



Faculty of Technology
Dharmsinh Desai University, Nadiad
Department of Computer Engineering
B. Tech. CE Semester – IV

Project Title: E-Commerce Website
(Online Exchange System)

By:

- 1) Dhruv Patel, Roll No: CE091, ID-19CEUBG166**
- 2) Himanshu Parmar, Roll No: CE087, ID-19CEUSG047**

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1.Abstract

- E-commerce is an emerging and fast-growing technique which is used to buy and sell categorized product or services, generate report and track history of every customer. In the past 15 years, E-commerce businesses have touched the skies in terms of growth. E-commerce where a normal business integrated with technology is done globally by buying and selling goods on the internet.
- Start a business with E-commerce has a lesser cost than an offline store. Also, there are no restrictions on opening-closing times. Easy access to new customers as anyone from anywhere can access the online store. E-commerce can study consumer behaviour from their usage and plan their development strategies in accordance.
- E-commerce is a web-based application or mobile application implemented for easy to access product or services around the corner of world, buy, sell, chat, transact, get service and maintains records. People of this developing era can now do shopping at the fingertips while sitting on their couch with reduced physical efforts. Customers get a wide variety of products to choose from. Moreover, it is much convenient and safe as we can see from this **COVID-19** pandemic period.

2 .Introduction

“E-commerce Website” is a place where customers can shop any kind of product from their devices which they shop from offline markets like clothing, electronics, groceries etc. To satisfy shopping experience of customers we have implemented a number of features.

Features:

1. First it's a completely dynamic website
2. New products can be added and removed as well.
3. Users can see reviews of particular products by other users and give one review as well.
4. Buyer can directly chat with seller.

2.1 Technologies/Tools:

- Python
- Django Web Framework
- MySQL Database
- HTML
- CSS
- Bootstrap

Tools:

- Visual Studio Code
- Git/GitHub

Platform:

- Local Server

3. Software Requirement Specification

End Users:

1. Admin
2. Buyers
3. Sellers

Functional Requirements:

R1 Registration

R.1.1] Signing up user

- The users who are using the website for the first time are added to the database

Input:

- Name, Email Id, phone no, address, username, password.

Output:

- User is redirected to the homepage and user info is added into the database.

R.1.2] Login by user

- Existing user can login with his/her credentials. Authorization is done by admin.

Input:

- Username/Password.

Output:

- Opens up homepage of the website and showing username on navigation bar.

R2. Manage Products

R.2.1] Sell Product

- seller can add a new product on the website.

Input:

- Product details, Image, Price, location, owner information etc.

Output:

- Redirect to homepage and showing the added item.

R.2.2] Remove Product

- Only Admin can remove product from the website.

Input:

- Admin can remove item using admin panel. click to remove data.

Output:

- Product will be remove from the database.

R.2.3] Modify Product

- Admin can modify details of an existing product on the website.

Input:

- Click to edit product.

Output:

- Modifications are performed on the database with a confirmation message.

R4 Search and View Product

R.4.1] Search

- Customer can write product name and this function show the item which he/she is looking for.

Input:

- In search box write product name.

Output:

- Loads total products and display it on screen.

R.4.2] Quick-view

- Customer can view details of the product

Input:

- Click on the **Quickview** button.

Output:

- Shows all the details of product like Price, Address, Description, Product name etc.

R5 Manage Cart

R.5.4] Contact Now

- Contact to buyer and buy the item.

Input:

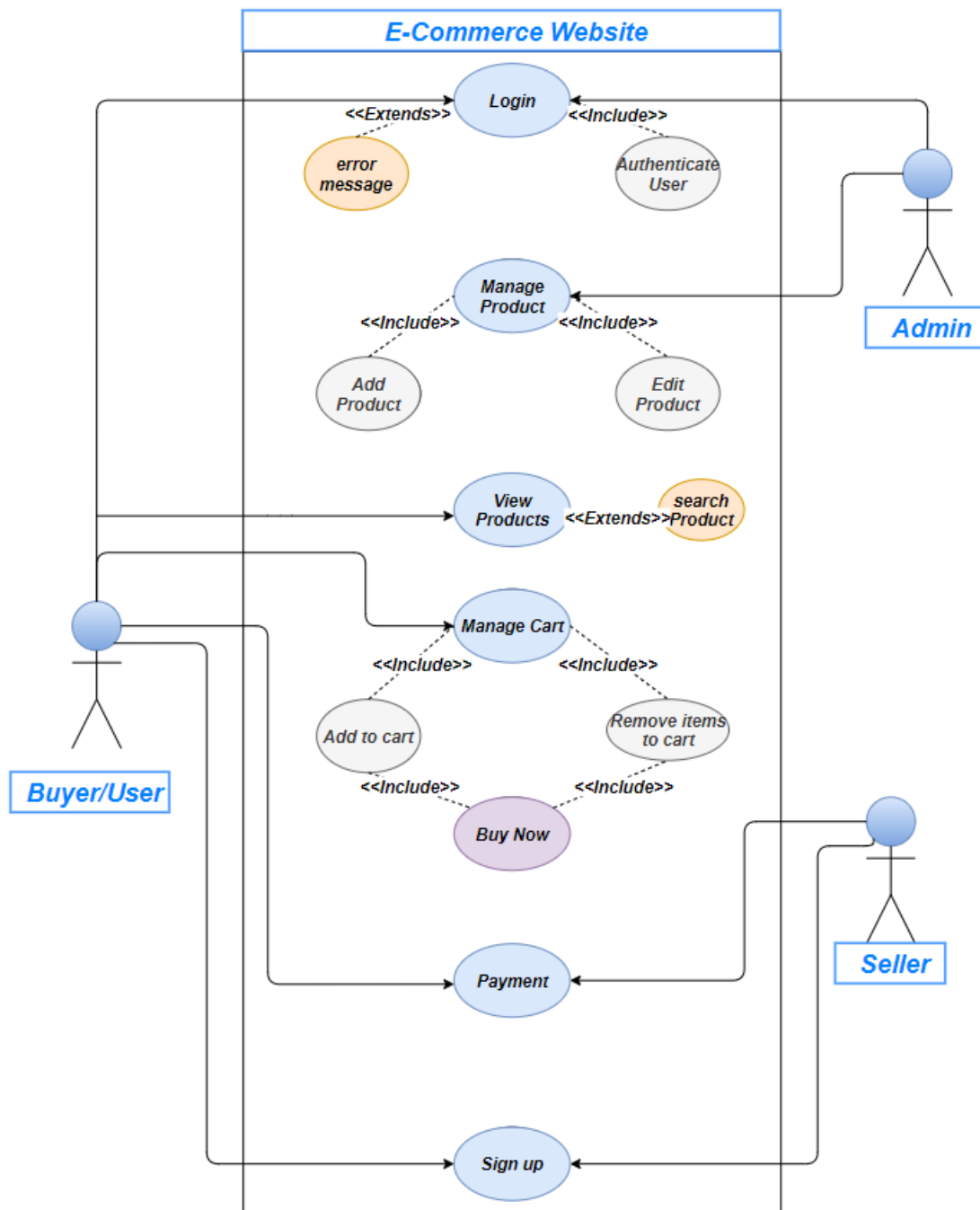
- Click on the proceed to checkout button.

