Relational Databases

Student

and

Student

ID

Card
Explanation: Each student in a school or university is assigned one unique Student ID card, and each card belongs to only one student.
Example:
Student:

Emily

Roberts
Student

ID

Card:
STU202410001
Why

is

this
1:1?
A

student

has

only

one

ID

card.
An
ID card belongs to only one student.
Answered 1:1

school student

- 🔑 studentid : int(4)
- studentname : varchar(50)

school studentidcard

- 🔑 id : int(4)
- countryname : varchar(50)
- # studentid : int(4)

Extra options

studentid	studentname	countryname
1	Emily Roberts	somaliland
2	john cabdi	turkey
3	yahya	somalia
4	asma	kenya
5	mustafe	mexico
6	xalimo	poland

Parent

and
Children
Explanation:

A

parent

can

have

multiple

children,

but

each

child

has

only

one biological mother and one biological father.
Example:
Parent:

Mrs.

Johnson
Children:

Emma,

Olivia,

Liam
Why

is

this
1:M?
One

parent

?

Multiple

children.
E
ach child ? Only one biological mother
Answered 1:M
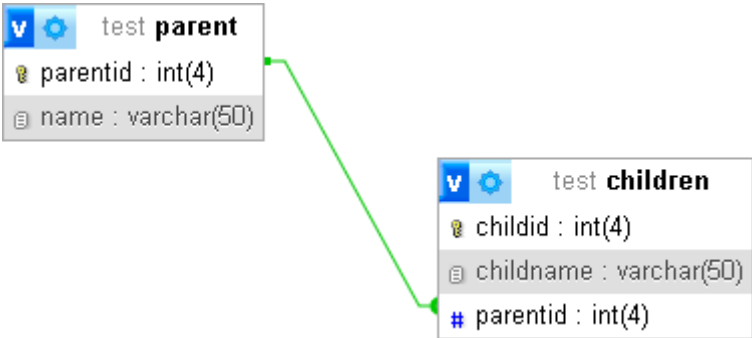
parentid	name	childname
1	Mrs. Johnson	Emma
1	Mrs. Johnson	Olivia
1	Mrs. Johnson	Liam

Teachers

and

Subjects
Explanation:

A

teacher

can

teach

multiple

subjects,

and

a

subject

can

be

taught

by multiple teachers.
Example:
Teachers:

Mr.

Smith,

Ms.

Johnson,

Dr.

Lee
Subjects:

Biology,

Chemistry,

Physics
Why

is

this

M:M?
Mr.

Smith

can

teach

Biology

and
Chemistry.
Ms.

Johnson

can

teach

Physics

and
Chemistry.
The

Chemistry

subject

can

be

taught

by

both

Mr.

Smith

and

Ms.

Johnson.
The

Biology

subject

can

be

taught

by

Mr.

Smith

and

Dr.

Lee.

Answered M:M

v ⚙	test **teacher**
🔑	teacherid : int(4)
📄	teachername : varchar(50)

v ⚙	test **subject**
🔑	subjectid : int(4)
📄	subjectname : varchar(50)

v ⚙	test **teacher_subject**
🔑	teacherid : int(4)
#	subjectid : int(4)