Shri Shivaji Education Society's , Amravati

College of Engineering and Technology, Akola

Department of Computer Science & Engineering

MINI PROJECT

A PROJECT REPORT

ON

"Farm Management System"

SUBMITTED BY

RUSHALI CHETAN RATHOD

Roll No : 55

Class : 3rd year (B)

Under the Guidance of

Prof. R. J. Deshmukh

Academic year 2025-2026

CERTIFICATE

This is to certify that the Project Work Entitled

"FARM MANAGEMENT SYSYTEM"

is a Bonafide work carried out in the fifth semester

By

Rushali Chetan Rathod

in partial fulfillment of the requirement for the degree of

Bachelor of Engineering in Computer Science & Engineering

during the academic year 2025-2026 under my guidance.

Prof. R. J. Deshmukh
Guide
Department of Computer Sci. & Engg.
College of Engineering & Technology
Akola

Dr. S. L. Satarkar
Head of Department
Department of Computer Sci & Engg.
College Of Engineering & Technology
Akola

Dr. P. V. Thorat
Principal
College of Engineering & Technology
Akola

Department of Computer Science & Engineering

College of Engineering & Technology,

Akola

2025- 2026

ACKNOWLEDGEMENT

I would like to take opportunity to acknowledge and express my gratitude

To the individual as well as department all of whom were instrumental in the successful completion of my project report thanks to the assistance and direction they provided.

First, I would like to thank the mentor **Prof. Rutuja Deshmukh** who served as a Guide throughout the course of the procedure as well as the duration of the time I Spent completing my study. They were an incredible source of assistance, support, and ideas for me draw upon during the entirely of the process of bringing a successful end to my project.

Being on the same line I express my deep sense of gratitude to **Dr. S. L. Satarkar , Head of Department CSE**. His role in the improvement of my study is recognized Because of the significant impact it had in the quality of the research. He devoted a considerable amount of time in order to provide me with informative remarks regarding my work, and encouraged me to keep putting in my best effort in order to bring the project to a successful completion as soon as possible.

Finally, I would like to thank **Dr. P. V. Thorat, Principle, COET, Akola** for Providing necessary facility during the period of working on this project work.

Thanks, are in order to all the colleagues and friends who knowingly or

Unknowingly helped me during this work.

Name: Rushali Chetan Rathod

Class: 5th Semester

Department: Computer Science & Engineering

INDEX :-

INTRODUCTION

Source Trace is collaborating with Small Farmers Agri-business consortium (SFACH) and Karnataka Horticulture Department, deploying its digital solutions to support the horticulture farmers of India. Karnataka Agriculture Department is committed to providing a responsive and effective mechanism for the welfare of farmers and farm-based communities and recognizes the need to harness the growing power of Information Technologies for the betterment of life of the farmers and management of Farmer Producer Organizations (FPOs) in Haryana. To deploy its digital solution, Source Trace is in the process of creating 100,000 farmer profiles. The system was developed using technologies such as, HTML, CSS ,JS and MySQL. PYTHON- FLASK, HTML and CSS are used to build the user interface and database was built using MySQL. The system is free of errors and very efficient and less time consuming due to the care taken to develop it. All the phases of software development cycle are employed and it is worthwhile to state that the system is very robust. Provision is made for future development in the system.

The farmers can sell their productions online and the buyer can purchase various agricultural products online. Buyer can send purchase request to check the quality of the product. After collecting all the farm produce from the farmers, it should be sold to the customers. This project covers these entries and the data collections. There are 2 types of users: Customer & Farmers. The login id and password must be required to login the system. The article and agro products section helps farmers to share their products and increase profitability.

OBJECTIVES:

- The main objective of the project is to design and develop a user friendly-system
- Easy to use and an efficient computerized system.
- To develop an accurate and flexible system, it will eliminate data redundancy.
- To study the functioning of Farm management System.
- To make a software fast in processing, with good user interface.
- To make software with good user interface so that user can change it and it should be used for a long time without error and maintenance.
- To provide synchronized and centralized farmer and seller database.
- Computerization can be helpful as a means of saving time and money.
- To provide better Graphical User Interface (GUI).
- Less chances of information leakage.
- Provides Security to the data by using login and password method.
- To provide immediate storage and retrieval of data and information.
- Improving arrangements for farmers co-ordination.
- Reducing loss.

LIMITATIONS:

- Small size of farm business: Due to fragmentation and subdivision of holding the average size of operational holdings is very small
- Less labour per unit areas is required to farm large areas, especially since expensive alterations to land (like terracing) are completely absent.
- Mechanisation can be used more effectively over large, flat areas

ABSTRACT

The main aim of developing “Farm Management System Project” application is to help farmers by providing all kinds agriculture related information in the site. “Farm Management System Project” is web application which helps farmers to share best practice farming processes. It helps farmers to improve their productivity and profitability. It enables farmers to sell their products online and farmers can purchase tools and seeds directly from seller. Farmers can view their profile and they can register, edit and delete data. The farmers can sell their productions online and the buyer can purchase various agricultural products online. Buyer can send purchase request to check the quality of the

Agro product through mails.

