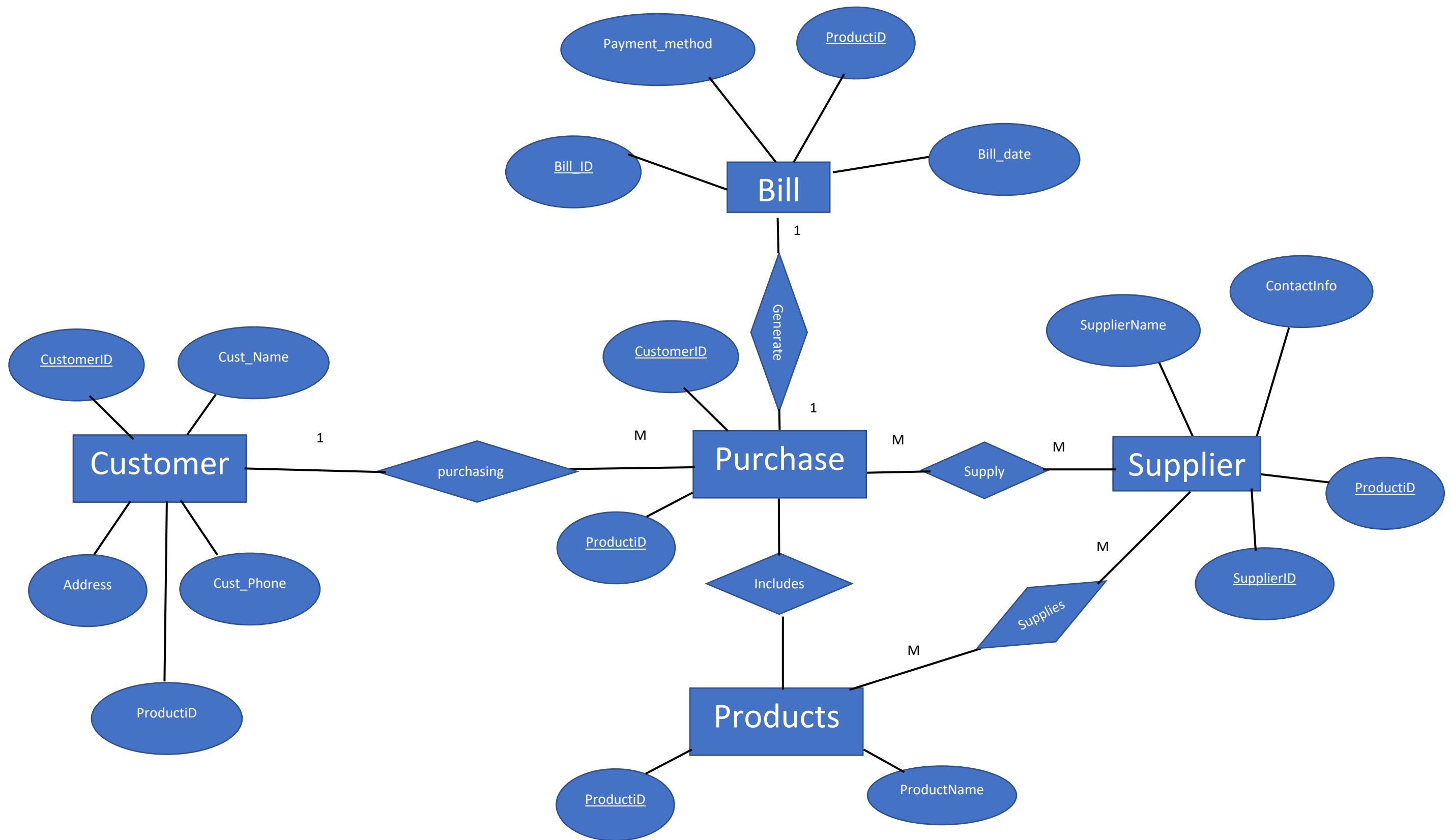


## Question 1

Design the database for a shop which sells products.

Points for consideration

- 1) One product can be supplied by many suppliers
- 2) One supplier can supply many products
- 3) All customers details have to present
- 4) A customer can buy more than one product in every purchase
- 5) Bill for every purchase has to be stored
- 6) These are just details of one shop



