

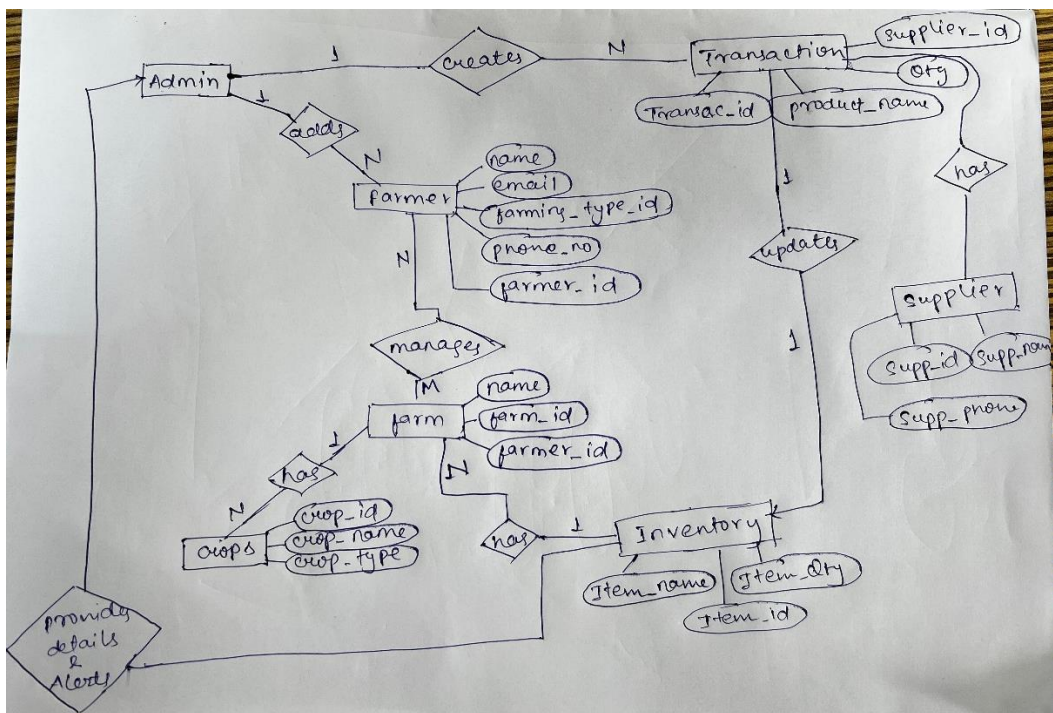
# Farm Management System

## Team:

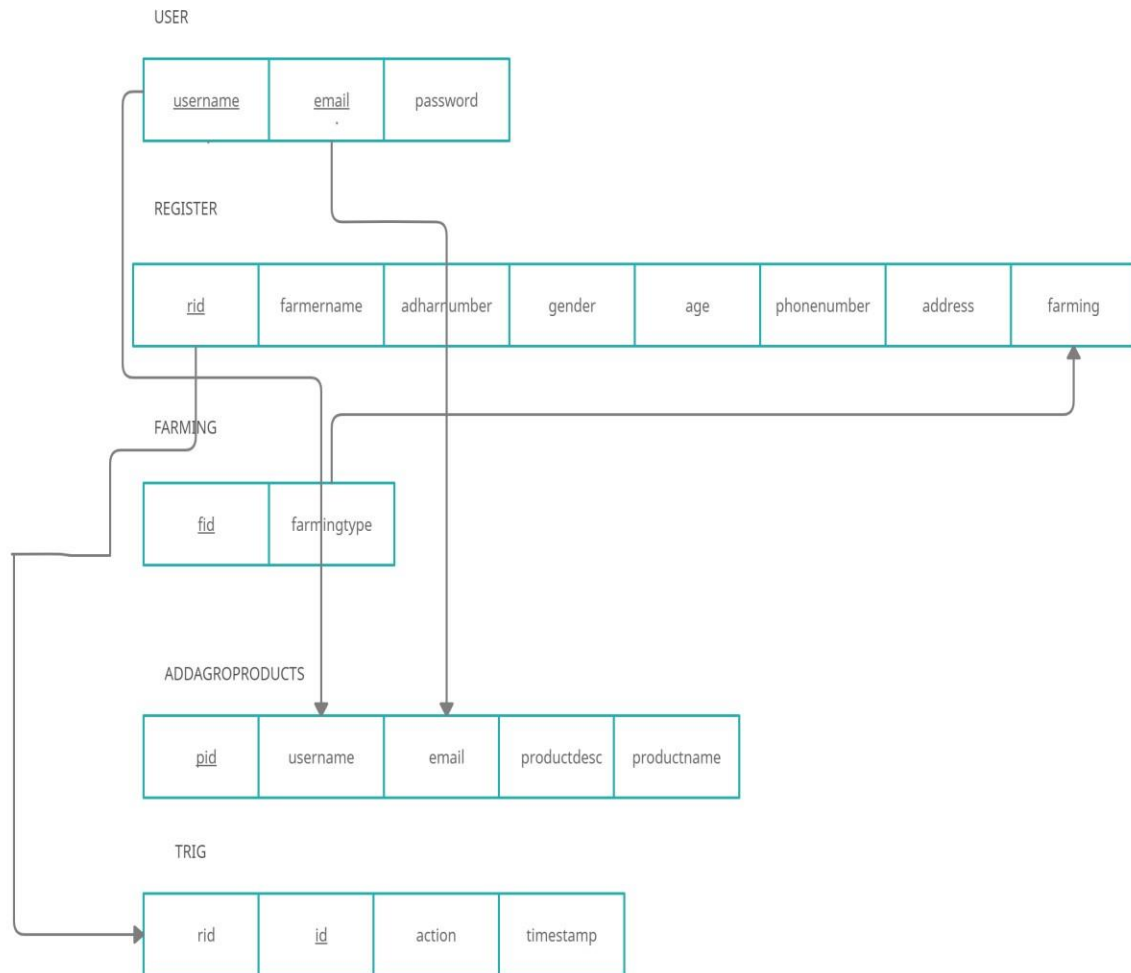
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## ER Diagram:



## Relationship Schema:



### Queries:

### Multi-Table Nested and Aggregate Query:

Lists the farmingtype while accessing every username and their associated products in the addagropducts table. Aggregates the total price of products added by each user and displays the total.

```
SELECT farming.farmingtype, addagroproducts.username,  
SUM(addagroproducts.price) AS total_price  
FROM farming  
JOIN register ON farming.fid = register.farming  
JOIN addagroproducts ON register.username = addagroproducts.username  
GROUP BY farming.farmingtype, addagroproducts.username;
```

## **Multi-Table Join and Aggregate Query:**

Returns the farming type with the maximum number of registered farmers associated with it.

```
SELECT farming.farmingtype, COUNT(register.rid) AS farmer_count  
FROM farming  
JOIN register ON farming.fid = register.farming  
GROUP BY farming.farmingtype  
ORDER BY farmer_count DESC  
LIMIT 1;
```

## **Multi-Table Aggregate and Ranking Query:**

Lists the farming types in descending order based on the number of farmers registered under each type.

```
SELECT farming.farmingtype, COUNT(register.rid) AS farmer_count  
FROM farming  
JOIN register ON farming.fid = register.farming  
GROUP BY farming.farmingtype  
ORDER BY farmer_count  
DESC;
```

## **Procedure Call:**

Calls the procedure to reset the price of a specific product in the addagroproducts table.

```
CALL reset_product_price('silk');
```

## **Update Queries:**

Updates the price of a specific product in the addagroproducts table.

```
UPDATE addagroproducts  
SET price = 600  
WHERE productname = 'GIRIJA CAULIFLOWER';
```

Updates the details (address, age, and phone number) of a specific farmer in the register table.

**UPDATE register**

**SET address = 'New Address', age = 35, phonenumber = '9876543210'**

**WHERE farmername = 'arkpro';**

Updates the timestamp in the trig table after a product's details are updated.

**UPDATE trig**

**SET timestamp = NOW()**

**WHERE action = 'FARMER UPDATED';**

### **Insert Queries:**

Inserts a new product into the addagroproducts table.