Output:

- Redirects buyer to another web-page (Of place order).

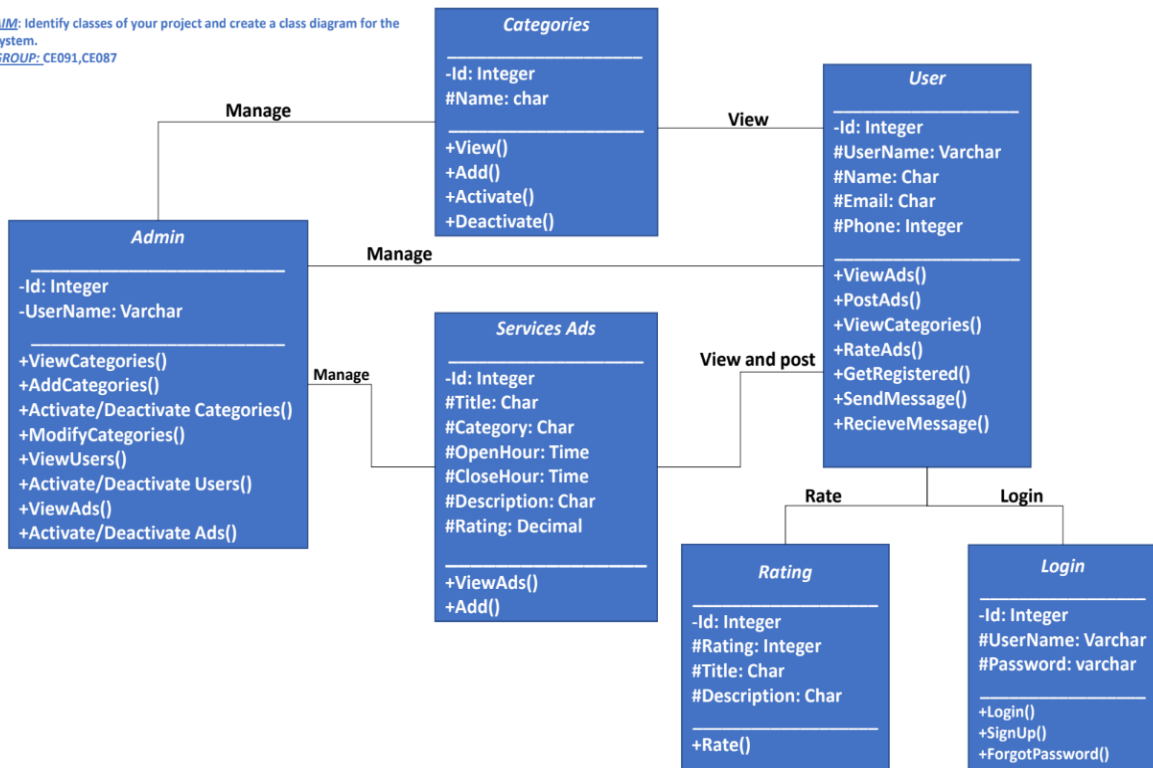
4.Design Documents

I. Use Case Diagram



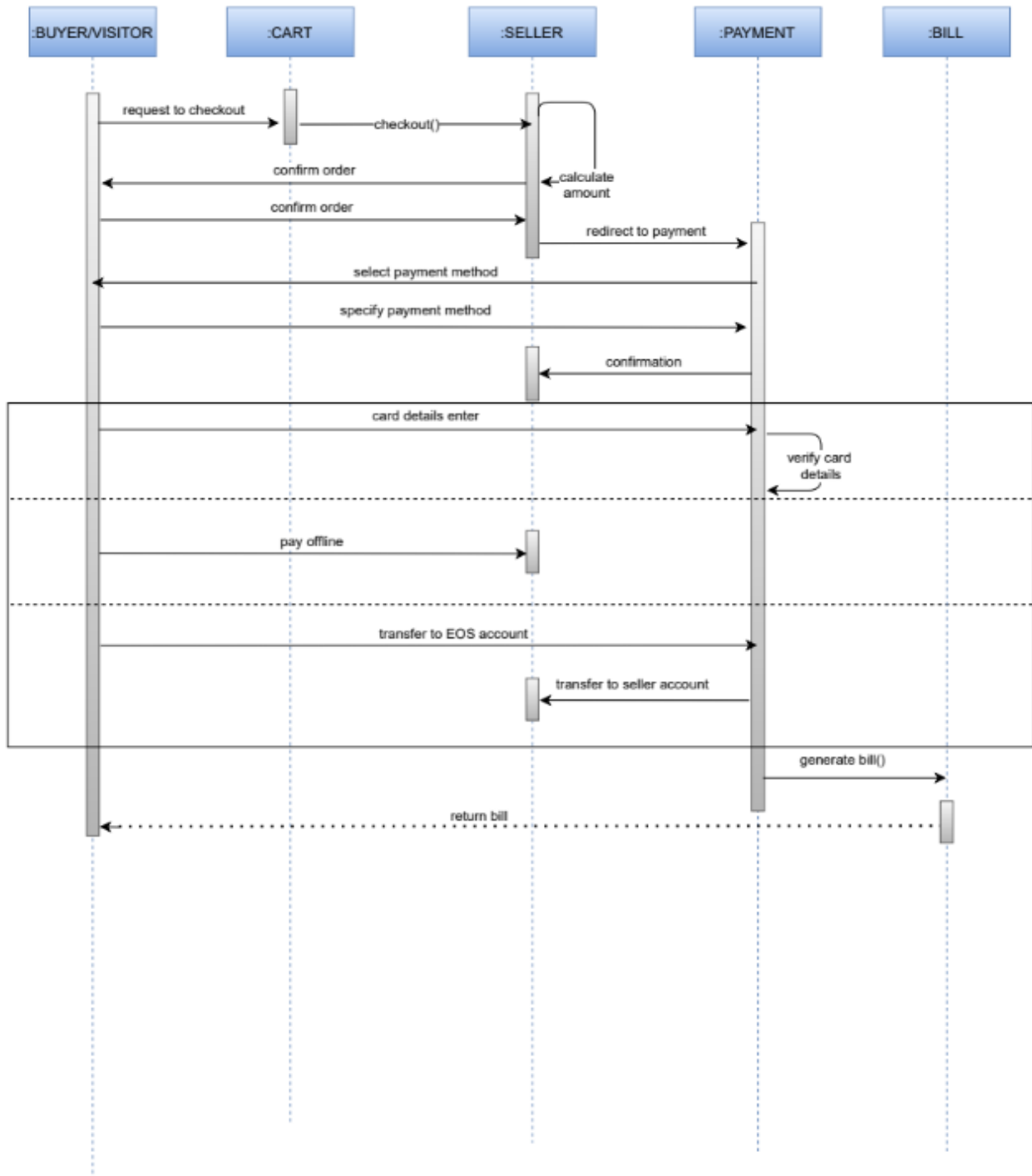
II. Class Diagram

Aim: Identify classes of your project and create a class diagram for the system.
GROUP: CE091, CE087

