PROJECT-TITLE:” FARMING MANAGEMENT SYSTEM”

DATE:18-12-2024

# **CREATE TABLES:**

**a) FARMER TABLE:**

CREATE TABLE FARMER (

FARMER\_ID INT PRIMARY KEY,

FARMER\_NAME VARCHAR (100),

FARMER\_PHONE\_NUMBER VARCHAR (15));

**b) FARM TABLE:**

CREATE TABLE FARM (

FARM\_ID INT PRIMARY KEY,

FARM\_NAME VARCHAR (100),

FARM\_ADDRESS VARCHAR (100),

FARMER\_ID INT,

FOREIGN KEY (FARMER\_ID) REFERENCES FARMER(FARMER\_ID));

**c) INPUT INVENTORY TABLE:**

CREATE TABLE INPUT\_INVENTORY (

INVENTORY\_ID INT PRIMARY KEY,

ITEM\_NAME VARCHAR (255),

QUANTITY INT,

FARMER\_ID INT,

FOREIGN KEY (FARMER\_ID) REFERENCES FARMER(FARMER\_ID));

**d) FINANCIAL TRANSACTIONS TABLE:**

CREATE TABLE FINANCIAL\_TRANSACTIONS (

TRANSACTION\_ID INT PRIMARY KEY,

TYPE\_OF\_AMOUNT VARCHAR (255),

AMOUNT DECIMAL (15, 2),

FARMER\_ID INT,

FOREIGN KEY (FARMER\_ID) REFERENCES FARMER(FARMER\_ID));

**e) CROP TABLE:**

CREATE TABLE CROP (

CROP\_ID INT PRIMARY KEY,

NAME VARCHAR (255),

CROP\_TYPE VARCHAR (255));

**f) FARMING FIELD TABLE:**

CREATE TABLE FARMING\_FIELD (

FIELD\_ID INT PRIMARY KEY,

FARMER\_ID INT,

FIELD\_SIZE DECIMAL (10, 2),

CROP INT,

FARM\_ID INT,

FOREIGN KEY (FIELD\_ID) REFERENCES FARMING\_FIELD(FIELD\_ID));

FOREIGN KEY (FARMER\_ID) REFERENCES FARMER(FARMER\_ID),

FOREIGN KEY (CROP\_ID) REFERENCES CROP(CROP\_ID)),

FOREIGN KEY (FARM\_ID) REFERENCES FARM(FARM\_ID));

**g) FERTILIZERS TABLE:**

CREATE TABLE FERTILIZERS (

ANALYSIS\_ID INT PRIMARY KEY,

FIELD\_ID INT,

FERTILIZER\_TYPE VARCHAR (255),

FERTILIZER\_LEVEL DECIMAL (5, 2),

FOREIGN KEY (FIELD\_ID) REFERENCES FARMING\_FIELD(FIELD\_ID));

**h) IRRIGATION SCHEDULE TABLE:**

CREATE TABLE IRRIGATION\_SCHEDULE (

SCHEDULE\_ID INT PRIMARY KEY,

WATER\_REQUIREMENT DECIMAL (10, 2),

FREQUENCY VARCHAR (50),

FOREIGN KEY (FIELD\_ID) REFERENCES FARMING\_FIELD(FIELD\_ID)

);

**i)HARVEST RECORD TABLE:**

CREATE TABLE HARVEST\_RECORD (

HARVEST\_ID INT PRIMARY KEY,

YIELD\_QUANTITY DECIMAL (10, 2),

DATE\_OF\_HARVEST DATE,

CROP\_ID INT,

FOREIGN KEY (CROP\_ID) REFERENCES CROP(CROP\_ID)

);

# **INSERT DATA IN TABLES:**

# **a) FARMER TABLE:**

INSERT INTO FARMER VALUES (1, 'Ahmed Ali', '1234567890');

INSERT INTO FARMER VALUES (2, 'Abdullah Mohsin', '1234567890');

INSERT INTO FARMER VALUES (3, 'Arish Khan', '1234567890');

INSERT INTO FARMER VALUES (4, 'Faheem Abbas', '1234567890');

INSERT INTO FARMER VALUES (5, 'Raman Soquel', '1234567890');

# **b) FARM TABLE:**

INSERT INTO FARM VALUES (1, 'Sunny Farm', '123 Green Road',3);

INSERT INTO FARM VALUES (2, 'Green Valley Farm', '45 Canal View', 4);

INSERT INTO FARM VALUES (3, 'Pakistani Orchard', '78 Mango Street', 3);

INSERT INTO FARM VALUES (4, 'Golden Wheat Fields', '12 Lahore Avenue', 4);

INSERT INTO FARM VALUES (5, 'Sindh Dairy Farm', '90 Karachi Road', 2);

# **c) INPUT INVENTORY TABLE:**

INSERT INTO INPUT\_INVENTORY VALUES (1, 'Wheat Seeds', 500, 3);

INSERT INTO INPUT\_INVENTORY VALUES (2, 'Fertilizer (Urea)', 300, 2);

INSERT INTO INPUT\_INVENTORY VALUES (3, 'Pesticides', 150, 2);

