MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Project Report

on

Online Shopping Store

Submitted By:

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Faculty Mentor:

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE

GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

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A project report submitted in partial fulfilment of the requirement for the degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

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CERTIFICATE

This is certified that **Vaishnavi Tomar** (0901CS191135) has submitted the project report titled **Online Shopping Store** under the mentorship of **Mr. Mir Shahnawaz Ahmad,** in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

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DECLARATION

We hereby declare that the work being presented in this project report, for the partial fulfilment of requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of **Mr. Mir Shahnawaz Ahmad**, **Assistant Professor**, Computer Science and Engineering.

We declare that we have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.

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Abstract

An online shopping system that permits a customer to submit online orders for items and/or services from a store that serves both walk-in customers and online customers. The online shopping system presents an online display of an order cut off time and an associated delivery window for items selected by the customer. The system accepts the customer's submission of a purchase order for the item in response to a time of submission being before the order cut off time. The online shopping system does not settle with a credit supplier of the customer until the item selected by the customer is picked from inventory but before it is delivered. Therefore, the customer can go online and make changes to the order. In addition, available service windows are presented to the customer as a function of customer selected order and service types and further, the order picking is assigned in accordance with a picker's preference. When ordering goods, many shopping systems provide a virtual shopping cart for holding items selected for purchase. Successive items selected for purchase are placed into the virtual shopping cart until a customer completes their shopping trip. Virtual shopping carts may be examined at any time, and their contents can be edited or deleted at the option of the customer. Once the customer decides to submit a purchase order, the customer may print the contents of the virtual shopping basket in order to obtain a hard copy record of the transaction.

KEYWORDS: Python, Django,Virtual environment, Python Anywhere.

सार

एक ऑनलाइन शॉपिंग सिस्टम जो ग्राहक को एक स्टोर से वस्तुओं और/या सेवाओं के लिए ऑनलाइन ऑर्डर जमा करने की अनुमति देता है जो वॉक-इन ग्राहकों और ऑनलाइन ग्राहकों दोनों को सेवा प्रदान करता है। ऑनलाइन शॉपिंग सिस्टम ग्राहक द्वारा चयनित वस्तुओं के लिए ऑर्डर कट ऑफ टाइम और एक संबद्ध डिलीवरी विंडो का ऑनलाइन प्रदर्शन प्रस्तुत करता है। ऑर्डर कट ऑफ समय से पहले जमा करने के समय के जवाब में सिस्टम आइटम के लिए खरीद आदेश जमा करने के ग्राहक को स्वीकार करता है। ऑनलाइन शॉपिंग सिस्टम ग्राहक के क्रेडिट सप्लायर के साथ समझौता नहीं करता है जब तक कि ग्राहक द्वारा चुने गए आइटम को इन्वेंट्री से नहीं चुना जाता है, लेकिन इसे वितरित करने से पहले। इसलिए, ग्राहक ऑनलाइन जा सकते हैं और ऑर्डर में बदलाव कर सकते हैं। इसके अलावा, उपलब्ध सर्विस विंडो ग्राहक के चयनित ऑर्डर और सेवा प्रकारों के एक फ़ंक्शन के रूप में ग्राहक को प्रस्तुत की जाती हैं और इसके अलावा, ऑर्डर पिकिंग को पिकर की वरीयता के अनुसार असाइन किया जाता है। सामान ऑर्डर करते समय, कई शॉपिंग सिस्टम खरीद के लिए चुनी गई वस्तुओं को रखने के लिए एक वर्चुअल शॉपिंग कार्ट प्रदान करते हैं। खरीदारी के लिए चुनी गई क्रमिक वस्तुओं को तब तक वर्चुअल शॉपिंग कार्ट में रखा जाता है जब तक कि कोई ग्राहक अपनी खरीदारी यात्रा पूरी नहीं कर लेता। वर्चुअल शॉपिंग कार्ट की किसी भी समय जांच की जा सकती है, और ग्राहक के विकल्प पर उनकी सामग्री को संपादित या हटाया जा सकता है। एक बार जब ग्राहक खरीद आदेश जमा करने का निर्णय लेता है, तो ग्राहक लेनदेन की हार्ड कॉपी रिकॉर्ड प्राप्त करने के लिए वर्चुअल शॉपिंग बास्केट की सामग्री को प्रिंट कर सकता है।