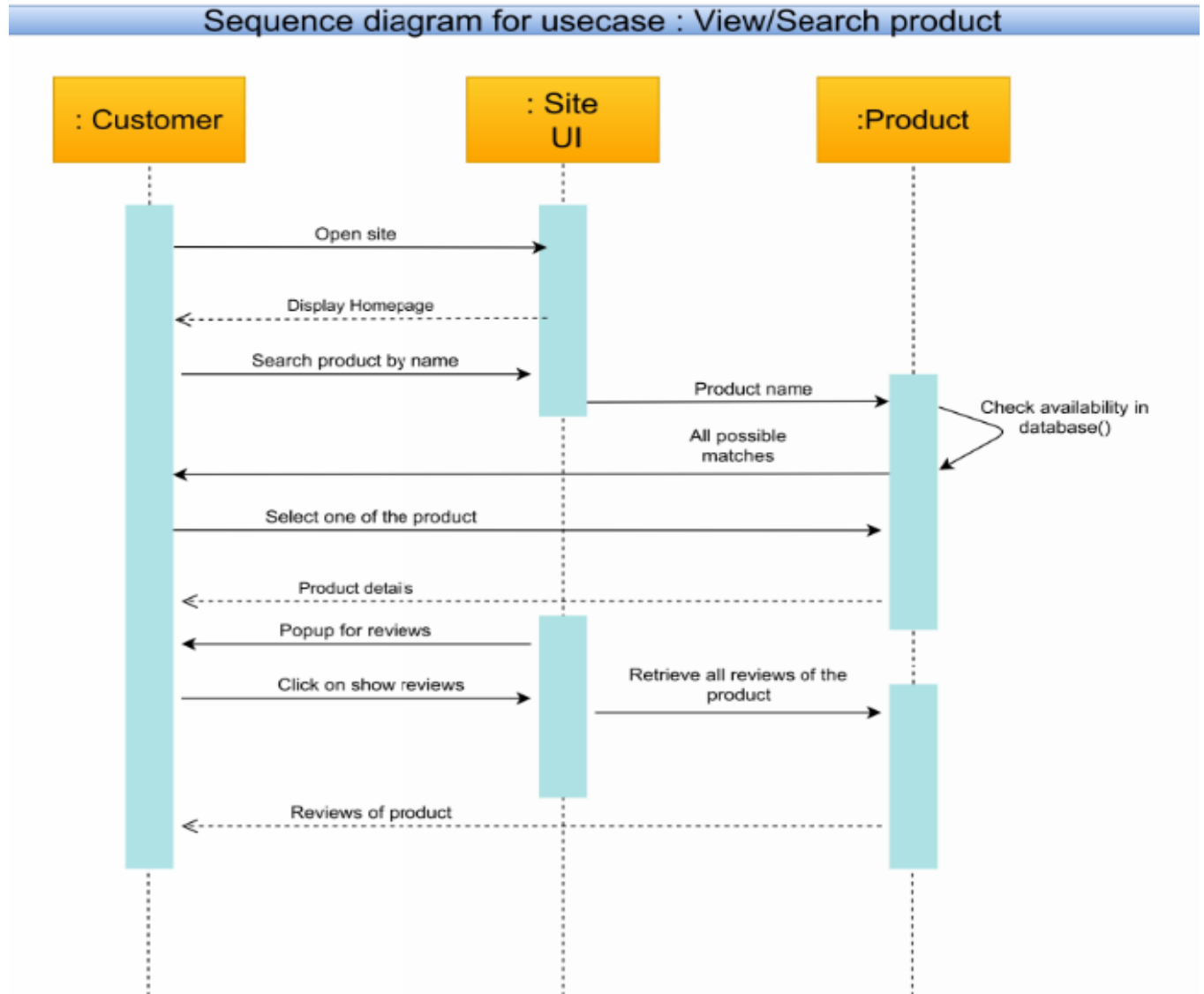


III. Sequence Diagram(1)

sequence diagram for buying product from the seller

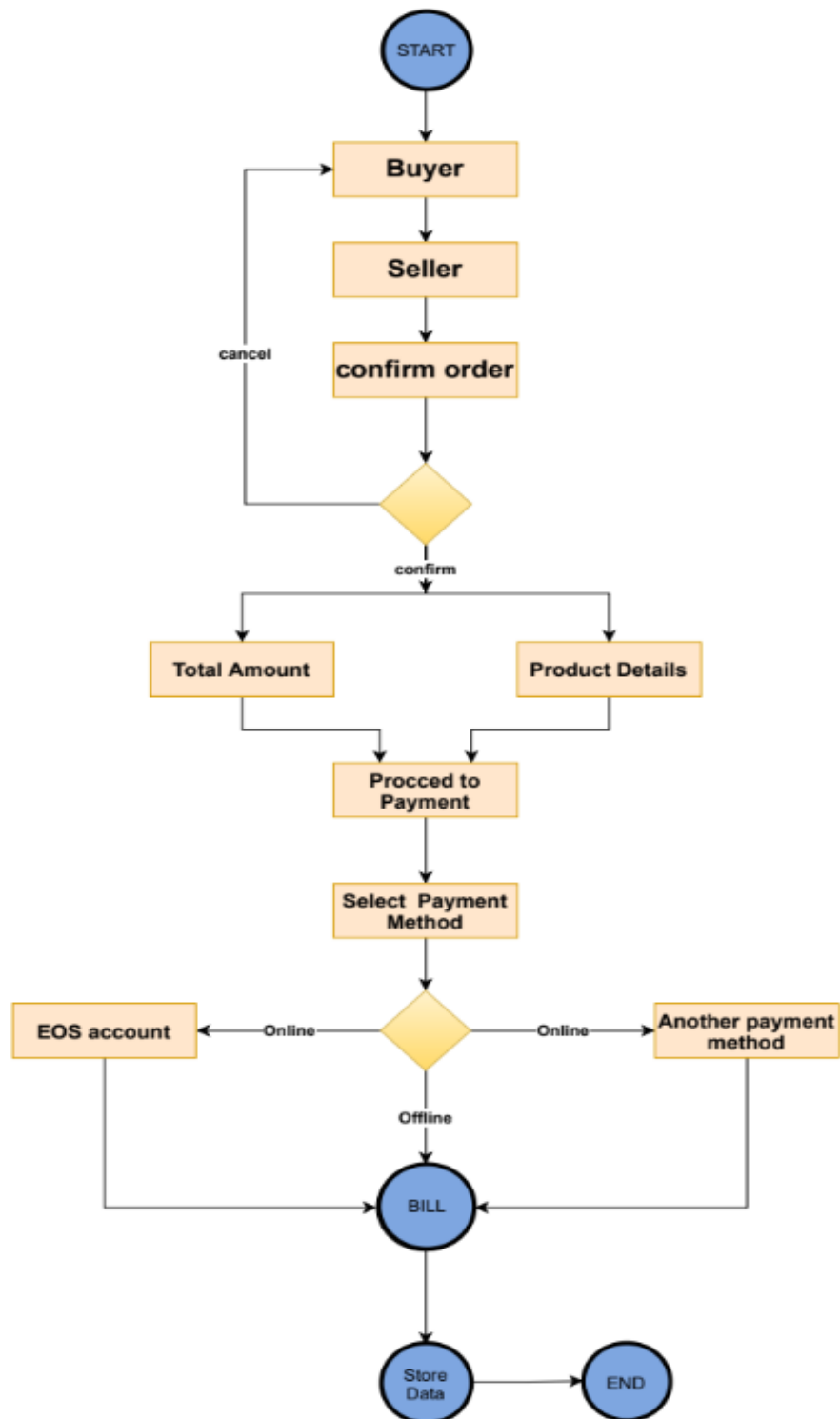


III. Sequence Diagram (2)