**INSERT INTO addagroproducts (username, email, pid, productname, productdesc, price)**

**VALUES ('newuser', 'newuser@example.com', 4, 'Wheat', 'High-quality wheat for baking', 300);**

Adds a new farming type into the farming table.

**INSERT INTO farming (fid, farmingtype)**

**VALUES (4, 'Organic Farming');**

Registers a new farmer into the register table and ensures triggers track the addition.

**INSERT INTO register (rid, farmername, adharnumber, age, gender, phonenumber, address, farming)**

**VALUES (10, 'newfarmer', '123456789012', 40, 'Male', '9876543210', 'New Address', 'Organic Farming');**

### **Triggers:**

Increments the trig table's timestamp and logs an action when a farmer is deleted.

```
CREATE TRIGGER `deletion` BEFORE DELETE ON `register`  
FOR EACH ROW  
INSERT INTO trig VALUES (NULL, OLD.rid, 'FARMER DELETED', NOW());
```

Verifies data integrity by ensuring no duplicate farming types are added to the farming table.

```
CREATE TRIGGER prevent_duplicate_farming BEFORE INSERT ON `farming`  
FOR EACH ROW  
BEGIN  
    IF EXISTS (SELECT 1 FROM farming WHERE farmingtype = NEW.farmingtype)  
    THEN  
        SIGNAL SQLSTATE '45000'  
        SET MESSAGE_TEXT = 'Duplicate farming type not allowed';  
    END IF;  
END;
```

Checks and logs updates to the register table for monitoring farmer information changes.

```
CREATE TRIGGER `updation` AFTER UPDATE ON `register`  
FOR EACH ROW  
INSERT INTO trig VALUES (NULL, NEW.rid, 'FARMER UPDATED', NOW());
```

