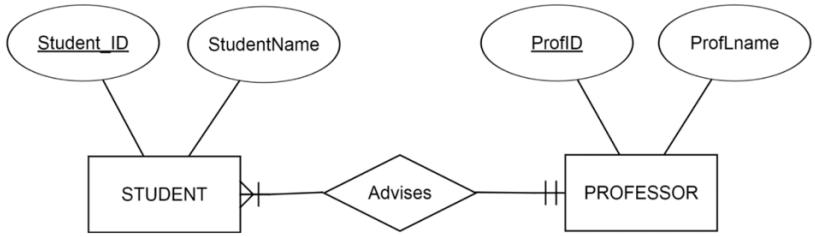
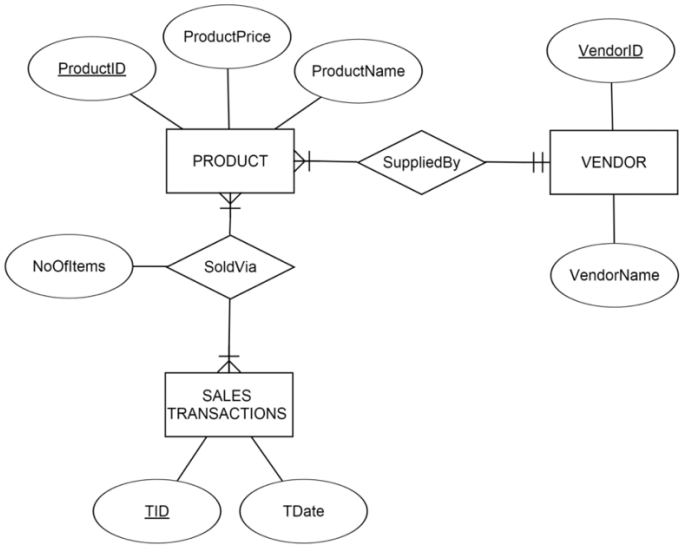
RELATIONAL SCHEMA EXERCISES

Exercise 1. Make a relational schema that represents data and relationships depicted in this diagram:

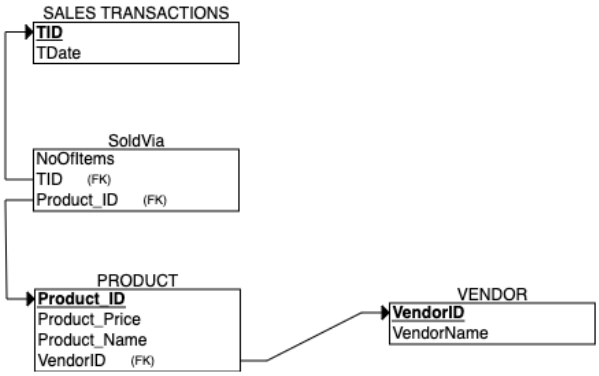


Answer :

Exercise 2. Make a relational schema that represents data and relationships depicted in this diagram:



Answer :



Exercise 3. Which table of data (Table A or Table B) corresponds with the relation depicted below?

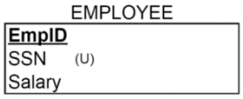


Table A:

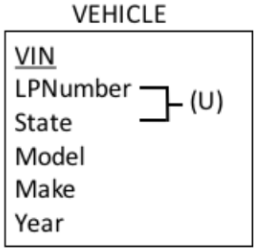
EmpID	SSN	Salary
1243	111-11-1111	$75,000
2345	222-22-2222	$50,000
3456	333-33-3333	$50,000
1324	222-22-2222	$70,000

Table B:

EmpID	SSN	Salary
4536	111-11-1111	$75,000
6645	222-22-2222	$50,000
8867	333-33-3333	$90,000
2134	444-44-4444	$70,000

Answer : Table B corresponds with the relation since U symbol emphasizes each value in the SSN column has to be unique . Table A contains a duplicate row in the SSN column.

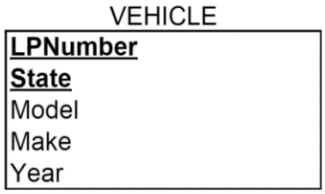
Exercise 4a. Describe in the words the data that would be contained in a table made to reflect the relation depicted below?



Answer :

In this table containing information about vehicles, VIN has the primary key role. So every value in this column is unique. While the LP Number and State columns are not unique on their own, their combinations are unique. Model, Make and Year columns don’t have to be unique.