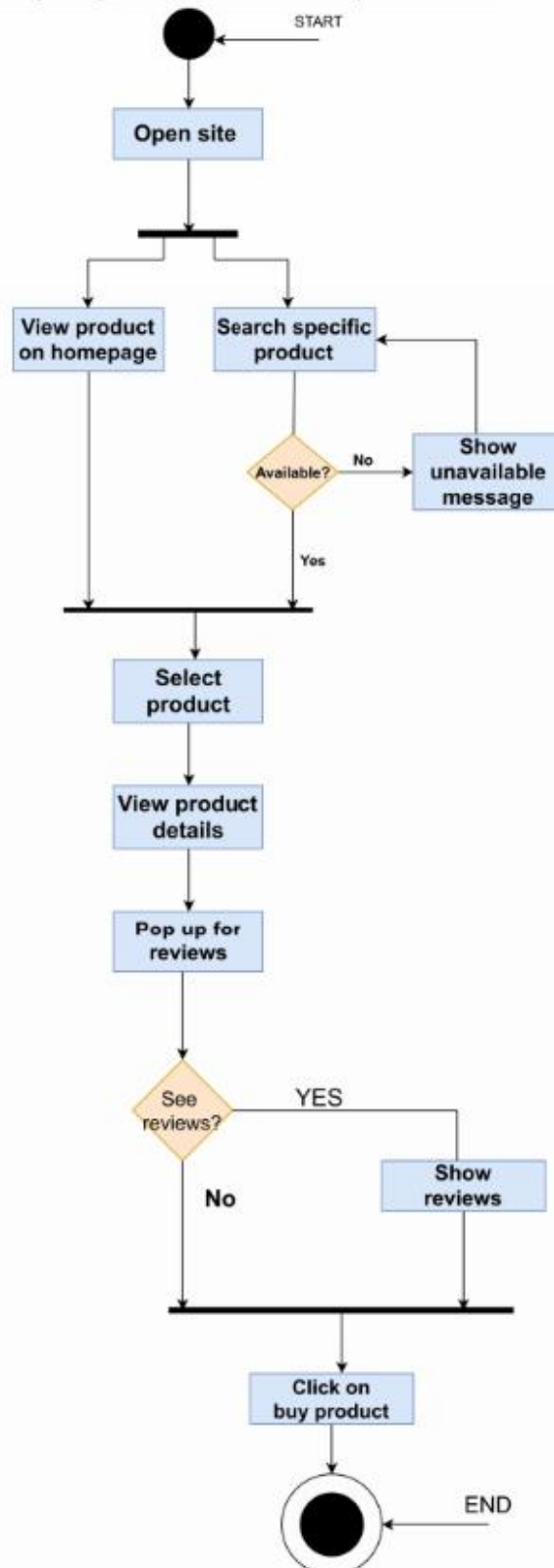
IV. Activity Diagram (1)

ACTIVITY DIAGRAM FOR BUYING PRODUCT FROM SELLER



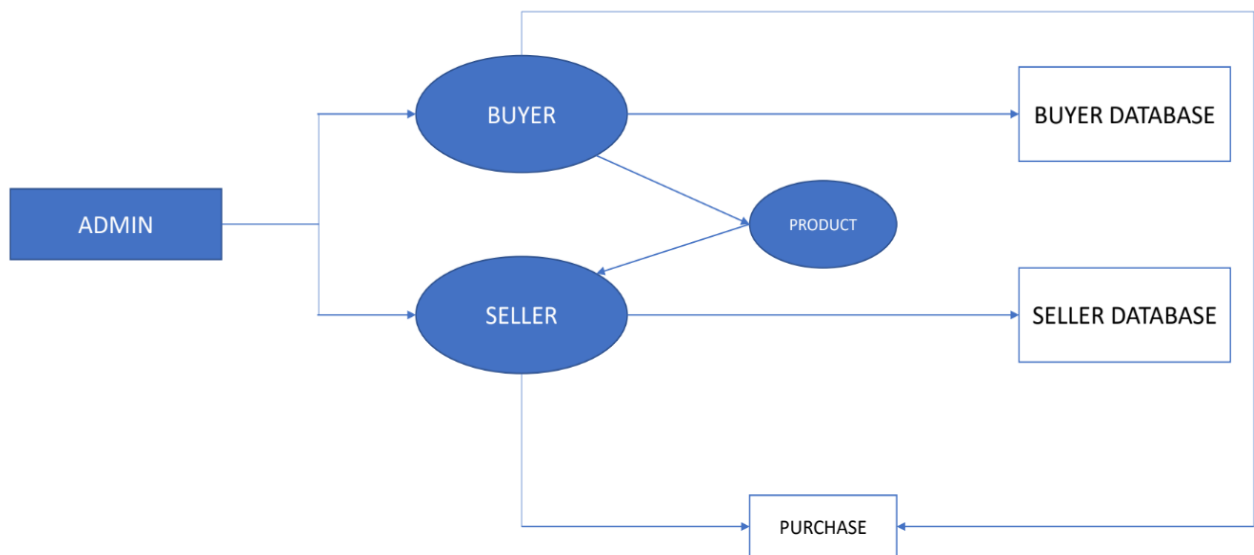
IV. Activity Diagram (2)

