Database Designs: Activity One

To design the schema for the Rent-A-Movie video rental store, we need to define the tables and their relationships. The schema will consist of the following tables which have been identified from the question.

Tables.

1. Customer
2. Address
3. ZipCode
4. Movie
5. MovieType
6. Actor
7. MovieCast
8. MoviePrice
9. Transaction
10. TransactionDetails

Tables in Details (Having attributes)

1. **Customer**

- CustomerID (INT, Primary Key)
- FirstName (VARCHAR(255))
- LastName (VARCHAR(255))
- Email (VARCHAR(255))
- PhoneNumber (VARCHAR(20))
- AddressID (INT, Foreign Key)

2. **Address**

- AddressID (INT, Primary Key)
- Street (VARCHAR(255))
- ZipCodeID (INT, Foreign Key)

3. **ZipCode**

- ZipCodeID (INT, Primary Key)
- ZipCode (VARCHAR(10))

- City (VARCHAR(255))
- State (VARCHAR(50))

4. **Movie**
- MovieID (INT, Primary Key)
- MovieTitle (VARCHAR(255))
- MoviePriceID (DECIMAL, Foreign Key)
- MovieTypeID (INT, Foreign Key)
- EntertainmentTax(DECIMAL,(5,2))

5. **MovieType**
- MovieTypeID (INT, Primary Key)
- MovieTypeName (VARCHAR(255)

6. **Actor**
- ActorID (INT, Primary Key)
- FirstName (VARCHAR(255))
- LastName (VARCHAR(255))

7. **MovieCast**
- MovieCastID (INT, Primary Key)
- MovieID (INT, Foreign Key)
- ActorID (INT, Foreign Key)

8. **MoviePrice**
- MoviePriceID (INT, Primary Key)
- MoviePrice (DECIMAL(some int,2))

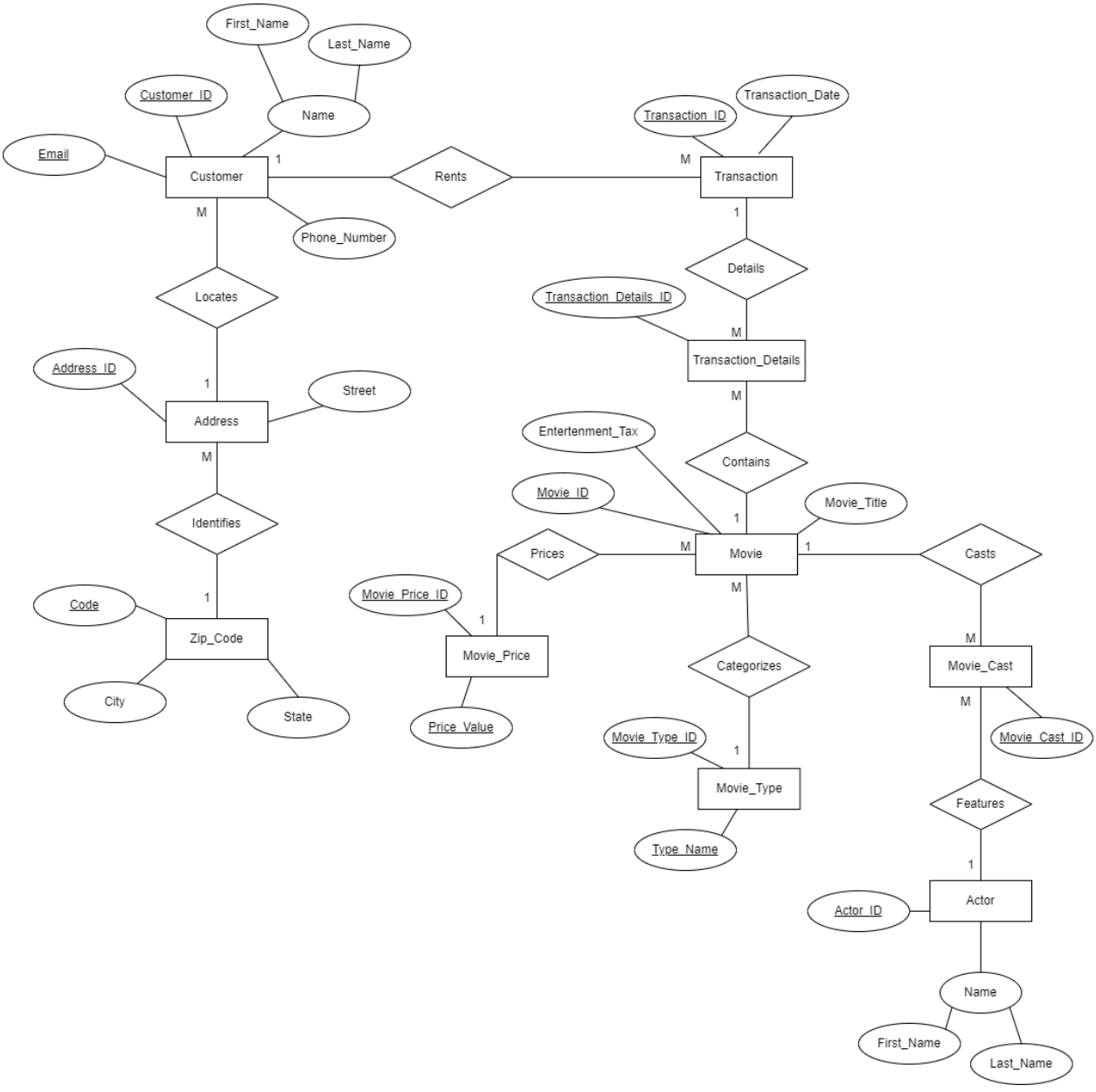
9. **Transaction**
- TransactionID (INT, Primary Key)
- CustomerID (INT, Foreign Key)
- TransactionDate (DATETIME)