RESOURCES :

HARDWARE REQUIREMENTS:

- Computer with a 1.1 GHz or faster processor
- Minimum 2GB of RAM or more
- 2.5 GB of available hard-disk space
- 5400 RPM hard drive
- 1366 × 768 or higher-resolution display
- DVD-ROM drive

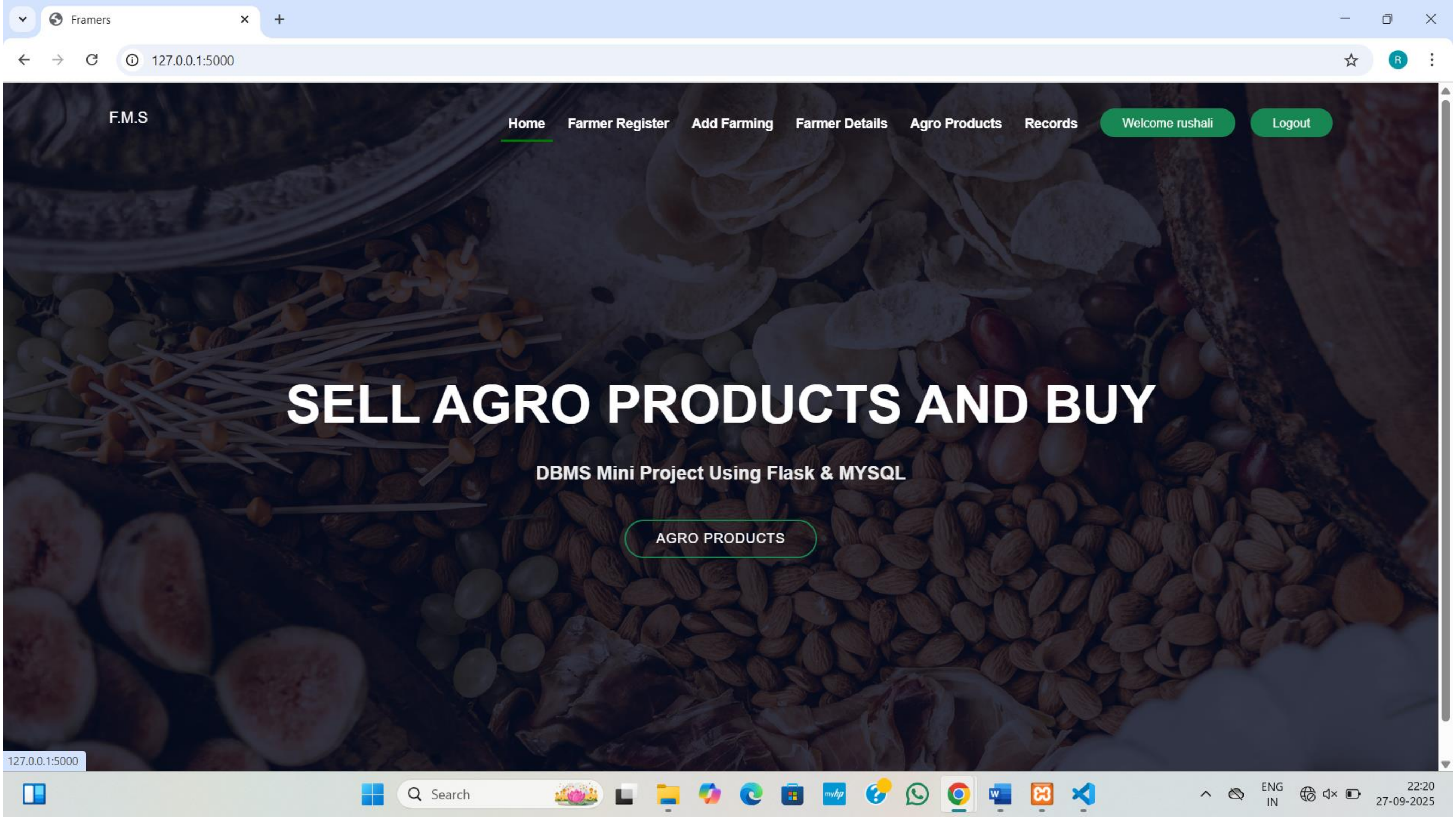
SOFTWARE USE:

