EXERCISE – 1 CONTROL STRUCTURES

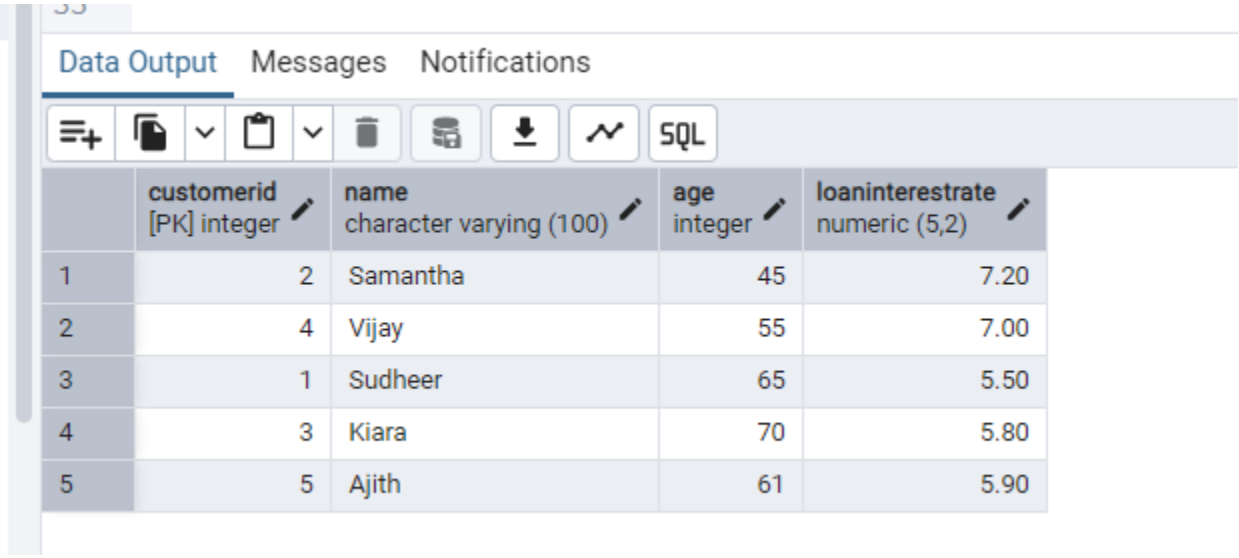
SCENARIO 1

```
CREATE TABLE Customers (
   CustomerID SERIAL PRIMARY KEY,
   Name VARCHAR(100),
   Age INT,
   LoanInterestRate DECIMAL(5,2)
);
INSERT INTO Customers (Name, Age, LoanInterestRate) VALUES
('Sudheer', 65, 6.5),
('Samantha', 45, 7.2),
('Kiara', 70, 6.8),
('Vijay', 55, 7.0),
('Ajith', 61, 6.9);
DO $$
DECLARE
   customer_rec RECORD;
BEGIN
   FOR customer_rec IN (SELECT CustomerID, Age, LoanInterestRate FROM Customers) LOOP
      IF customer_rec.Age > 60 THEN
         UPDATE Customers
         SET LoanInterestRate = LoanInterestRate - 1
         WHERE CustomerID = customer_rec.CustomerID;
      END IF;
   END LOOP;
```

END $$;

SELECT * FROM Customers;

Output



	customerid [PK] integer	name character varying (100)	age integer	loaninterestrate numeric (5,2)
1	2	Samantha	45	7.20
2	4	Vijay	55	7.00
3	1	Sudheer	65	5.50
4	3	Kiara	70	5.80
5	5	Ajith	61	5.90