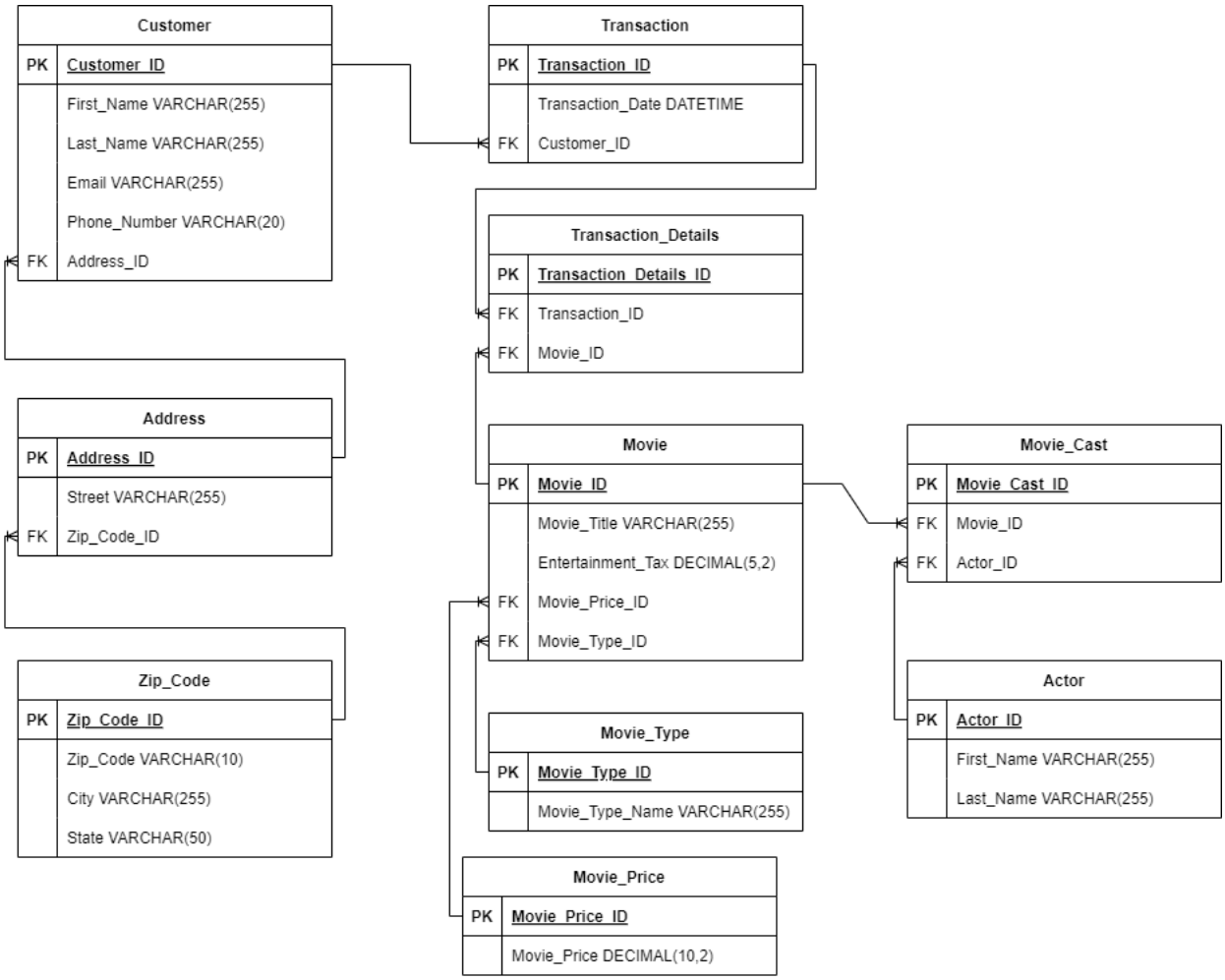
10. **TransactionDetails**
- TransactionDetailsID (INT, Primary Key)
- TransactionID (INT, Foreign Key)

- MovieID (INT, Foreign Key)

The detailed tables can be used to demonstrate a visual representation of the database, in Entity Relationships Diagram, and from that or directly to Relationships model.

1. Entity Relationships Diagram.




Customer
PK Customer_ID
First_Name VARCHAR(255)
Last_Name VARCHAR(255)
Email VARCHAR(255)
Phone_Number VARCHAR(20)
FK Address_ID
Transaction
PK Transaction_ID
Transaction_Date DATETIME
FK Customer_ID
Transaction_Details
PK Transaction_Details_ID
FK Transaction_ID
FK Movie_ID
Address
PK Address_ID
Street VARCHAR(255)
FK Zip_Code_ID
Movie
PK Movie_ID
Movie_Title VARCHAR(255)
Entertainment_Tax DECIMAL(5,2)
FK Movie_Price_ID
FK Movie_Type_ID
Movie_Cast
PK Movie_Cast_ID
FK Movie_ID
FK Actor_ID
Zip_Code
PK Zip_Code_ID
Zip_Code VARCHAR(10)
City VARCHAR(255)
State VARCHAR(50)
Movie_Type
PK Movie_Type_ID
Movie_Type_Name VARCHAR(255)
Actor
PK Actor_ID
First_Name VARCHAR(255)
Last_Name VARCHAR(255)
Movie_Price
PK Movie_Price_ID
Movie_Price DECIMAL(10,2)