XAMPP

DATABASE USED

MY SQL

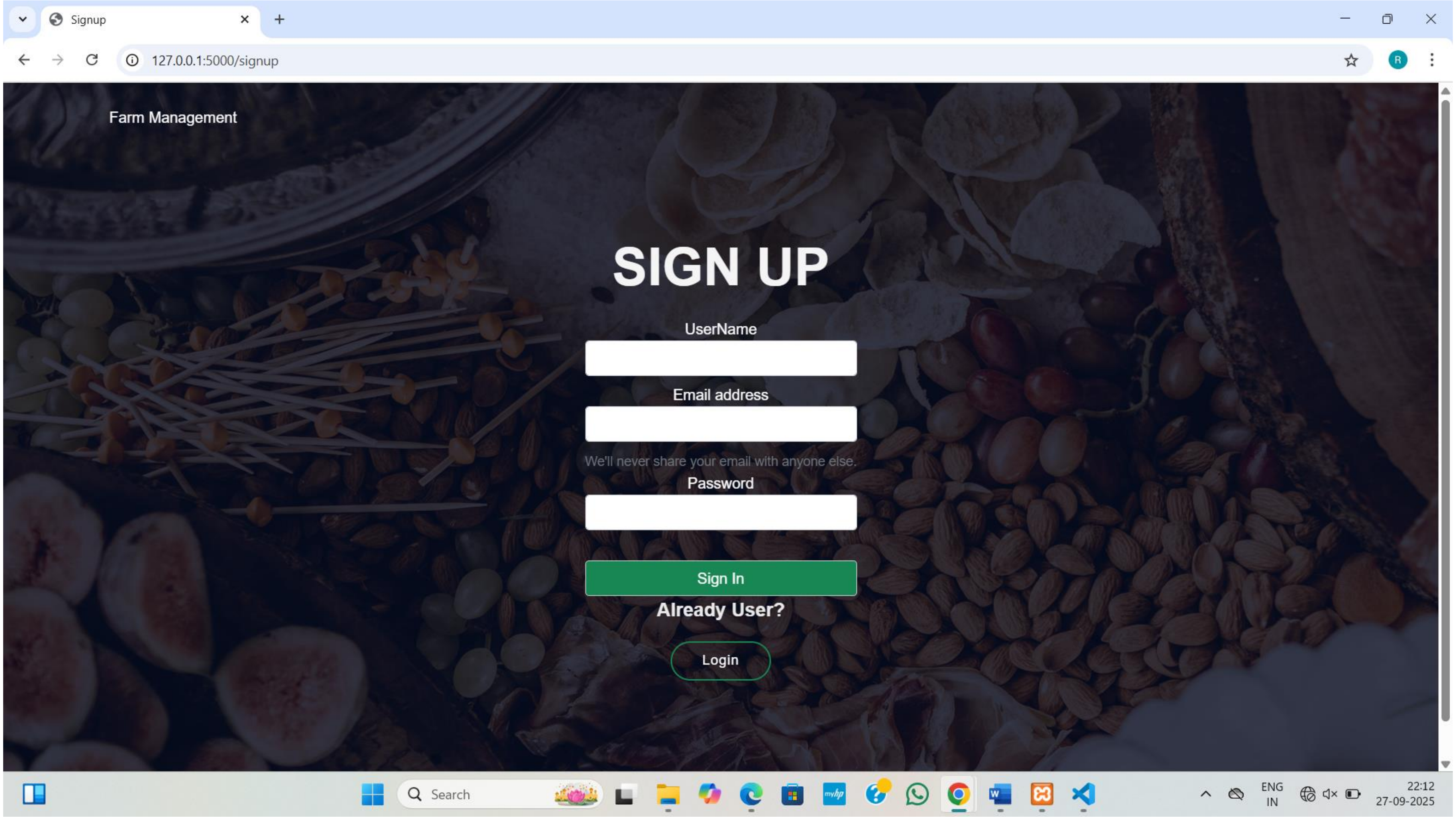
PROJECT STRUCTURE :



SELL AGRO PRODUCTS AND BUY

DBMS Mini Project Using Flask & MYSQL

Fig : Home Page



SIGN UP

UserName

Email address

We'll never share your email with anyone else.

Password

Already User?