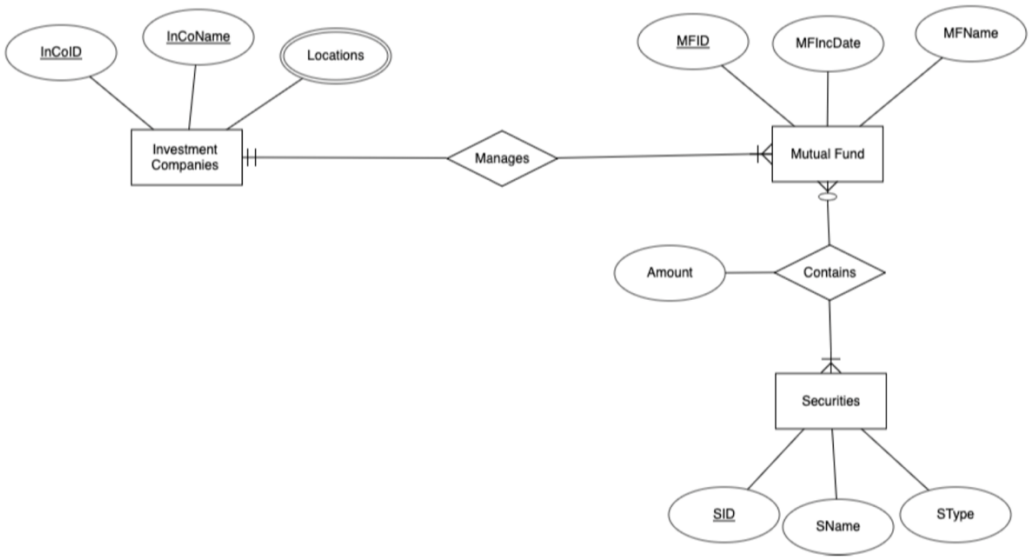
Exercise 4b. Describe in the words the data that would be contained in a table made to reflect the relation depicted below?



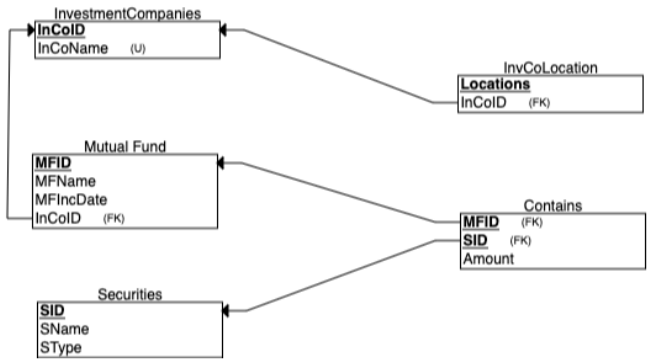
Answer :

LPNumber and State will act as a composite primary key. A Composite Primary Key is created by combining two or more columns in a table that can be used to uniquely identify each row in the table when the columns are combined. (e.g First Name + Last Name)

Exercise 5. Create a relational schema for a database that will hold the information depicted in Exercise 3 of the Entity Relationship Diagram Exercises (which asks you to make an ER diagram for Investco Scout's database).
ER Diagram