INSERT INTO INPUT\_INVENTORY VALUES (4, 'Tractor Fuel', 200, 3);

INSERT INTO INPUT\_INVENTORY VALUES (5, 'Irrigation Pipes', 50, 4);

# **d) FINANCIAL TRANSACTIONS TABLE:**

INSERT INTO FINANCIAL\_TRANSACTIONS VALUES (1, 'Crop Sale', 1500.00, 5);

INSERT INTO FINANCIAL\_TRANSACTIONS VALUES (2, 'Fertilizer Purchase', 2500, 2);

INSERT INTO FINANCIAL\_TRANSACTIONS VALUES (3, 'Seed Purchase', 4300, 5);

INSERT INTO FINANCIAL\_TRANSACTIONS VALUES (4, 'Equipment Maintenance', 1200, 2);

INSERT INTO FINANCIAL\_TRANSACTIONS VALUES (5, 'Milk Sale', 1000, 4);

# **e) CROP TABLE:**

INSERT INTO CROP VALUES (1, 'Wheat', 'Grain');

INSERT INTO CROP VALUES (2, 'Rice', 'Grain');

INSERT INTO CROP VALUES (3, 'Cotton', 'Fiber');

INSERT INTO CROP VALUES (4, 'Sugarcane', 'Cash Crop');

INSERT INTO CROP VALUES (5, 'Mango', 'Fruit');

# **f) FARMING FIELD:**

INSERT INTO FARMING\_FIELD VALUES (1, 1, 10.50, 3,3);

INSERT INTO FARMING\_FIELD VALUES (2, 2, 15.00, 4,4);

INSERT INTO FARMING\_FIELD VALUES (3, 3, 8.25, 2,2);

INSERT INTO FARMING\_FIELD VALUES (4, 4, 12.00, 4,4);

INSERT INTO FARMING\_FIELD VALUES (5, 5, 20.00, 3,3);

# **g) FERTILIZERS:**

INSERT INTO FERTILIZERS VALUES (1, 2, 'Nitrogen', 12.50);

INSERT INTO FERTILIZERS VALUES (2, 2, 'Phosphorus', 15.00);

INSERT INTO FERTILIZERS VALUES (3, 3, 'Potassium', 10.00);

INSERT INTO FERTILIZERS VALUES (4, 4, 'Organic Compost', 8.00);

INSERT INTO FERTILIZERS VALUES (5, 5, 'Micronutrients Mix', 20.00);

INSERT INTO FERTILIZERS VALUES (6, 3, 'Organic Compost’, 20.00);

INSERT INTO FERTILIZERS VALUES (7, 5, 'Micronutrients Mix', 20.00);

INSERT INTO FERTILIZERS VALUES (8, 1, 'Organic Compost’, 20.00);

INSERT INTO FERTILIZERS VALUES (9, 4, 'Nitrogen', 20.00);

INSERT INTO FERTILIZERS VALUES (10, 1, 'Micronutrients Mix', 20.00);

# **h) IRRIGATION SCHEDULE**

INSERT INTO IRRIGATION\_SCHEDULE VALUES (1, 500.00, 'Weekly', 2);

INSERT INTO IRRIGATION\_SCHEDULE VALUES (2, 300.00, 'Bi-Weekly', 2);

INSERT INTO IRRIGATION\_SCHEDULE VALUES (3, 600.00, 'Monthly', 4);

INSERT INTO IRRIGATION\_SCHEDULE VALUES (4, 700.00, 'Weekly', 5);

INSERT INTO IRRIGATION\_SCHEDULE VALUES (5, 250.00, 'Bi-Weekly', 4);

# **i) HARVEST RECORD**

INSERT INTO HARVEST\_RECORD VALUES (1, 2000.00, '2024-12-15', 4);

INSERT INTO HARVEST\_RECORD VALUES (2, 3500.00, '2024-11-30', 4);

INSERT INTO HARVEST\_RECORD VALUES (3, 2500.00, '2024-10-20', 5);

INSERT INTO HARVEST\_RECORD VALUES (4, 4000.00, '2024-12-01', 3);

INSERT INTO HARVEST\_RECORD VALUES (5, 1500.00, '2024-07-15', 3);

# **DISPLAY TABLES:**

**1. Display FARMER Table**

SELECT \* FROM FARMER;

**2. Display FARM Table**

SELECT \* FROM FARM;

**3. Display INPUT\_INVENTORY Table**

SELECT \* FROM INPUT\_INVENTORY;

**4. Display FINANCIAL\_TRANSACTIONS Table**

SELECT \* FROM FINANCIAL\_TRANSACTIONS;

**5. Display CROP Table**

SELECT \* FROM CROP;

**6. Display FARMING\_FIELD Table**

SELECT \* FROM FARMING\_FIELD;

**7. Display FERTILIZERS Table**

SELECT \* FROM FERTILIZERS;

**8. Display IRRIGATION\_SCHEDULE Table**

SELECT \* FROM IRRIGATION\_SCHEDULE;

**9. Display HARVEST\_RECORD Table**

SELECT \* FROM HARVEST\_RECORD;