Fig : Sign in Page

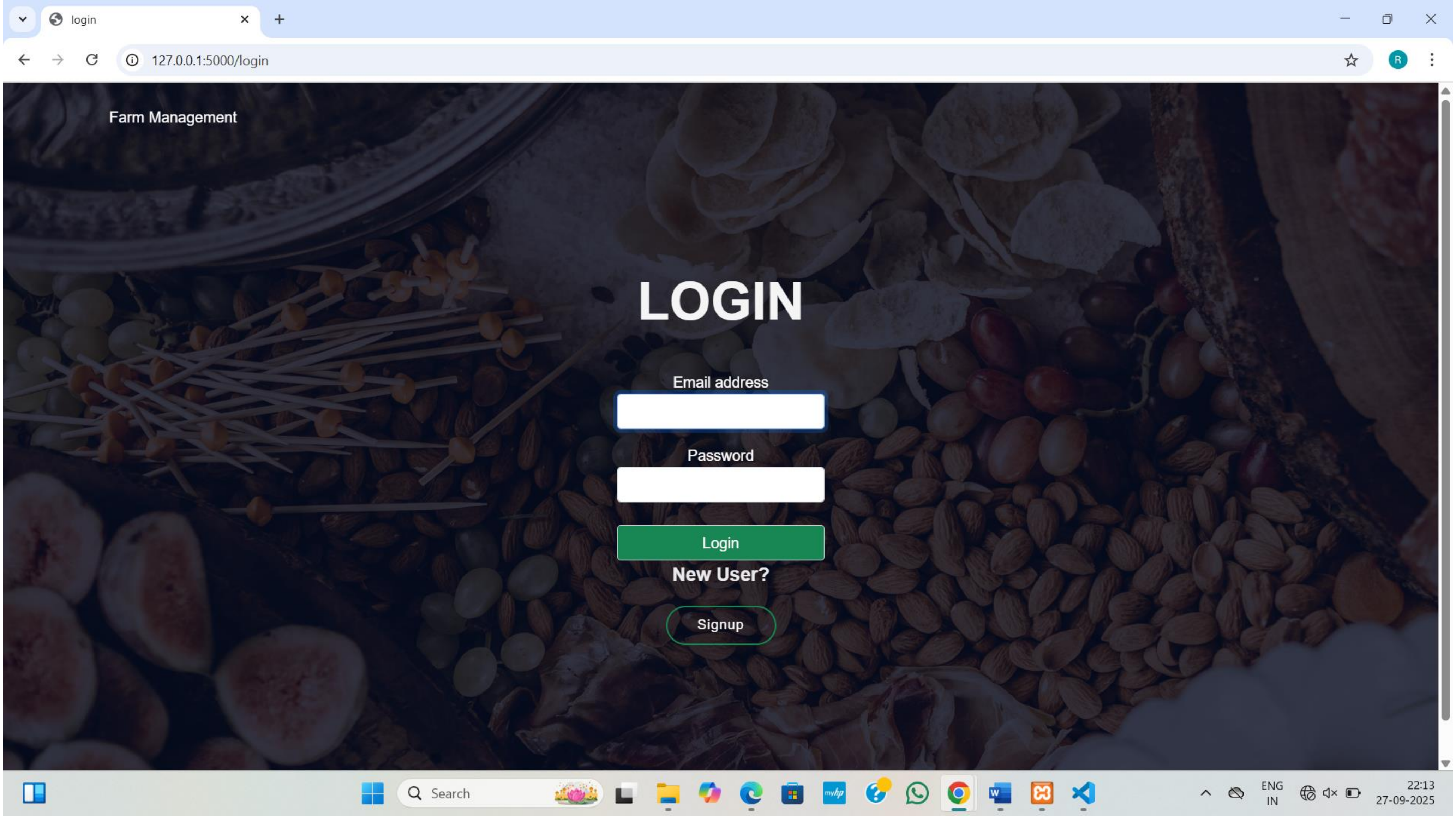


Fig : Login Page