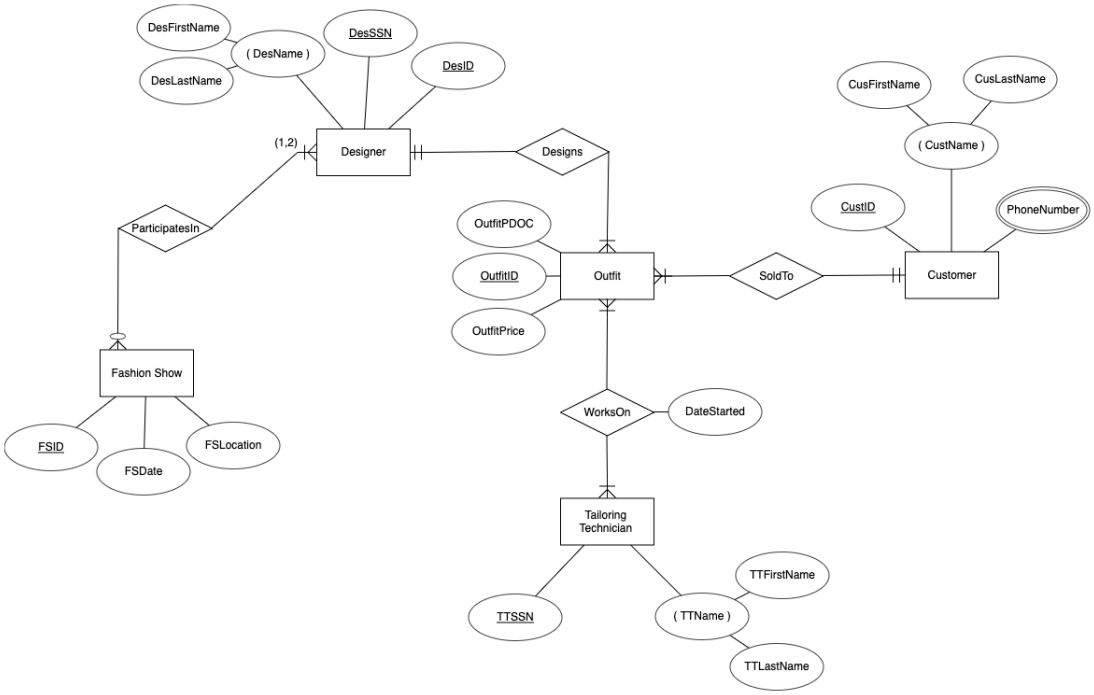


Relational Schema

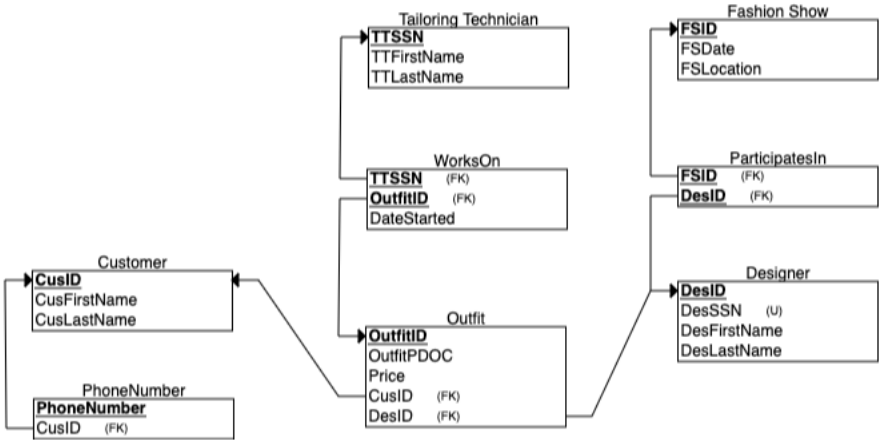


Exercise 6. Create a relational schema for a database that will hold the information depicted in Exercise 4 of the Entity Relationship Diagram Exercises (which asks you to make an ER diagram for Snooty Fashion's database).

ER Diagram

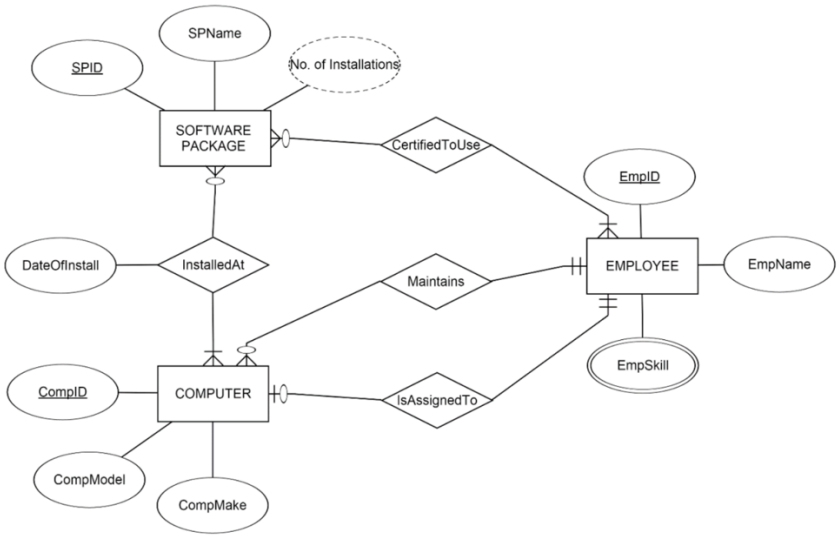


Relational Schema



Exercise 7. Create a relational schema for a database that will hold the information depicted in Exercise 5 of the Entity Relationship Diagram Exercises (which asks you to interpret the ER diagram for ExoProtect's database).

ER Diagram



Relational Schema