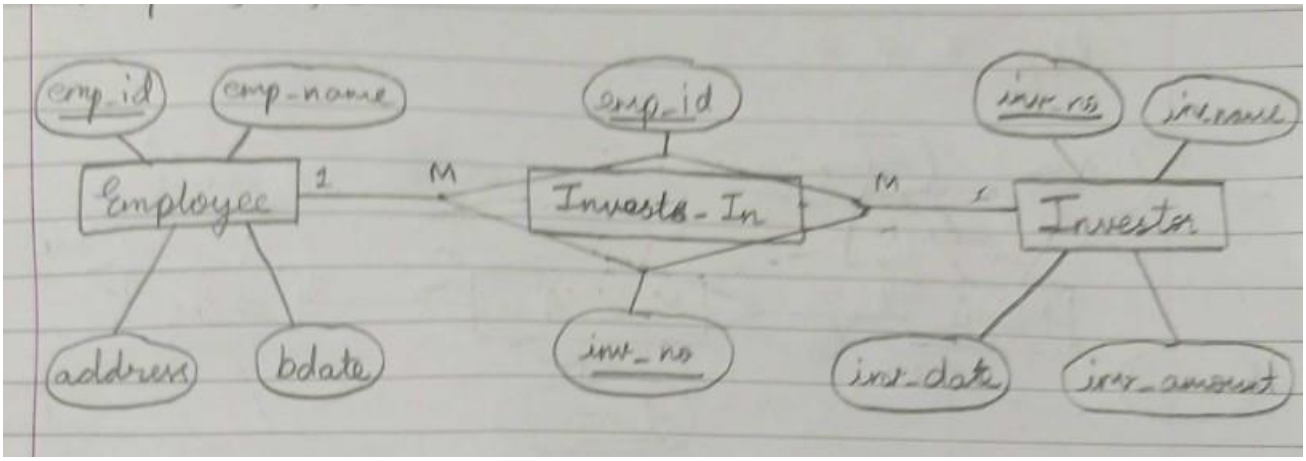
Q1) Practical Questions on PostgresSQL
Employee (emp_id,emp_name,address,bdate)Investor
(inv_no,inv_name,inv_date,inv_amt)

An employee may invest in one or more investments, hence he can be an investor. But aninvestor need not be an employee of the firm.
Assume appropriate data types for all the attributes.

a) Draw the ER diagram for above relational schema and normalize it in 3NF.



b) Create the above database in 3NF form in PostgresSQL using constraints.

```
CREATE TABLE Employee (emp_id SERIAL PRIMARY KEY, emp_name VARCHAR(100) NOT NULL, address TEXT, bdate DATE);

CREATE TABLE Investor (inv_no SERIAL PRIMARY KEY, inv_name VARCHAR(100) NOT NULL, inv_date DATE, inv_amt DECIMAL(12, 2) NOT NULL);

CREATE TABLE EmployeeInvestor (emp_id INT REFERENCES Employee(emp_id), inv_no INT REFERENCES Investor(inv_no), PRIMARY KEY (emp_id, inv_no));

INSERT INTO Employee (emp_name, address, bdate) VALUES ('John Doe', '123 Main St, Anytown, USA', '1990-05-15'), ('Mary Smith', '456 Elm St, Somewhere, USA', '1985-09-20'), ('Alice Johnson', '789 Oak St, Nowhere, USA', '1992-03-10');

INSERT INTO Investor (inv_name, inv_date, inv_amt) VALUES ('Mary Smith', '2023-01-05', 15000.00), ('John Doe', '2023-02-10', 20000.00), ('Michael Brown', '2023-03-15', 25000.00);

INSERT INTO EmployeeInvestor (emp_id, inv_no) VALUES (1, 1), (2, 2), (3, 3);
```

Q2) Using above database, solve the following queries:

a) List the names of employees who are also investors.
```
SELECT e.emp_name FROM Employee e JOIN EmployeeInvestor ei ON e.emp_id = ei.emp_id;
```

b) List the information of Investors whose name start with ‘M’
```
SELECT * FROM Investor WHERE inv_name LIKE 'M%';
```

c) Increase the amount of investors by 10%.
```
UPDATE Investor SET inv_amt = inv_amt * 1.10;
```

d) Delete the investor information whose amount is 20,000.
```
DELETE FROM Investor WHERE inv_amt = 20000.00;
```