कीवर्ड: अजगर, डीजेंगो, आभासी वातावरण, अजगर कहीं भी।

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CHAPTER 1: PROJECT OVERVIEW

1.1 Introduction

With the evolution of internet and so many other computing devices, market places have been brought to the fingertips of customers without leaving their homes, offices, and other places which can deny the customers access to the market at that particular moment. One significant outcome of the internet is the birth of online shopping which is also known as e-commerce (Electronic Commerce). Many organizations nowadays invest so much in e-commerce, some of the major giants are Amazon, Shopify, AliExpress, Jumia, Konga, etc. These major organizations major role is to serve as middlemen between the manufacturers and consumers also known as an online retailer between manufacturers and consumers. The importance of such service is so significant because consumers cannot always be at all the market places at the same time to purchase goods, for that reason, these major players in this business deal with goods from a variety of manufacturers from different industries ranging from edible goods (groceries, desserts, etc.) to non-edible goods (like computers and electronics, wears, utensils etc.) and so on. This process of goods supply chain still remains the same as the normal one and has relieved consumers the stress of going to different market places to purchase goods. Since the stress of going to different market places by the consumers have been cared for, some consumers still encounter some difficulties when using the services of this major organizations which may be due to language barrier. The paper focuses on removing the barrier thereby converting the official spoken language (English) to either a native language or any other language. The aim of this research is to develop an online shop with a popular python web framework called Django. The objectives are as follows: To explore the functionalities of the technologies driving some popular e-commerce sites; To develop an e-commerce website translated to some indigenous languages; To integrate a payment processor for managing payments for customers on the site; To build a recommendation engine to recommend goods related to the item being purchased at the moment. This paper shall explore the functionalities of a standard e-commerce website and other third-party software used for the development of an e-commerce website which are all based on the popular python web framework (Django).

1.2 Objective and Scope

Django's primary goal is to ease the creation of complex, database-driven websites. The framework emphasizes reusability and "pluggability" of components, less code, low coupling, rapid development, and the principle of don't repeat yourself.Python is used throughout, even for settings, files, and data models. Django also provides an optional administrative create, read, update and delete interface that is generated dynamically through introspection and configured via admin models.

Scope: The scope of the project will be limited to some functions of the e-commerce website. It will display products, customers can select catalogs and select products, and can remove products from their cart specifying the quantity of each item. Selected items will be collected in a cart. At checkout, the item on the card will be presented as an order. Customers can pay for the items in the cart to complete an order. This project has great future scope. The project also provides security with the use of login ID and passwords, so that no unauthorized users can access your account. The only authorized person who has the appropriate access authority can access the software.

1.3 Project Features

. User-Friendly

s a matter of fact, studies show that 76% of consumers say the most important characteristic of a website ease of use.

. Mobile-Friendly Website

lobile shopping accounts for 50% of online transactions.

Vith a responsive website, content intuitively adapts to whatever device is accessing it to provide the most er-friendly experience.

3. User-Generated Reviews
Shoppers read reviews. About 95% of them, in fact.
And 57% of consumers will only use a business if it has 4 or more stars.
You might think that having negative reviews is a sale killer. The opposite is actually true.
4. Special Offers
Most ecommerce sites are using special offers in their standard marketing practices via email, social, text, etc.
5. Return Policy
Return policies are an essential feature of any ecommerce website.
Your return policy should be clearly visible and well-written or illustrated.
This is another trust-building feature of online selling. It reassures buyers that if they are unhappy or just need a different size, the brand is there for them.

1.3.1 Operational Feasibility

If the system meets the requirements of the customers and the administrator we can say that the system is operationally feasible.
The proposed system will be beneficial only if it can be turned into a system which will meet the requirements of the store when it is developed and installed, and there is sufficient support from the users.

i. The proposed system will improve the total performance.
ii. Customers here are the most important part of the system and the
proposed system will provide them with a convenient mode of operation for them.
iii. The proposed system will be available to the customers throughout the globe.
iv. The proposed system will provide a better market for different dealers.
Hence, the proposed system is operationally feasible.