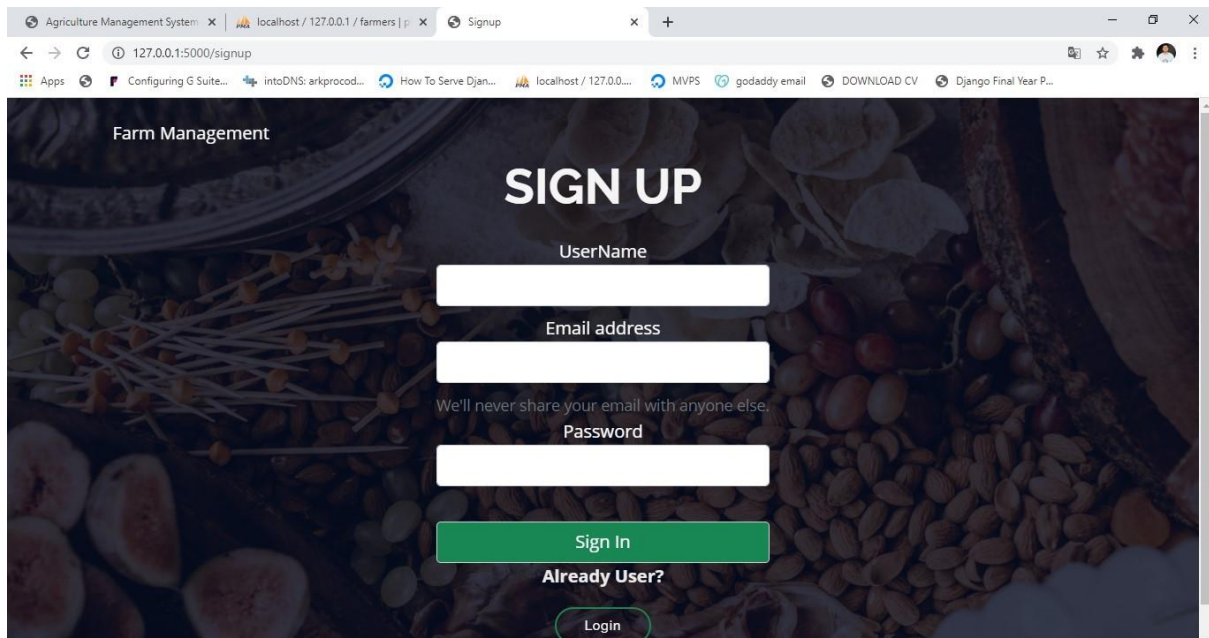
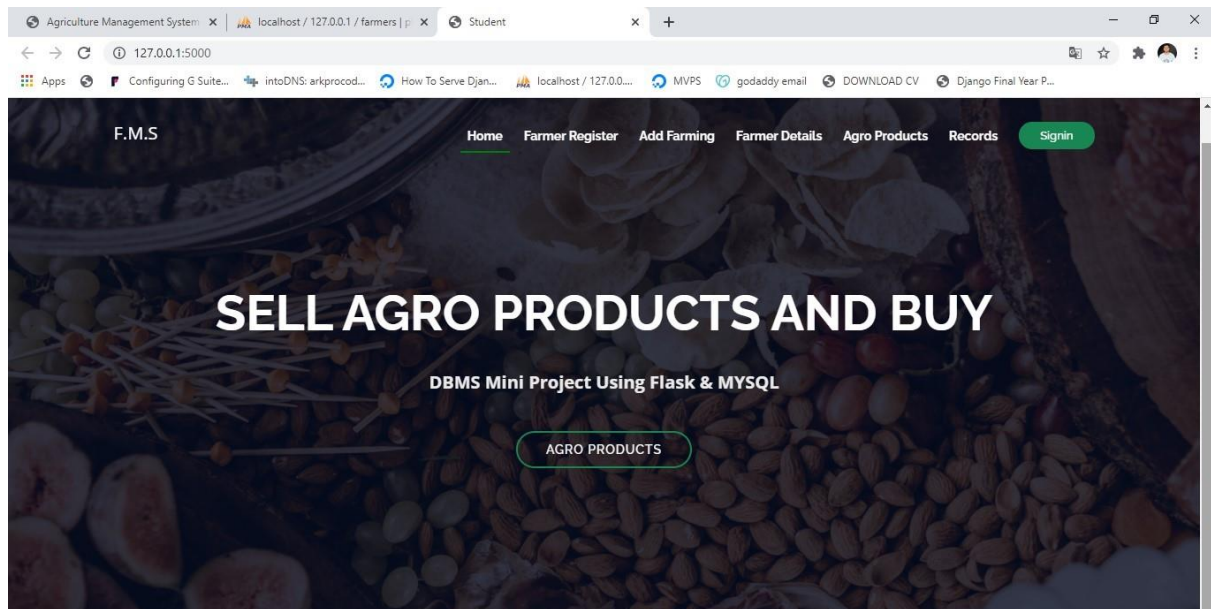
### **Procedures:**

Resets the price of all products for a specific farmer in the addagroproducts table.

```
DELIMITER $$  
CREATE PROCEDURE reset_product_price(IN productName VARCHAR(100))  
BEGIN  
    UPDATE addagroproducts  
    SET price = 0  
    WHERE productname = productName;  
END$$  
DELIMITER ;
```

# USER INTERFACE

## SIGN IN PAGE:



Agriculture Management System | localhost / 127.0.0.1 / farmers | Register Farmers Details

127.0.0.1:5000/register

Apps | Configuring G Suite... | intoDNS: arkprocod... | How To Serve Djan... | localhost / 127.0.0.1... | MVPS | godaddy email | DOWNLOAD CV | Django Final Year P...

F.M.S | Home | Farmer Register | Add Farming | Farmer Details | Agro Products | Records | Welcome test | Logout