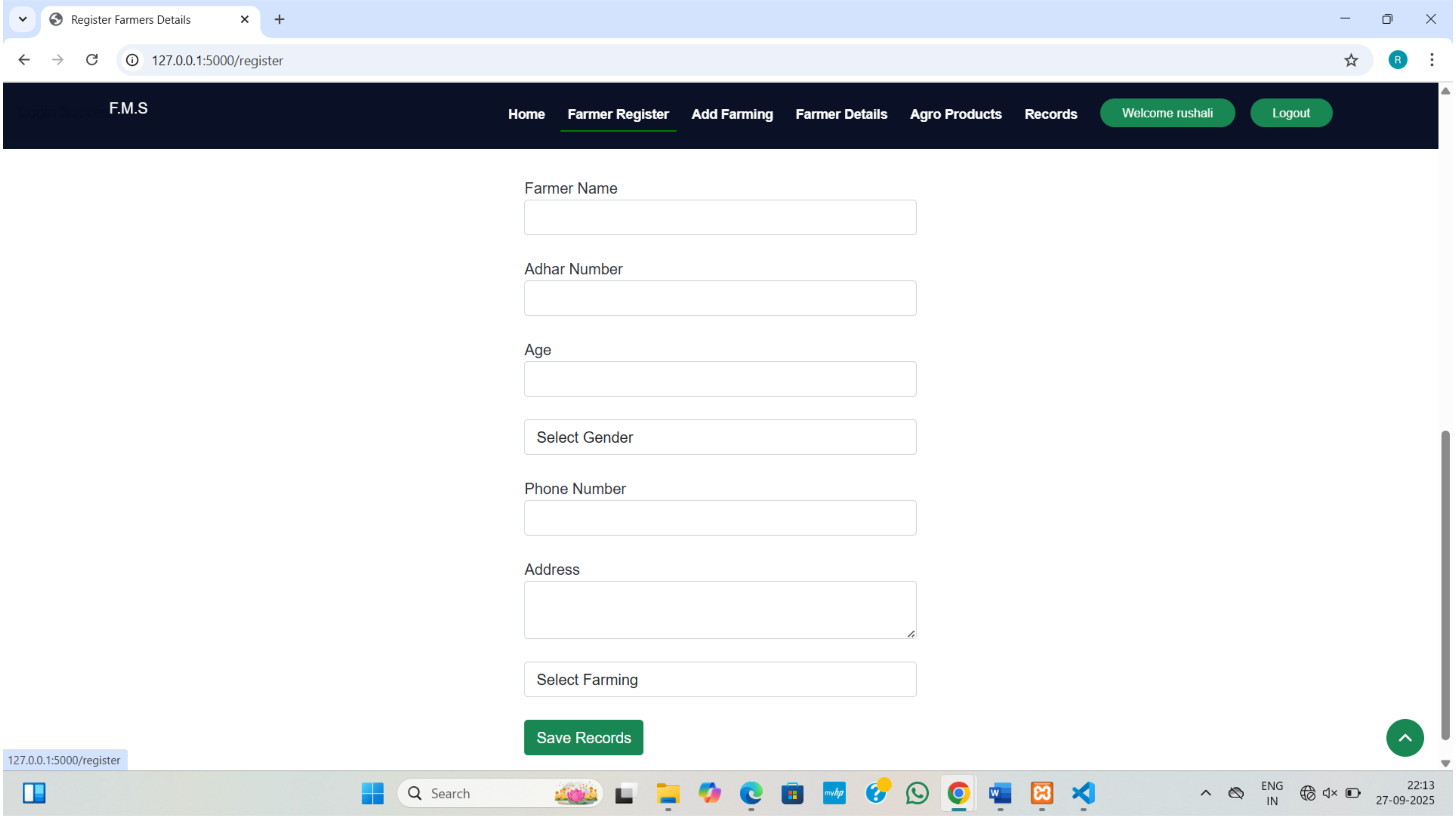
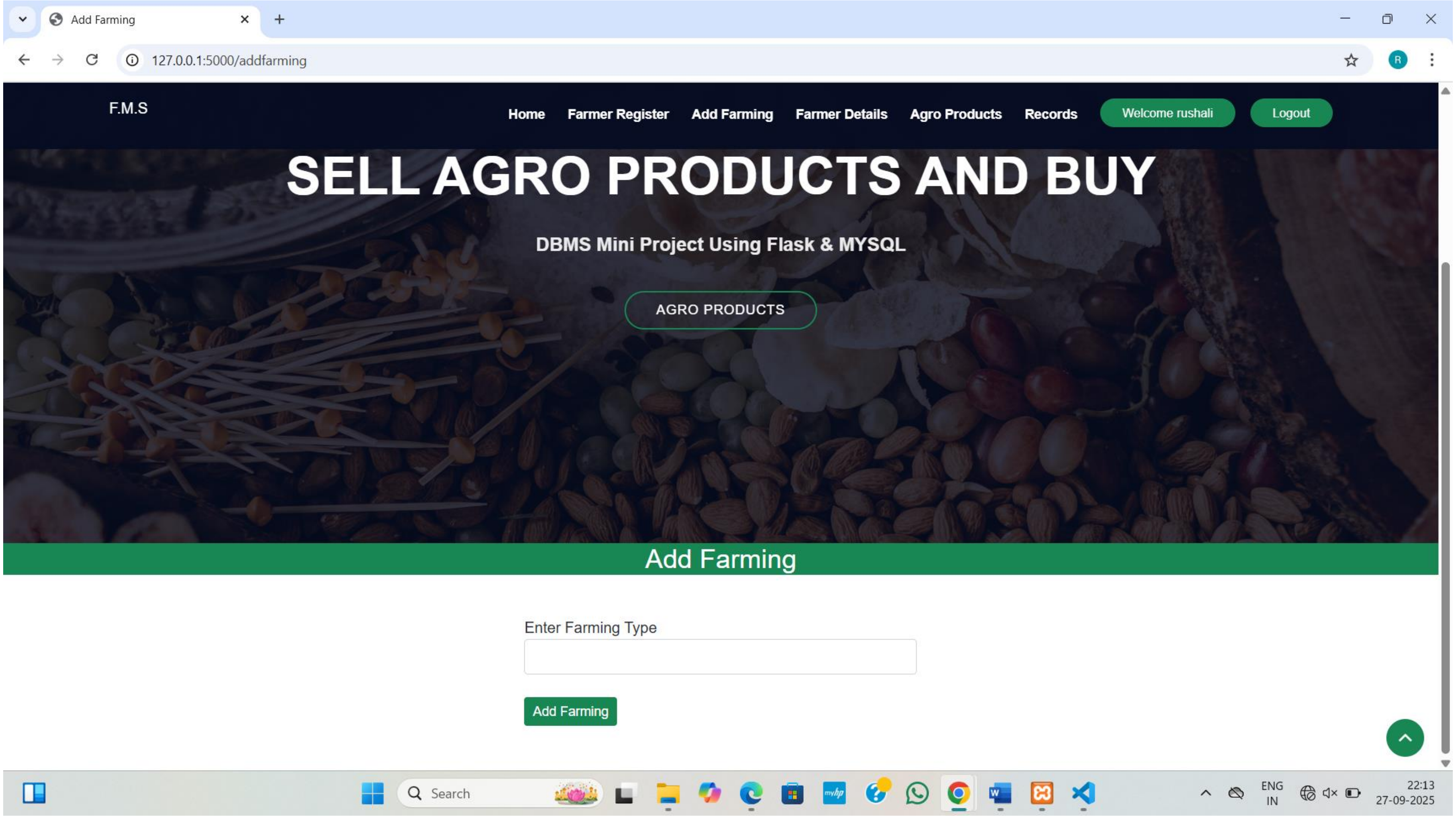