Activity diagram for view/search product



V. Data Flow Diagram(DFD)

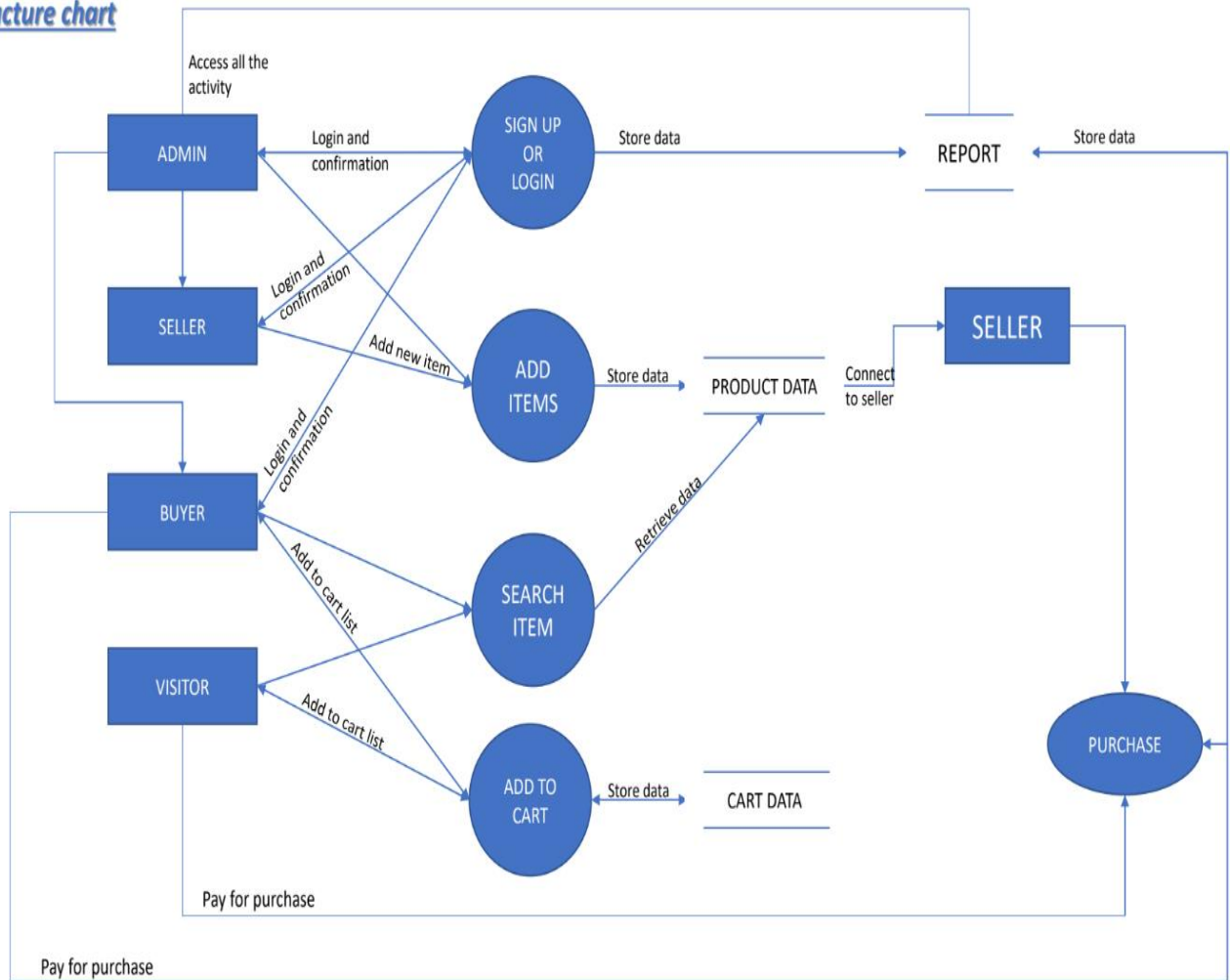
LEVEL ZERO DFD



LEVEL 1 DFD

VI. Structured Chart

Structure chart



5.Implementation Details

Modules:

- 1.User module
- 2.Product module

□ Each module is made up of number of methods. This methods are shown module-wise below.

Major Functions:

- 1) User Login :- User provides login credentials and upon successful authorization is redirected to the homepage.

```
def login(request):  
    if request.method== 'POST':  
        username = request.POST['username']  
        password = request.POST['password']  
  
        user = auth.authenticate(username=username,password=password)  
  
        if user is not None:  
            auth.login(request,user)  
            return redirect("/")  
        else:  
            messages.info(request,'invalid credential!!')  
            return redirect('login')  
    else:  
        return render(request,'login.html')
```

- 2) User Registration :- User inputs his/her personal information and it will be stored into database and user redirected to homepage.

```
def register(request):  
    if request.method == 'POST':  
        first_name = request.POST['first_name']  
        last_name = request.POST['last_name']  
        email = request.POST['email']  
        password1 = request.POST['password1']  
        password2 = request.POST['password2']  
        username = request.POST['username']  
  
        if password1==password2:  
            if User.objects.filter(username=username).exists():  
                messages.info(request,'username taken')  
                return redirect('register')  
            elif User.objects.filter(email=email).exists():  
                messages.info(request,'email Taken')  
                return redirect('register')  
            else:  
                user = User.objects.create_user(username=username,password=password1,email=email,first_name=first_name,last_name=last_name)  
                user.save();  
                return redirect('login')  
        else:  
            messages.info(request,'password not matching!!!!')  
            return redirect('register')  
    return redirect("/")  
  
    else:  
        return render(request,'register.html')
```

- 3) View Products :- All products are shown to user.

```
def index(request):  
    products = Product.objects.all()  
    params = {'product':products}  
    return render(request,'index.html',params)
```

4) Search :- Customer can view particular product details or search a specific product.

```
def Search(request):  
    query = request.GET.get('search')  
    product = Product.objects.filter(product_name__icontains=query)  
    params = {'product':product}  
    return render(request, 'index.html',params)
```

