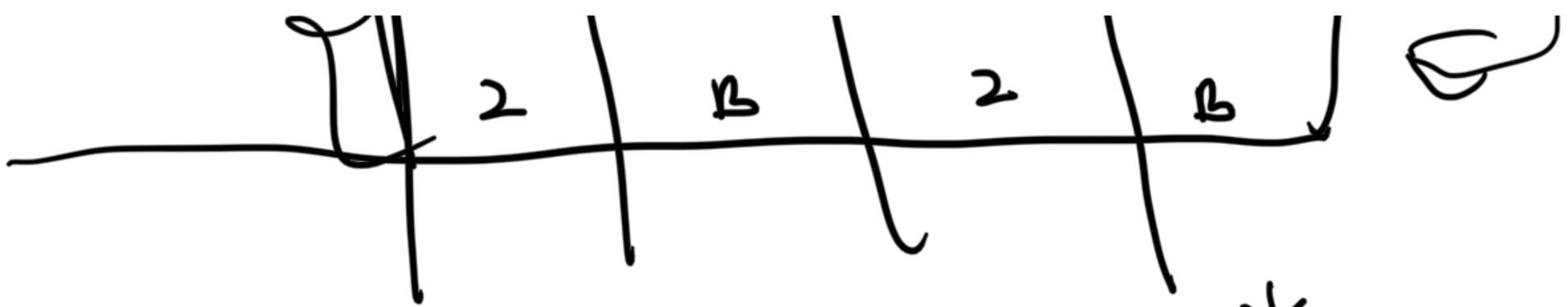


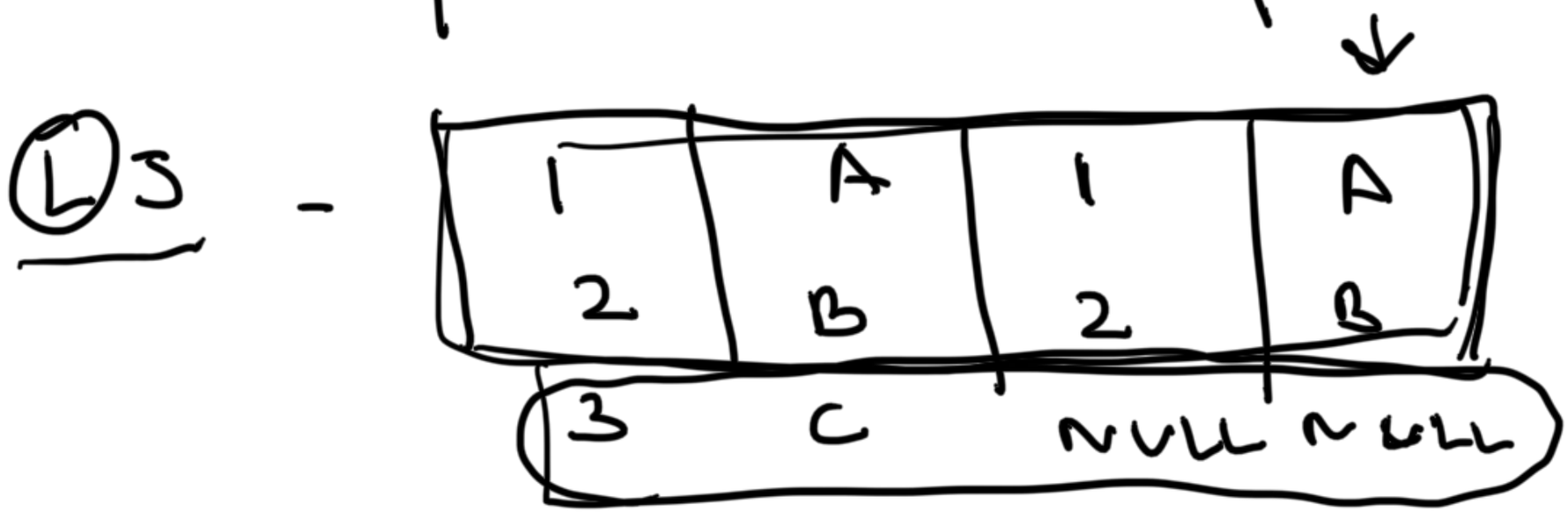
→ LEFT O. Join

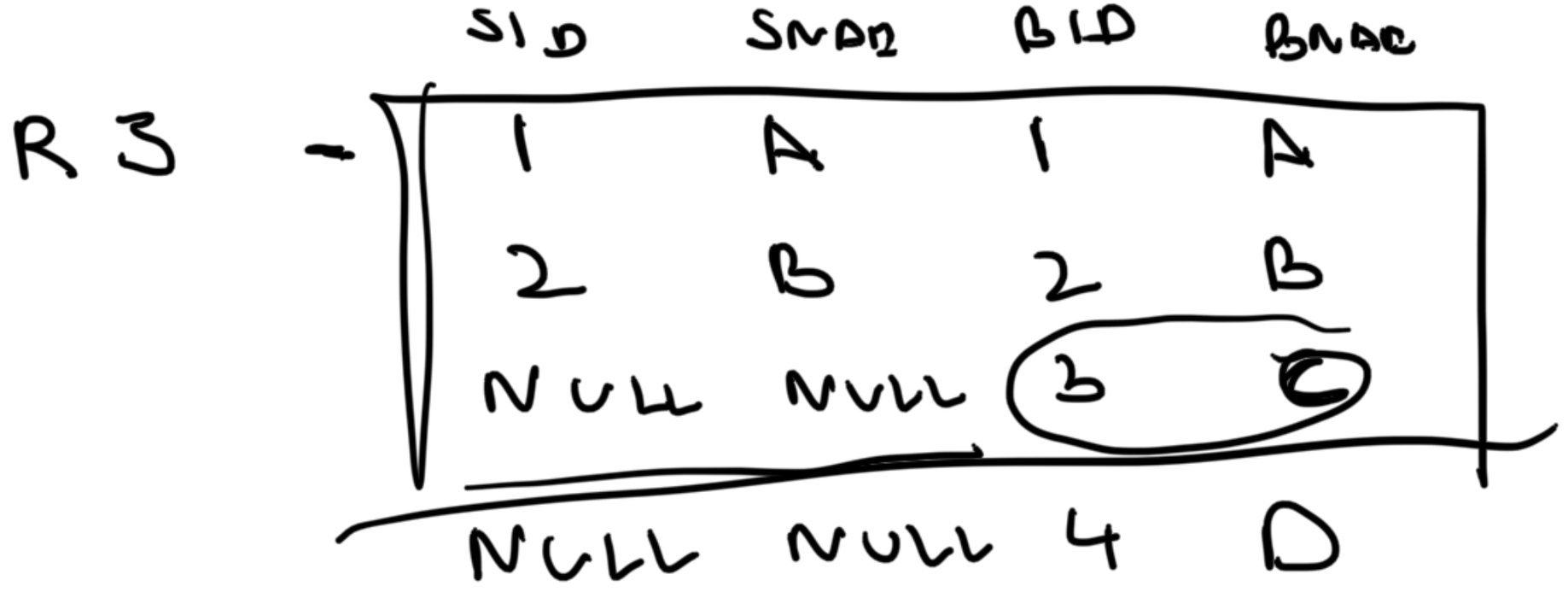
Right Outer Join




S
ID
NAME
1
A
2
B
3
C
BID
1
2
NULL
B
ID
NAME
1
A
2
B
3
C
4
D
IS
1
A
1
A


2
B
2
B


LS
1
A
1
A
2
B
2
B
3
C
NULL
NULL


RS
SID
SNAME
BID
BNAME
1
A
1
A
2
B
2
B
NULL
NULL
3
C
NULL
NULL
4
D

B LS I

$= I R S B$