## Register Farmers Details

Farmer Name

Adhar Number

Age

Select Gender

Phone Number

## REGISTRATION PAGE & PRODUCTS:

Agriculture Management System | localhost / 127.0.0.1 / farmers | Agro Products

127.0.0.1:5000/agroproducts

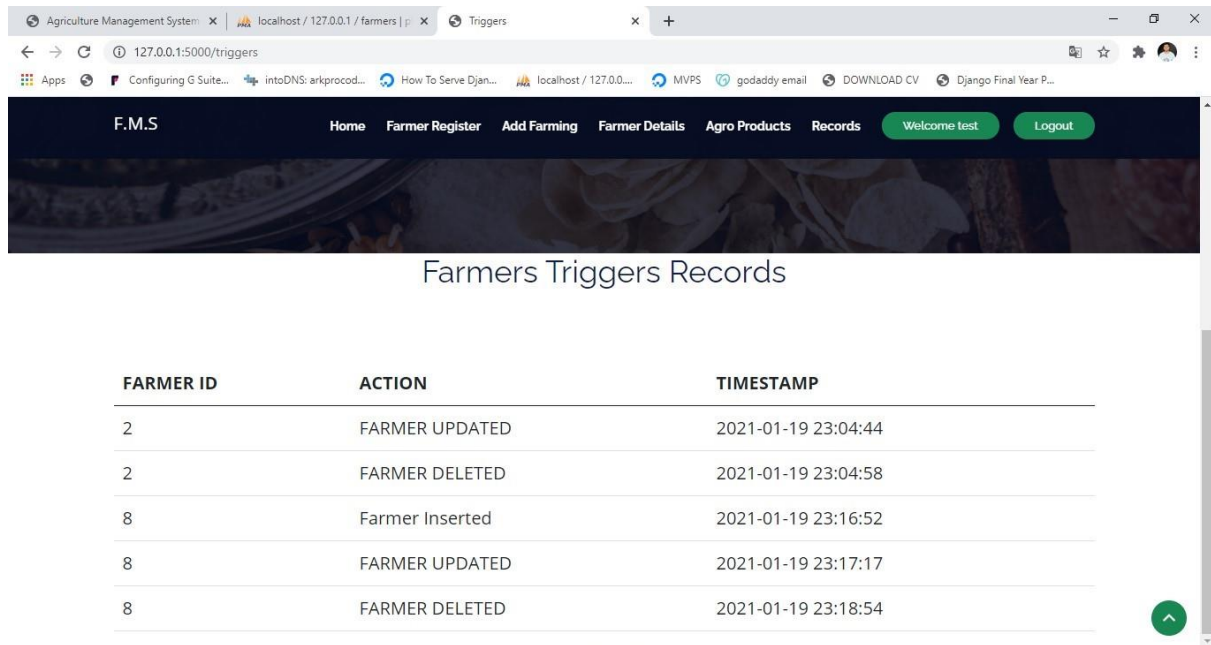
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## Agro Products