5) Product-view :- If user can click on Quickview then it will show the Product detail.

```
def ProductView(request,proid):  
    product = Product.objects.filter(id=proid)  
    return render(request, 'productview.html',{'product' : product[0]})
```

- 6) Product Ads: If user can click on sell then user will redirect to Product ads form page.

```
def sell(request):
    if request.method=="POST":
        product_name = request.POST.get('product_name','')
        product_price = request.POST.get('product_price','')
        product_brand = request.POST.get('product_brand','')
        desc = request.POST.get('desc','')
        publish_date = request.POST.get('publish_date','')
        product_category = request.POST.get('product_category','')
        owner_name = request.POST.get('owner_name','')
        owner_gmail = request.POST.get('owner_gmail','')
        owner_phone = request.POST.get('owner_phone','')
        owner_address = request.POST.get('owner_address','')

        data = Product(product_name=product_name, product_price= product_price,product_brand= product_brand,desc= desc,
            publish_date=publish_date,product_category=product_category,owner_name=owner_name,owner_gmail=owner_gmail,
            owner_phone=owner_phone, owner_address= owner_address)
        data.save()

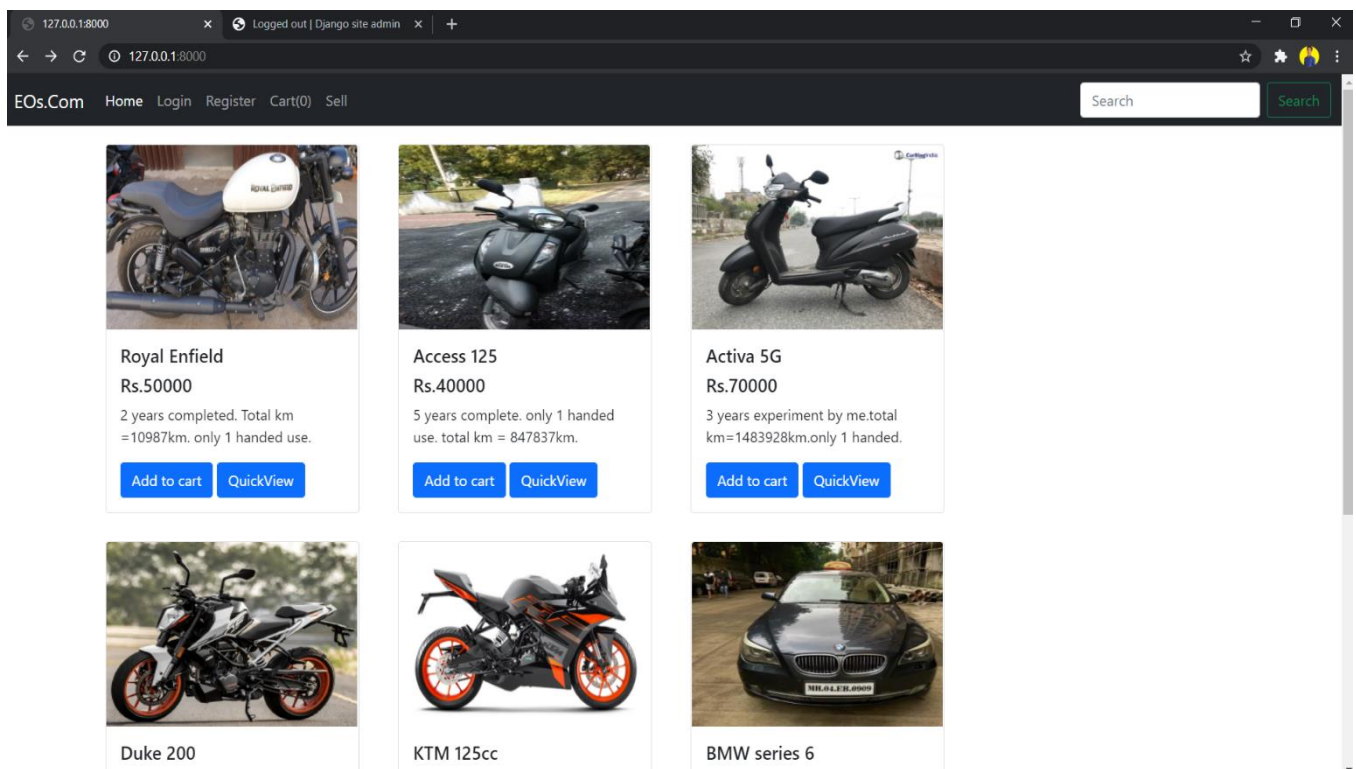
    return render(request,'sell.html')
```

- 7) User Logout :- If user click on logout button then it will simply logout.

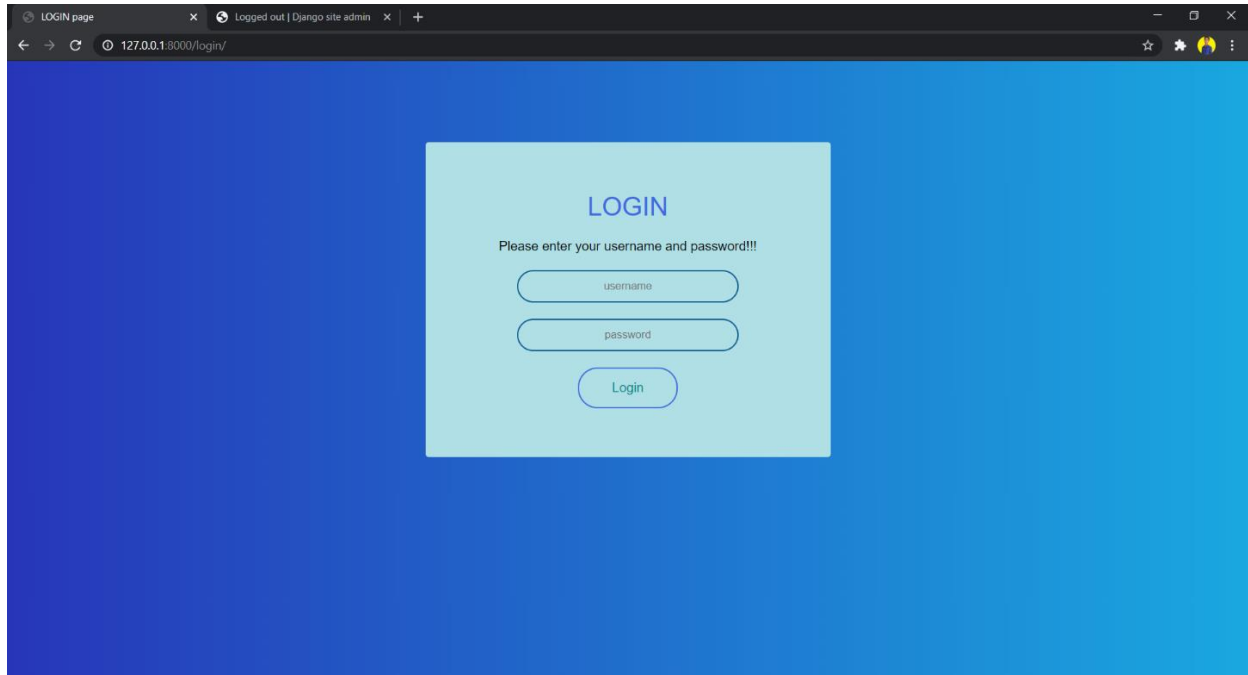
```
def logout(request):
    auth.logout(request)
    return redirect('/')
```