Fig : Farmer Registration Page



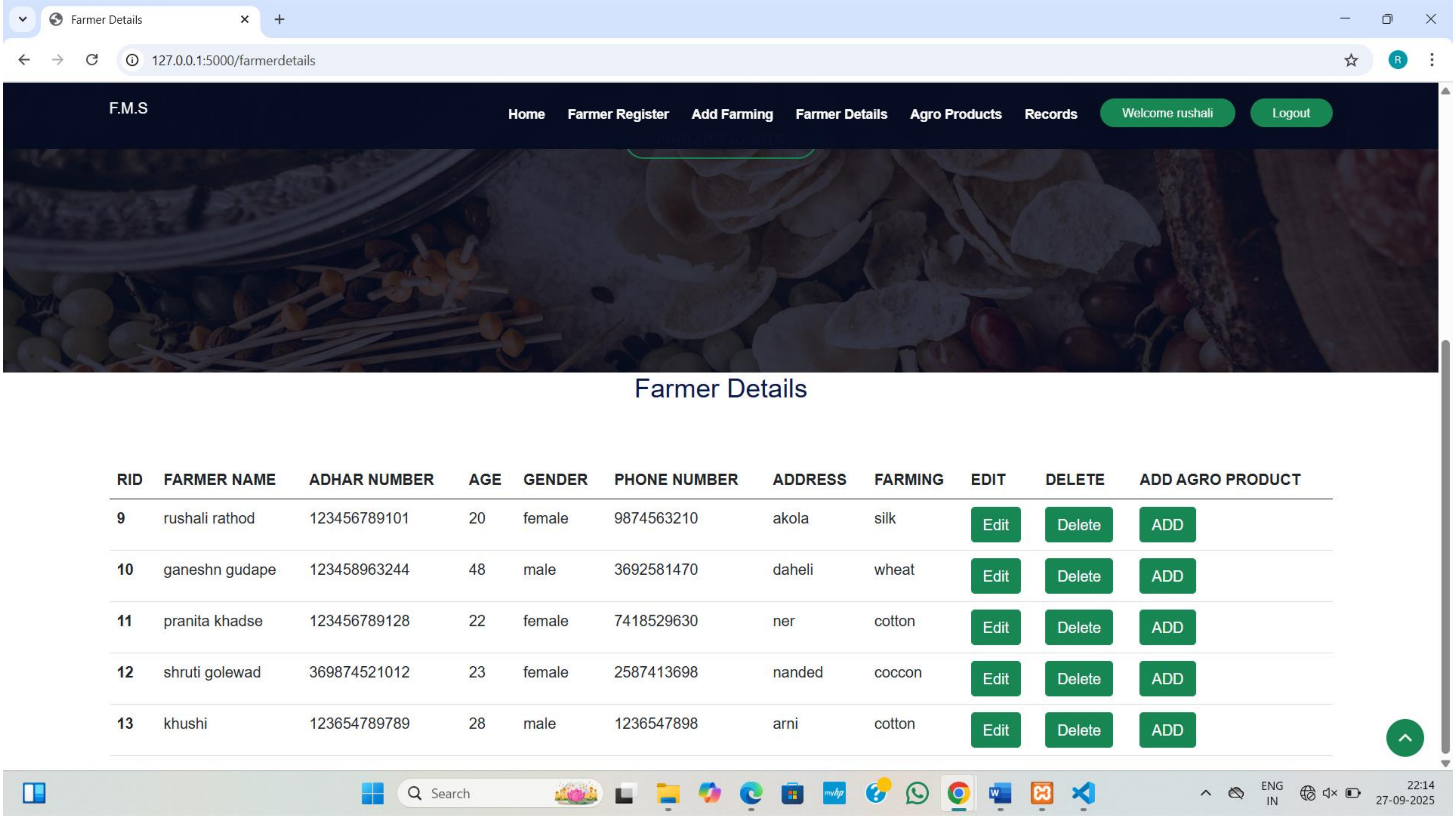
SELL AGRO PRODUCTS AND BUY

DBMS Mini Project Using Flask & MYSQL

Add Farming

Enter Farming Type

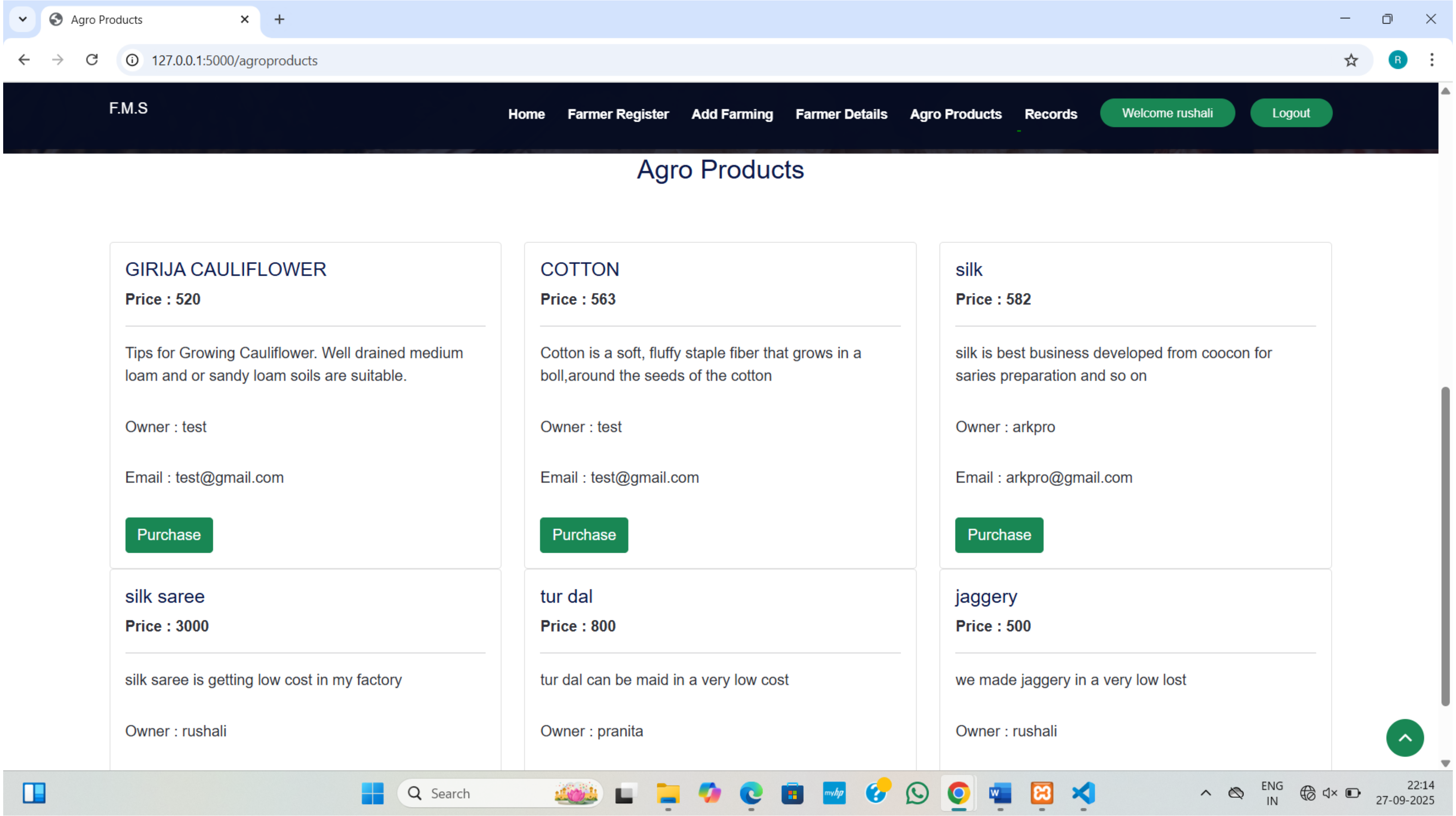
Fig : Add Farming Page



Farmer Details

RID	FARMER NAME	ADHAR NUMBER	AGE	GENDER	PHONE NUMBER	ADDRESS	FARMING	EDIT	DELETE	ADD AGRO PRODUCT
9	rushali rathod	123456789101	20	female	9874563210	akola	silk	Edit	Delete	ADD
10	ganeshn gudape	123458963244	48	male	3692581470	daheli	wheat	Edit	Delete	ADD
11	pranita khadse	123456789128	22	female	7418529630	ner	cotton	Edit	Delete	ADD
12	shruti golewad	369874521012	23	female	2587413698	nanded	coccon	Edit	Delete	ADD
13	khushi	123654789789	28	male	1236547898	arni	cotton	Edit	Delete	ADD

Fig : Farmers Details Page



Agro Products

GIRIJA CAULIFLOWER
Price : 520

Tips for Growing Cauliflower. Well drained medium loam and or sandy loam soils are suitable.