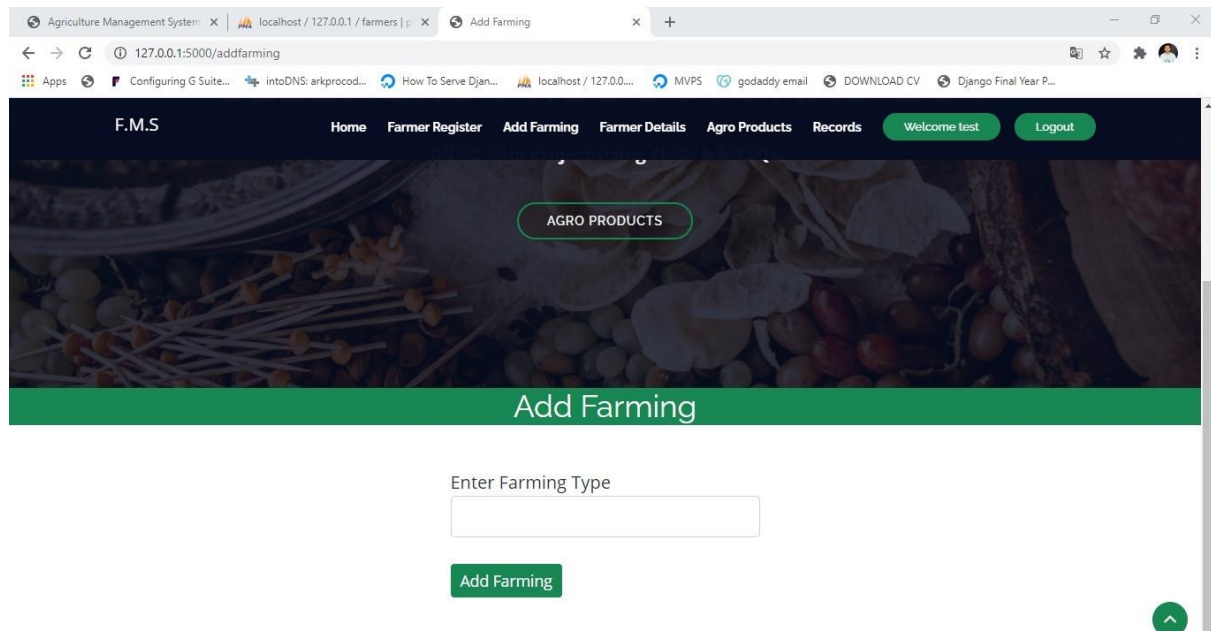
<p>GIRIJA CAULIFLOWER</p> <p><b>Price : 520</b></p> <p>Tips for Growing Cauliflower. Well drained medium loam and or sandy loam soils are suitable.</p> <p>Owner : test</p> <p>Email : test@gmail.com</p> <p>Purchase</p>	<p>COTTON</p> <p><b>Price : 563</b></p> <p>Cotton is a soft, fluffy staple fiber that grows in a boll, around the seeds of the cotton</p> <p>Owner : test</p> <p>Email : test@gmail.com</p> <p>Purchase</p>	<p>silk</p> <p><b>Price : 582</b></p> <p>silk is best business developed from cocoon for saries preparation and so on</p> <p>Owner : arkpro</p> <p>Email : arkpro@gmail.com</p> <p>Purchase</p>
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FARMER ID	ACTION	TIMESTAMP
2	FARMER UPDATED	2021-01-19 23:04:44
2	FARMER DELETED	2021-01-19 23:04:58
8	Farmer Inserted	2021-01-19 23:16:52
8	FARMER UPDATED	2021-01-19 23:17:17
8	FARMER DELETED	2021-01-19 23:18:54

## TRIGGERS RECORDS



Enter Farming Type

Add Farming



Agriculture Management System | localhost / 127.0.0.1 / farmers | Farmer Details

127.0.0.1:5000/farmerdetails

F.M.S Home Farmer Register Add Farming Farmer Details Agro Products Records Welcome test Logout

Farmer Details

Your Record Has Been Saved

FARMER					PHONE					ADD AGRO PRODUCT
RID	NAME	ADHAR NUMBER	AGE	GENDER	NUMBER	ADDRESS	FARMING	EDIT	DELETE	
9	mohit	857485748574	22	male	9986786453	banaglore	Seed Farming	Edit	Delete	ADD

## ADDING AGRO PRODUCTS

Agriculture Management System | localhost / 127.0.0.1 / farmers | Add AgroProducts

127.0.0.1:5000/addagroproduct

F.M.S Home Farmer Register Add Farming Farmer Details Agro Products Records Welcome test Logout

Farmer Email  
test@gmail.com

Product Name  
cotton

Product Description  
make silk sarees

Price  
500

Add Product

## CONCLUSION

FARM MANAGEMENT SYSTEM successfully implemented based on online selling which helps us in administrating the agroproducts user for managing the tasks performed in farmers. The project successfully used various functionalities of Xampp and python flask and also create the fully functional database management system for online portals.

Using MySQL as the database is highly beneficial as it is free to download, popular and can be easily customized. The data stored in the MySQL database can easily be retrieved and manipulated according to the requirements with basic knowledge of SQL.

With the theoretical inclination of our syllabus it becomes very essential to take the utmost advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Major Project “Farm Management System” was one of these opportunities. It gave us the requisite practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer engineer. The project from a personal point of view also helped us in understanding the following aspects of project development:

- The planning that goes into implementing a project.
- The importance of proper planning and an organized methodology.
- The key element of team spirit and co-ordination in a successful project.

## FUTURE ENHANCEMENT

- Enhanced database storage facility
- Enhanced user friendly GUI
- more advanced results systems

- online payments