6.Workflow/Layout/Screenshots:

I. User/Customer home page



II. Login page



LOGIN

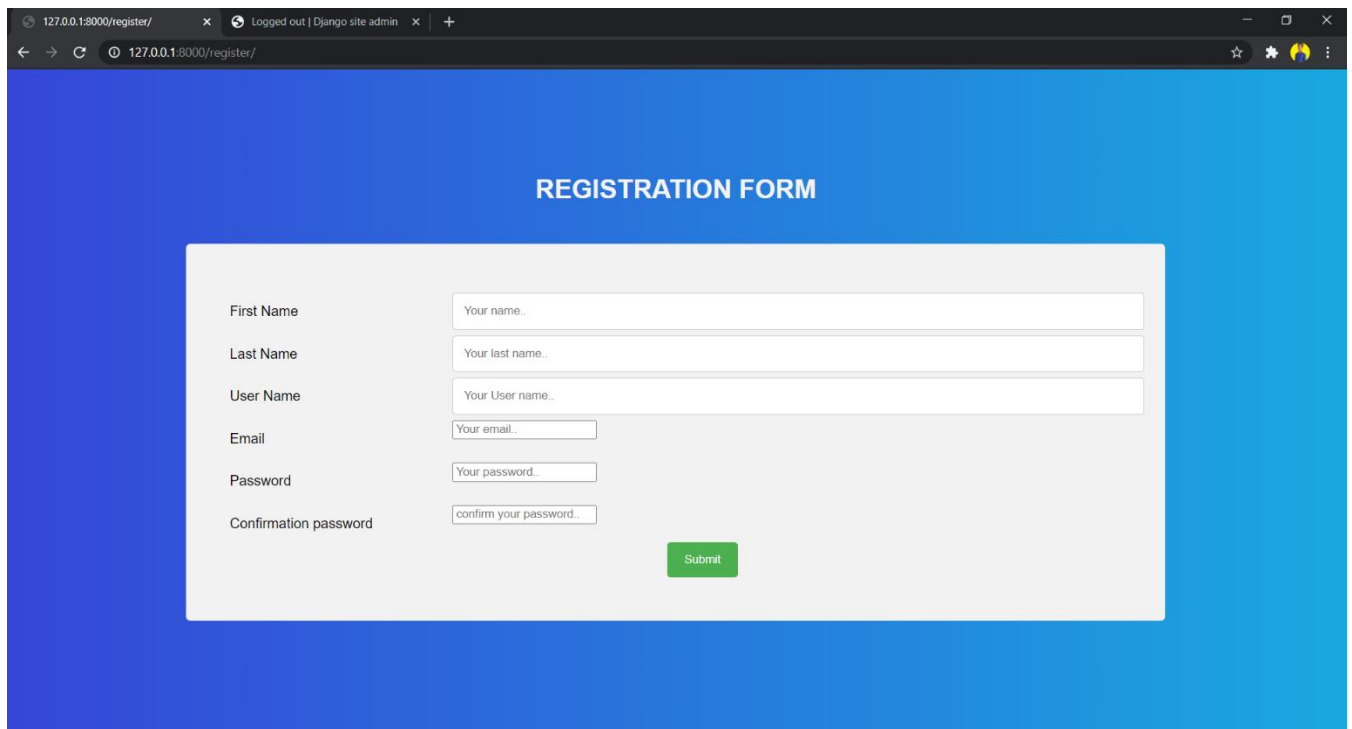
Please enter your username and password!!!

username

password

Login

III. Registration Page



REGISTRATION FORM

First Name

Your name..

Last Name

Your last name..

User Name

Your User name..

Email

Your email..

Password

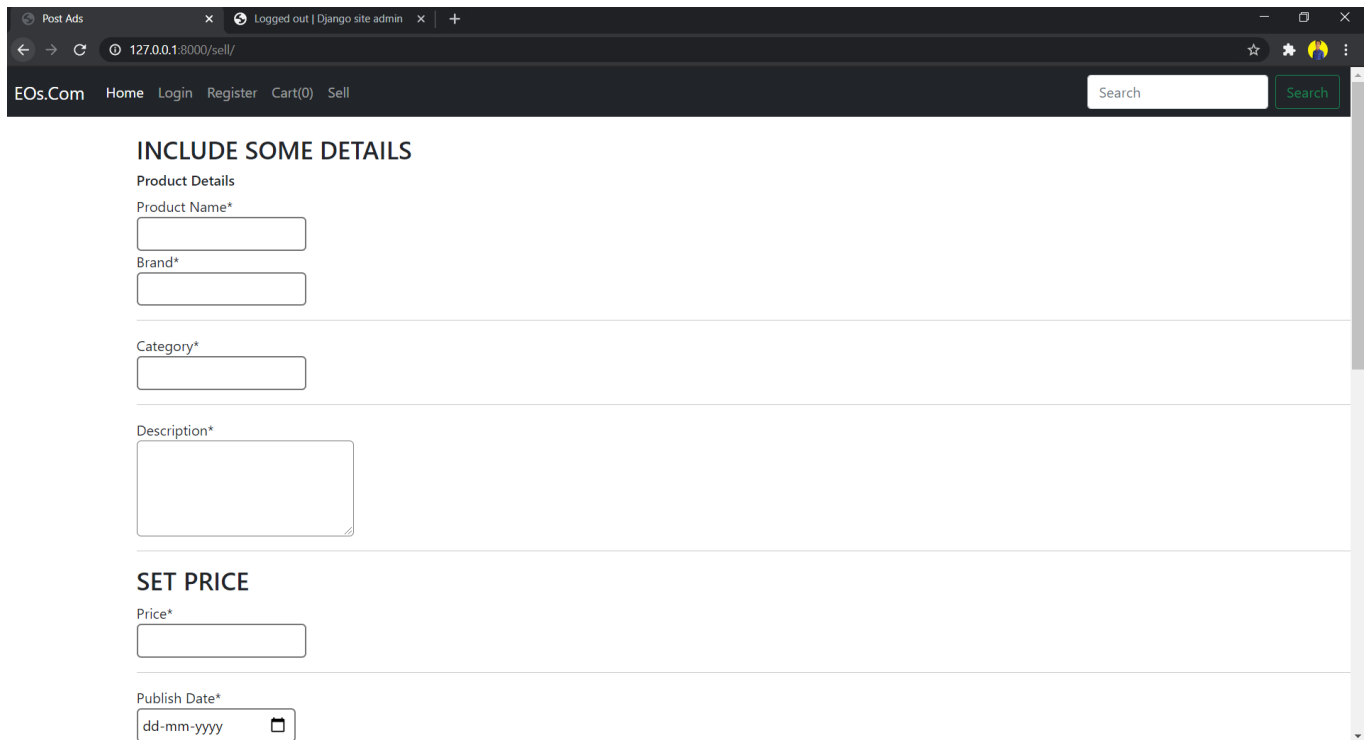
Your password..