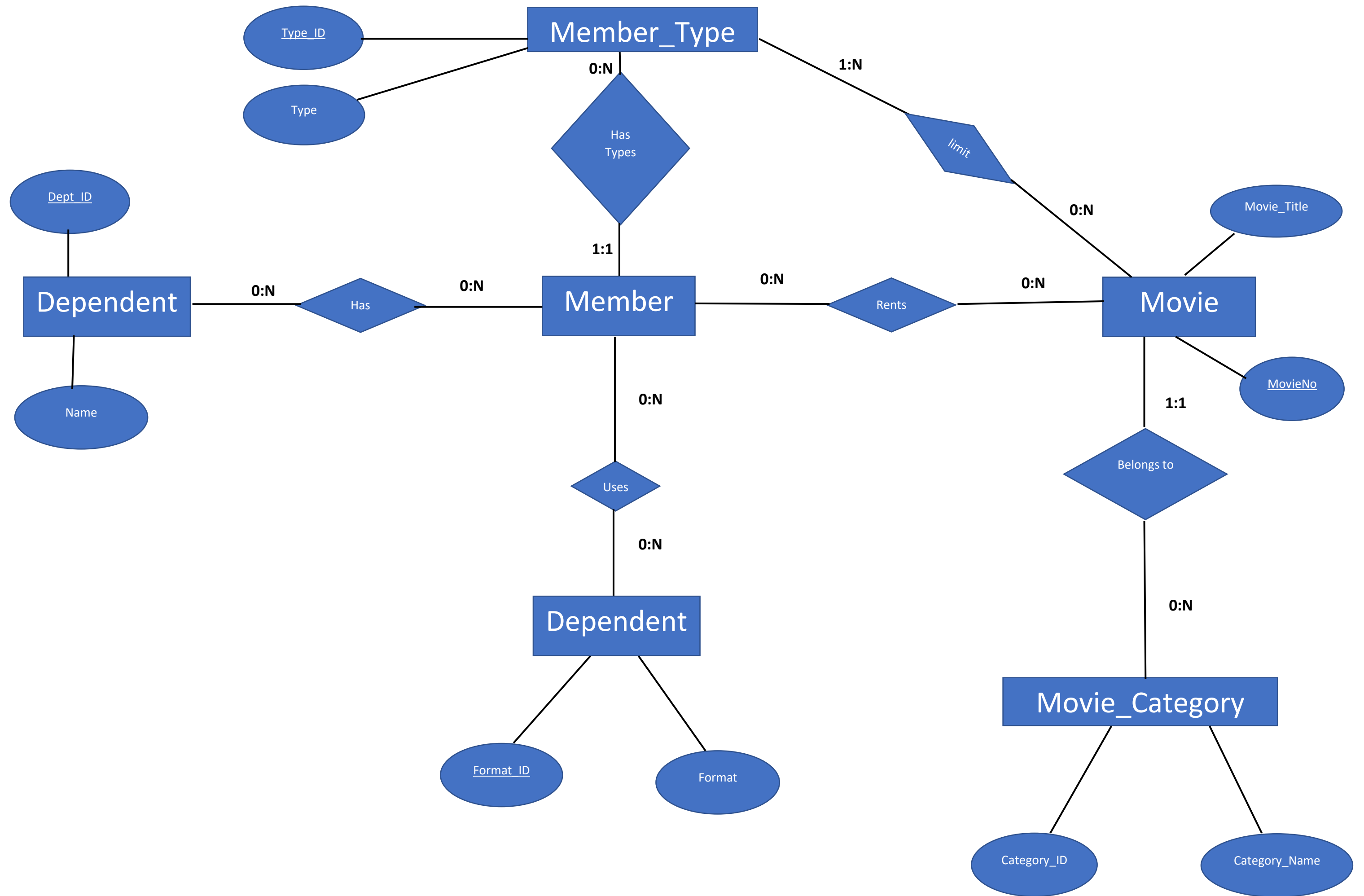
# Question2

## Case 1: A Simple Case on ER Modelling

- Goal – to demonstrate how to build an E-R model from a simple Statement of Objectives of a movie store. ( given very clearly in statement forms)

### Scenario:

- A video store rents movies to members.
- Each movie in the store has a title and is identified by a unique movie number.
- A movie can be in VHS, VCD, or DVD format.
- Each movie belongs to one of a given set of categories (action, adventure, comedy, ... )
- The store has a name and a (unique) phone number for each member.
- Each member may provide a favorite movie category (used for marketing purposes).
- There are two types of members:
  - o Golden Members:
  - o Bronze Members:
- Using their credit cards gold members can rent one or more movies and bronze members max. of one movie.
- A member may have a number of dependents (with known names).
- Each dependent is allowed to rent one (1) movie at a time.



## Question3

( A little more abstract case)

Create an ER Diagram for a student registration system where the entities are Students, Instructors, Courses and Schedules. Consider all the possible pairings. (Given not in statements form, but in a summarized way)

Assumptions:

A student is taught by one or more Instructor

A student joins only one course

An Instructor may teach any number of students

An Instructor takes at least one course

A course will have only one schedule

A course may have many students

A course is taught by only one Instructor

A schedule may be used for many courses

