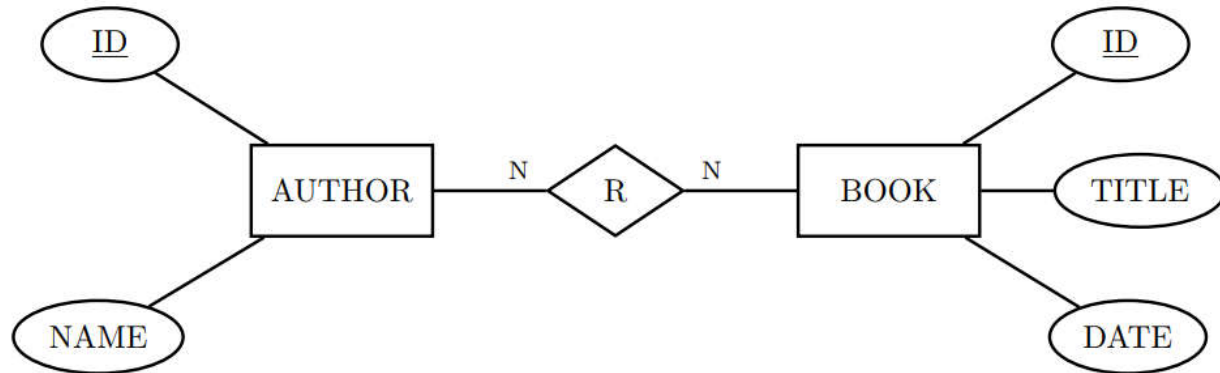


LAB SESSION 1

EXERCISE 1



- 1- Convert the above Entity-Relationship model to a relational model.
- 2- Using SQL, create the tables of the database that correspond to this relational model.
- 3- Using SQL, insert two authors: <1, Martin>, <2, Howard>.
- 4- Martin and Howard co-authored a book titled 'Neural Network Design' published on 01/01/1996. Add this information to the database.

EXERCISE 2

The pizzeria scheme consists of four relations Person, Frequents, Eats, and Serves.

Person(name, age, gender)
Frequents(name, pizzeria)
Eats (name, pizza)
Serves (pizzeria, pizza, price)

- 1- Person contains information about persons: name, age, and gender
 - 2- Eats contains information about what type of pizza each person (customer) eats (likes)
 - 3- Frequents record information about pizzerias that each customer frequents (visits)
 - 4- Serves contains information about all possible pizza types for each pizzeria
- a) Download '**pizza.sql**' from the course website on the Moodle platform and extract it on your local PC (Scan the QR code to get the database).



b) Give the SQL queries that:

- 1- List the names of persons that eat 'pepperoni'.
- 2- List of all pizzerias that serve 'pepperoni' (provide the price).
- 3- Provide the older person (the person how has the greater age).
- 4- Provide the price of the cheapest pizza.
- 5- Provide the cheapest served pizzas.
- 6- Provide the sum of the price of the pizzas served by '**Dominos**'.
- 7- Provide the pizzerias which serve the greater number of distinct pizzas (Provide also the number of served pizzas).
- 8- List of all pizzerias which serve at least one of pizzas that **Amy** eats.
- 9- List of all pizzerias which are frequented by **Ben**, but do not serve any of the pizzas that **Amy** eats.
- 10- Find the names of all females who eat either mushroom or **pepperoni** pizza (or both).
- 11- Find the names of all females who eat both **mushroom** and **pepperoni** pizza.
- 12- Find all pizzerias that serve at least one pizza that **Amy** eats for less than \$10.00
- 13- Find all pizzerias frequented by at least one person under the age of 18.
- 14- Find all pizza types which are not eaten by anyone
- 15- Find all pizzerias that are frequented by only males.
- 16- For each person, find all pizzas the person eats that are not served by any pizzeria the person frequents. Return all such person (name, pizza) pairs.
- 17- Find the names of all people who frequent only pizzerias serving at least one pizza they eat.