Logical Design → Conceptual schema → Relational Data models

"or only ONE book is issued to a Student".

Library Management:

Student

St-ID   St-Name   Phone number

Books

B-ID   B-Name   Publisher   YOP

I. Domain Constraint ✓
II. NULL constraints ✓
III. Key Constraints

Issue

Issue-ID   B-ID   St-ID   DOI

| | | I | 22 |

(Issue-ID,   B-ID,   (St-ID,   DOI))
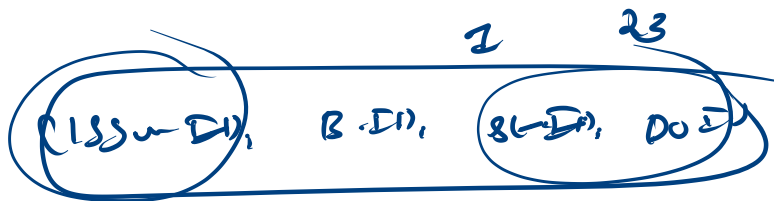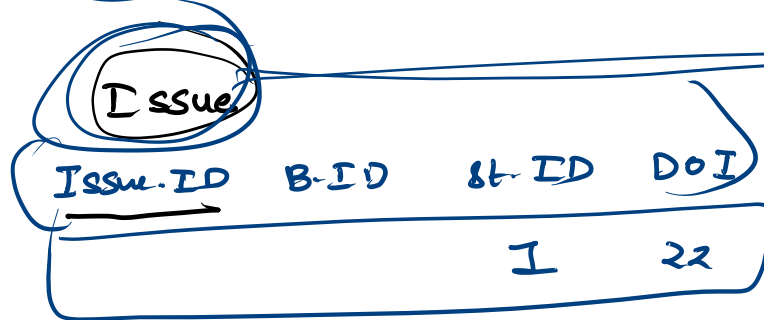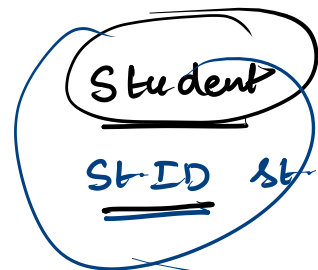
3 Keys:
I. Super key
II. Candidate key
III. Primary Key
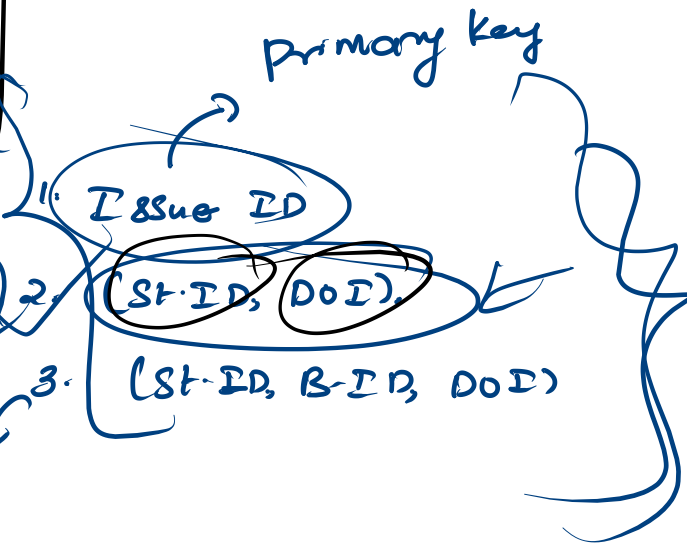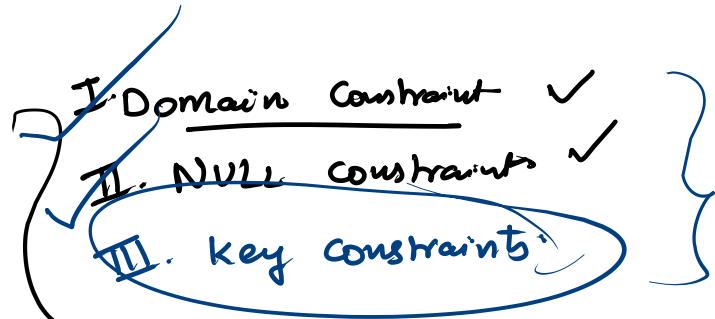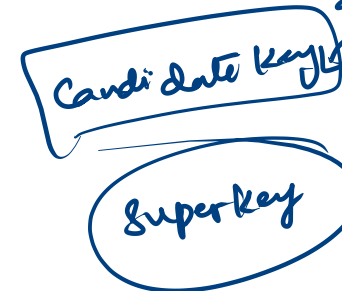
Primary Key

1. Issue ID

Candidate Key   2. (St-ID, DOI)

3. (St-ID, B-ID, DOI)

Super key

Foreign key 1-

Domo

Issue

Ix ID	St.ID	B.ID	Do I

Head of Dep

E.ID, D.ID

E.ID	D.ID

	Domain cont	NULL count	Candidate Key	Primary Key	Foreign Key
Insertion	✓	✓	✓	✓	✓
Delete	✗	✗	✗	✗	✓
update	✓	✓	✓	✓	✓

1. REJECT

2. CASCADE → NULL / Default value

Stud

1	
2	
6	
7	NULL

Issue

| 7 | |

T₁

u·ID	BID

T2

u·ID	B·ID

Student

S-ID   Name   Phone

Books

B-ID   B-Name   Publisher   XOP

Issue

Issue ID   S-ID   B-ID   DOI