Confirmation password

confirm your password..

Submit

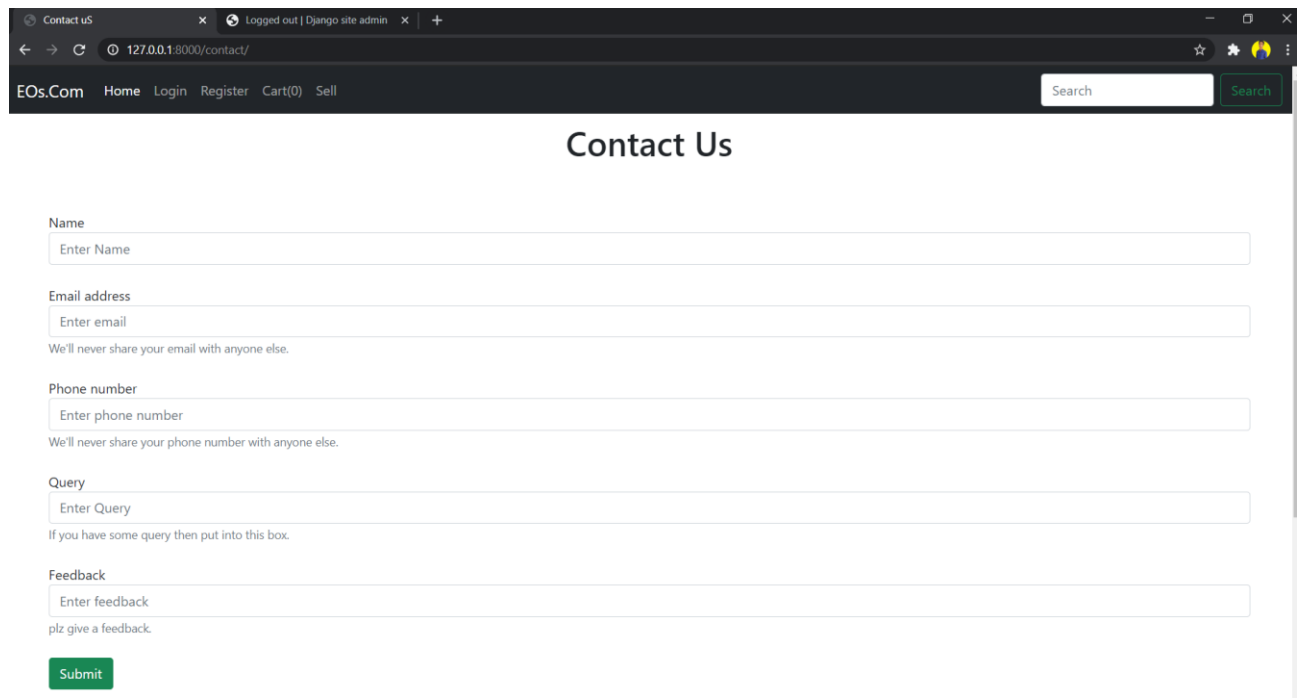
IV. Post Ads



The screenshot shows a web browser window with the URL `127.0.0.1:8000/sell/`. The page title is "Post Ads". The navigation bar includes "EOs.Com", "Home", "Login", "Register", "Cart(0)", and "Sell". A search bar is located in the top right corner. The main content area is titled "INCLUDE SOME DETAILS" and contains the following form fields:

- Product Details**
 - Product Name* (text input)
 - Brand* (text input)
 - Category* (text input)
 - Description* (text area)
- SET PRICE**
 - Price* (text input)
 - Publish Date* (date input with a calendar icon)

V. Contact Us Page



The screenshot shows a web browser window with the URL `127.0.0.1:8000/contact/`. The page title is "Contact us". The navigation bar is identical to the previous page. The main content area is titled "Contact Us" and contains the following form fields:

- Name (text input with placeholder "Enter Name")
- Email address (text input with placeholder "Enter email")
 - We'll never share your email with anyone else.
- Phone number (text input with placeholder "Enter phone number")
 - We'll never share your phone number with anyone else.
- Query (text input with placeholder "Enter Query")
 - If you have some query then put into this box.
- Feedback (text input with placeholder "Enter feedback")
 - plz give a feedback.

A green "Submit" button is located at the bottom left of the form.

7. Conclusion

Hereby, we conclude that we have successfully implemented the admin, buyer, seller module.

Admin will be able to add/remove the category and products.

Customer will be able to view, search the products, add them to the cart, place an order, give a review to seller for individual products, view reviews of other buyer product.

The seller will be able to confirm the orders.

After successful implementation of all the functionalities, testing was performed by us. Also, we asked different end-users (Family members) who were completely unaware of the system so that we can get a better understanding of how a normal end-user will use the system and we can detect if there are any chances of improvement or flaws.

8. Limitations

1. This project 'E-commerce Website' is not yet hosted on the world wide web. Everything done till now is tested and run on the local server.
2. Payment gateway is not integrated.

8.1 Future extensions:

- 1] Integrating the payment gateways of different payment options like Paytm, PayPal and Stripe as well as with other banks.
- 2] Adding an order tracking functionality so that Buyer can see at what place their order is.
- 3] Adding comparing functionality so that 2 products can be compared by a buyer.
- 4] Improve UI for better user interaction.

9. Bibliography

- <https://docs.djangoproject.com/en/3.1/>
- <https://www.w3schools.com/css/>
- <https://stackoverflow.com/>
- <https://www.geeksforgeeks.org/>