Owner : test

Email : test@gmail.com

Purchase

COTTON
Price : 563

Cotton is a soft, fluffy staple fiber that grows in a boll,around the seeds of the cotton

Owner : test

Email : test@gmail.com

Purchase

silk
Price : 582

silk is best business developed from coocon for saries preparation and so on

Owner : arkpro

Email : arkpro@gmail.com

Purchase

silk saree
Price : 3000

silk saree is getting low cost in my factory

Owner : rushali

tur dal
Price : 800

tur dal can be maid in a very low cost

Owner : pranita

jaggery
Price : 500

we made jaggery in a very low lost

Owner : rushali

Fig : Agro Products Page

PLATFORM :

THIS PROJECT IS DEVELOPED ON XAMPP :

XAMPP is one of the widely used cross-platform web servers, which helps developers to create and test their programs on a local webservers . It was developed by the **Apache Friends** , and its native source code can be revised or modified by the audience . It consists of **Apache Friends HTTP ,my sql interpreter** for the different programming languages like PHP , css , html.

XAMPP is an open source software package that provides a convenient and easy-to-install environment for web development and testing . The name “XAMPP” is an acronym that stands for “**Cross-platform, Apache, MySQL**”. It includes several components:

Apache: XAMPP includes the Apache HTTP Server , which is one of the most widely used web servers in the world. Apache is used to serve web content and handle web requests.

MySQL: By default, XAMPP includes either MariaDB or MySQL which are popular relational database management systems. You can choose which one to use when setting up XAMPP

CSS: Cascading Style Sheet(CSS) is a stylesheet language used to describe the presentation of a document written in HTML. CSS describes how elements should be rendered on screen , on paper, in speech, or on other media.

DATABASE USED IN PROJECT

MYSQL

MySQL is free and open source.

MySQL is a widely used relational database management system (RDBMS).

MySQL is ideal for both small and large applications.

FRONTED USED IN PROJECT –

HTML, CSS, Java Script,

- **HTML (Hypertext Markup Language) :** HTML is the backbone of every web page. It defines the structure and content of your web page. You'll use HTML to create elements like headings, paragraphs, images, and links.
- **CSS (Cascading Style Sheets) :** CSS is used to control the visual presentation of your web page. We can defines style for fonts, colors , layouts, and animations. CSS framework like Bootstrap and foundation can help you quickly create responsive and visually appealing designs.
- **JAVA SCRIPT :** Java Script is a high-level ,interpreted, object-oriented programming language that is primarily used to make web pages interactive ,dynamic , and user-friendly.

BACKEND USED IN PROJECT –

Python flask (Python) , SQL Alchemy

- **PYTHON FLASK:** Flask is a web framework written in Python. It helps you create websites, web applications, easily. It's called a micro-framework because it provides only the essentials tools and you can add extra features using extensions.
- **SQL Alchemy :** SQL Alchemy is a Python library used for working with databases. With SQL Alchemy , you can use databases like SQLite , My SQL, Oracle or SQL Server.