SCENARIO 2

CREATE TABLE Customers (

CustomerID SERIAL PRIMARY KEY,

Name VARCHAR(100),

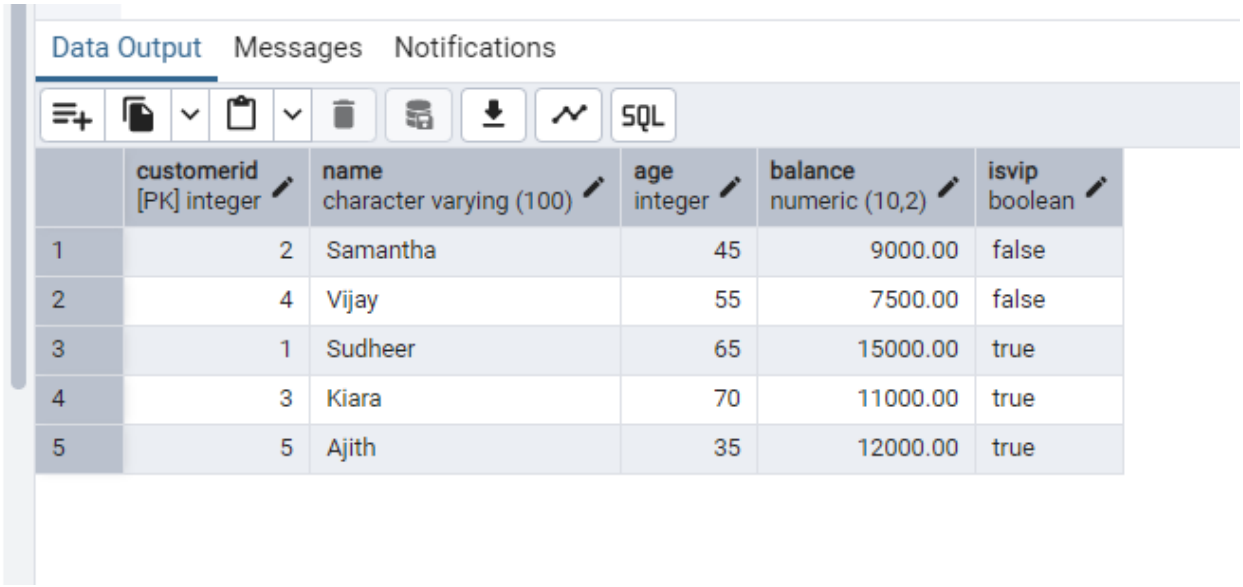
Age INT,

Balance DECIMAL(10,2),

IsVIP BOOLEAN DEFAULT FALSE

```
);
INSERT INTO Customers (Name, Age, Balance) VALUES
('Sudheer', 65, 15000.00),
('Samantha', 45, 9000.00),
('Kiara', 70, 11000.00),
('Vijay', 55, 7500.00),
('Ajith', 35, 12000.00);
DO $$
DECLARE
   customer_rec RECORD;
BEGIN
   FOR customer_rec IN (SELECT CustomerID, Balance FROM Customers) LOOP
      IF customer_rec.Balance > 10000 THEN
         UPDATE Customers
         SET IsVIP = TRUE
         WHERE CustomerID = customer_rec.CustomerID;
      END IF;
   END LOOP;
END $$;
SELECT * FROM Customers;
```

Output



Data Output | Messages | Notifications

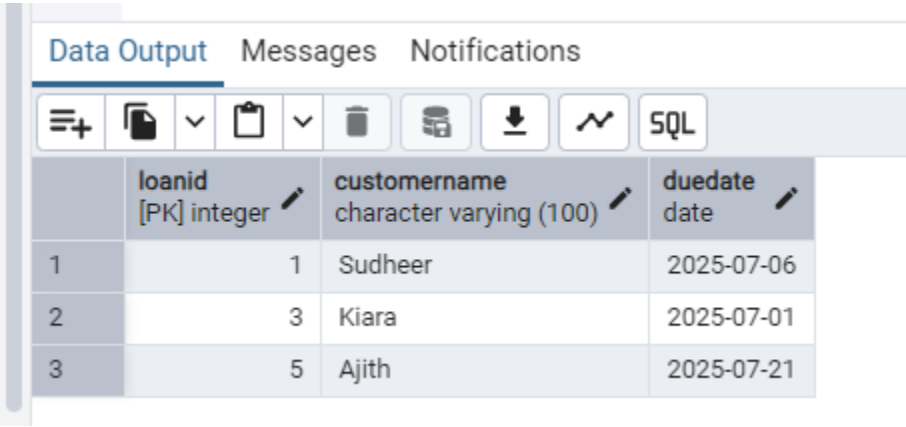
	customerid [PK] integer	name character varying (100)	age integer	balance numeric (10,2)	isvip boolean
1	2	Samantha	45	9000.00	false
2	4	Vijay	55	7500.00	false
3	1	Sudheer	65	15000.00	true
4	3	Kiara	70	11000.00	true
5	5	Ajith	35	12000.00	true

SCENARIO 3

```
CREATE TABLE Loans (
    LoanID SERIAL PRIMARY KEY,
    CustomerName VARCHAR(100),
    DueDate DATE
);
INSERT INTO Loans (CustomerName, DueDate) VALUES
('Sudheer', CURRENT_DATE + INTERVAL '10 days'),
('Samantha', CURRENT_DATE + INTERVAL '35 days'),
('Kiara', CURRENT_DATE + INTERVAL '5 days'),
('Vijay', CURRENT_DATE - INTERVAL '2 days'),
('Ajith', CURRENT_DATE + INTERVAL '25 days');
```

```
DO $$
DECLARE
   loan_rec RECORD;
BEGIN
   FOR loan_rec IN (
      SELECT CustomerName, DueDate
      FROM Loans
      WHERE DueDate BETWEEN CURRENT_DATE AND CURRENT_DATE + INTERVAL '30 days'
   ) LOOP
      RAISE NOTICE 'Reminder: % has a loan due on %', loan_rec.CustomerName,
loan_rec.DueDate;
   END LOOP;
END $$;
SELECT * FROM Loans
WHERE DueDate BETWEEN CURRENT_DATE AND CURRENT_DATE + INTERVAL '30 days';
```

Output



Data Output | Messages | Notifications

	loanid [PK] integer	customername character varying (100)	duedate date
1	1	Sudheer	2025-07-06
2	3	Kiara	2025-07-01
3	5	Ajith	2025-07-21