

1. Write Query to showcase one Trainer and one Module relationship

A relationship is one-to-one if and only if one record from table A is related to a maximum of one record in table B.

In order to create 1:1 relationship between Trainer and Module tables there should be a parent-child relationship

- 1) First create a column in Module_info table with Unique constraint
- 2) In second step create a foreign key (for the newly added column in Module_Info table) with reference to the primary key in Trainer_info table

QUERIES TO IMPLEMENT THE ONE-TO-ONE RELATIONSHIP:

- Alter table Module_info Add(Module_Id_info VARCHAR(100) UNIQUE);
- ALTER TABLE Module_info ADD CONSTRAINT FK_Module_info FOREIGN KEY(Module_Id_info) REFERENCES Trainer_info(Trainer_Id);

2. Write Query to showcase one Trainer and Many Modules relationship

A relationship is one-to-many if and only if one record from table A is related to one or more records in table B. However, one record in table B cannot be related to more than one record in table A.

- 1) First create a column in Module_info table with non Unique constraint
- 2) In second step create a foreign key (for the newly added column in Module_Info table) with reference to the primary key in Trainer_info table

QUERIES TO IMPLEMENT THE ONE-TO-ONE RELATIONSHIP:

- Alter table Module_info Add(Module_Id_info VARCHAR(100));
- ALTER TABLE Module_info ADD CONSTRAINT FK_Module_info FOREIGN KEY(Module_Id_info) REFERENCES Trainer_info(Trainer_Id);

3. Write Query to showcase many Trainer and Many Module relationship.

A relationship is many-to-many if and only if one record from table A is related to one or more records in table B and vice-versa.

QUERY:

```
create table Trainer_Module_info
(
Trainer_id VARCHAR(20) NOT NULL,
Module_id VARCHAR(20) NOT NULL,
CONSTRAINT FK_Trainer FOREIGN KEY (Trainer_id) REFERENCES Trainer_info
(Trainer_id),
CONSTRAINT FK_Module FOREIGN KEY (Module_id) REFERENCES Module_info
(Module_id),
unique(Trainer_id,Module_id)
);
```