DATABASE CONNECTION CODE:

```
# MY db connection
local_server= True
app = Flask(__name__)
app.secret_key='harshithbhaskar'
 # this is for getting unique user access
login_manager=LoginManager(app)
```

```
login_manager.login_view='login'
 @login_manager.user_loader
 def load_user(user_id):
 return User.query.get(int(user_id))
 #
app.config['SQLALCHEMY_DATABASE_URL']='mysql://username:password@localhost/databas_table_ name'
app.config['SQLALCHEMY_DATABASE_URI']='mysql://root:@localhost/farmers'
db=SQLAlchemy(app)
# here we will create db models that is tables
 class Test(db.Model):
id=db.Column(db.Integer,primary_key=True)
name=db.Column(db.String(100))
 class Farming(db.Model):
fid=db.Column(db.Integer,primary_key=True)
farmingtype=db.Column(db.String(100))
class Addagroproducts(db.Model):
username=db.Column(db.String(50))
email=db.Column(db.String(50))
 pid=db.Column(db.Integer,primary_key=True)
 productname=db.Column(db.String(100))
productdesc=db.Column(db.String(300))
price=db.Column(db.Integer)
 class Trig(db.Model):
id=db.Column(db.Integer,primary_key=True)
fid=db.Column(db.String(100))
action=db.Column(db.String(100))
 timestamp=db.Column(db.String(100))
class User(UserMixin,db.Model):
id=db.Column(db.Integer,primary_key=True)
username=db.Column(db.String(50))
 email=db.Column(db.String(50),unique=True)
 password=db.Column(db.String(1000))
class Register(db.Model):
```

```
rid=db.Column(db.Integer,primary_key=True)
farmername=db.Column(db.String(50))
adharnumber=db.Column(db.String(50))
 age=db.Column(db.Integer)
 gender=db.Column(db.String(50))
 phonenumber=db.Column(db.String(50))
 address=db.Column(db.String(50))
farming=db.Column(db.String(50))
def index(): return render_template('index.html')
@app.route('/farmerdetails')
 @login_required
def farmerdetails():
query=db.engine.execute(f"SELECT * FROM ` register` ")
 return render_template('farmerdetails.html',query=query)
 @app.route('/agroproducts')
def agroproducts():
query=db.engine.execute(f"SELECT * FROM ` addagroproducts` ")
return render_template('agroproducts.html',query=query)
@app.route('/addagroproduct',methods=['POST','GET'])
@login_required
 def addagroproduct():
 if request.method=="POST":
 username=request.form.get('username')
email=request.form.get('email')
 productname=request.form.get('productname')
productdesc=request.form.get('productdesc')
 price=request.form.get('price')
products=Addagroproducts(username=username,email=email,productname=productname
,productdesc=prod
uctdesc,price=price)
db.session.add(products)
db.session.commit()
flash("Product Added","info")
return redirect('/agroproducts')
return render_template('addagroproducts.html')
 @app.route('/triggers')
@login_required def triggers():
query=db.engine.execute(f"SELECT * FROM ` trig` ")
return render_template('triggers.html',query=query)
@app.route('/addfarming',methods=['POST','GET'])
 @login_required def addfarming():
if request.method=="POST":
farmingtype=request.form.get('farming')
query=Farming.query.filter_by(farmingtype=farmingtype).
first() if query:
flash("Farming Type Already Exist","warning")
return redirect('/addfarming')
dep=Farming(farmingtype=farmingtype)
db.session.add(dep)
db.session.commit()
 flash("Farming Addes","success")
return render_template('farming.html')
@app.route("/delete/",methods=['POST','GET'])
@login_required def delete(rid):
 db.engine.execute(f"DELETE FROM ` register`  WHERE ` register` .` rid` ={rid}")
flash("Slot Deleted Successful","danger")
return redirect('/farmerdetails')
 @app.route("/edit/",methods=['POST','GET'])
 @login_required def edit(rid):
farming=db.engine.execute("SELECT * FROM ` farming` ")
posts=Register.query.filter_by(rid=rid).
first() if request.method=="POST":
farmername=request.form.get('farmername')
adharnumber=request.form.get('adharnumber')
age=request.form.get('age') gender=request.form.get('gender')
phonenumber=request.form.get('phonenumber')
address=request.form.get('address')
 farmingtype=request.form.get('farmingtype')
```

```
query=db.engine.execute(f"UPDATE `register` SET
`farmername`='{farmername}',`adharnumber`='{adharnumber}',`age`='{age}',`gender`='{g
ender}',`
phonenu mber`='{phonenumber}',
`address`='{address}',
`farming`='{farmingtype}'")
flash("Slot is Updates","success")
 return redirect('/farmerdetails') return
render_template('edit.html',posts=posts,farming=farming)
@app.route('/signup',methods=['POST','GET'])
 def signup(): if request.method == "POST":
 username=request.form.get('username')
 email=request.form.get('email')
 password=request.form.get('password') print(username,email,password)
user=User.query.filter_by(email=email).
first() if user: flash("Email Already Exist","warning")
return render_template('/signup.html')
encpassword=generate_password_hash(password)
new_user=db.engine.execute(f"INSERT INTO `user` (`username`,`email`,`password`)
VALUES ('{username}','{email}','{encpassword}')")
 # this is method 2 to save data in db
 # newuser=User(username=username,
email=email,password=encpassword)
 # db.session.add(newuser)
# db.session.commit()
flash("Signup Succes Please Login","success")
return render_template('login.html')
return render_template('signup.html')
@app.route('/login',methods=['POST','GET']) def login():
 if request.method == "POST":
email=request.form.get('email')
 password=request.form.get('password')
user=User.query.filter_by(email=email).
first() if user and check_password_hash(user.password,password):
 login_user(user) flash("Login Success","primary")
return redirect(url_for('index')) else:
flash("invalid credentials","danger")
 return render_template('login.html')
 return render_template('login.html')
 @app.route('/logout')
 @login_required def logout():
 logout_user() flash("Logout SuccessFul","warning")
return redirect(url_for('login'))
 @app.route('/register',methods=['POST','GET'])
 @login_required def register():
 farming=db.engine.execute("SELECT * FROM `farming` ")
if request.method=="POST":
farmername=request.form.get('farmername')
adharnumber=request.form.get('adharnumber')
age=request.form.get('age') gender=request.form.get('gender')
phonenumber=request.form.get('phonenumber')
address=request.form.get('address')
farmingtype=request.form.get('farmingtype')
query=db.engine.execute(f"INSERT INTO `register`
(`farmername`,`adharnumber`,`age`,`gender`,`phonenumber`,`address`,`farming`)
VALUES('{farmername}','{adharnumber}','{age}','{gender}','{phonenumber}','{address}','{farmingt
ype}')")
flash("Your Record Has Been Saved","success")
return redirect('/farmerdetails')
 return render_template('farmer.html',farming=farming)
 @app.route('/test') def test(): try: Test.query.all()
 return 'My database is Connected' except:
 return 'My db is not Connected'
 app.run(debug=True)
```

STEPS FOR CONNECTION BETWEEN PYTHON PROGRAM AND DATABASE XAMPP –

1. Install XAMPP.
2. Start Apache and MySQL.
3. Create a database
4. Run the Python code.
5. Open a web browser and go to http://127.0.0.1:5000 to access the web interface. Log in and create a new database.

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 atmost advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Minor 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.