1.3.2 Economic Feasibility

Economic Feasibility is the most frequently used method for evaluating th effectiveness of the proposed system if the benefits of the proposed system outweighs the cost then the decision is made to design and implement the system.

i. The cost of hardware and software is affordable.
ii. High increase in the amount of profit earned by going global.
iii. Easy and cheap maintenance of the system possible.
iv. Very cheap price for going global.
Hence, the proposed system is economically feasible.

1.4 System Requirements

Windows Based Requirements: Computers running Microsoft Windows must meet the following minimum hardware and softwarerequirements.
Microsoft Windows: 7/8/10/11

4 GB RAM minimum, 8 GB RAM recommended

1GB of available disk space minimum

1280 * 800 minimum screen resolution

Software Requirement: Python 3.9

Hardware Requirement: Laptop/Computer

Internet Connectivity

CHAPTER 2:

LITERATURE REVIEW

2.1 STATUS OF ONLINE SHOPPING IN PERSENT BUSINESS ENVIOURNMENT

Online buying behaviour is affected by various factors like, economic factors, demographic factors, technical factors, social factors, cultural factors, psychological factors, marketing factors and legislative factors. Customers choose an online-shop mainly based on references, clarity terms of delivery, graphic design and additional services. Problematical customers read discussions on the Internet before they spend their money on-line and when customers are incapable to purchase the product fast and with no trouble they leave online-shop. Kotler, (2003) described Consumer buying method as learning, information-processing and decision-making activity divided in several consequent steps: Problem identification, Information search, Alternatives evaluation, Purchasing decision, Post-purchase behaviour. Euthymia identified the main constituent of the online shopping experience as follows: the functionality of the Web site that includes the elements trade with the site's usability. the emotional elements planned for lowering the customer's hesitation by communicating trust and credibility of the online seller and Web site and the content elements including the aesthetic aspects of the online presentation and the marketing mix. Usability and trust are the issues more regularly found to influence the online consumer's behaviour. Free shipping is a great motivator to purchase the products and customers are willing to pay nominal charges for getting their products. While compare the shopping with others shopping, consumers take product price and shipping charges almost equally into deliberation. There are some ways that retailers can do to improve the experience for their online shoppers. The first is to write the expected delivery date of the order, customers are willing to wait for their orders but want to know just how long that force is. Timely coming of product shipment encourages shoppers to recommend an online retailer. Consumers also want to track updates and delivery notifications to understand when their package is incoming. Online shoppers want flexibility in their shipping, mainly the ability to give special delivery instructions or schedule a delivery time. Customers are also wanting to get the address changing option for filling the wrong address when they are purchasing online.

2.2 IMPORTANCE OF ONLINE SHOPPING

Customers can take enjoy online shopping for 24 hour per day. Consumers can purchase any goods and services anytime at everywhere. Online shopping is user friendly compare to in store shopping because consumers can just complete his requirements just with a click of mouse without leaving their home. Online shopping has some advantages like below

- Save the Time of the consumers.
- They can purchase any time anywhere
- They can compare the price with the others retailers very easily.
- Compare the advertising price and actual price
- They can easily track their product
- They can use cash back policy
- They can purchase the product from the foreign marketers.

2.3 THE FACTORS WHICH AFFECT ONLINE SHOPPING

There are some factors which affect the online shopping by the Kotler who is a great marketing writer

- Convenience (no traffic, crowds,24 hr. access)
- Product Selection
- Delivery Mode

2.4 PROBLEMS OF ONLINE SHOPPING

Online shopping problems are great barrier to the online purchase aim of customers. General problems include prospect of having credit card. The obscurity to confirm the reliability of the provide goods and the risk to buy a product that it would not value as much as customer pay for it. Aftersales problems, involved difficulty to change not working product with a new one and products warranty are not assured. Online shopping has various disadvantages:

- The customers can not touch and fell of the products when they want to Purchase.
- Some time delivery time is so much late .
- Some time they will pay the shipping charges so why the cost of the product may increase.
- Lack of personal attention by the sellers. More chance to fraud.
- Security of internet banking password and credit card password.
- Lack of quality.

CHAPTER 3: PRELIMINARY DESIGN

Django is a high-level Python web framework that enables rapid development of secure and maintainable websites. Built by experienced developers, Django takes care of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel. It is free and open source, has a thriving and active community, great documentation, and many options for free and paid-for support.

Django helps you write software that is:

Versatile Django can be (and has been) used to build almost any type of website — from content management systems and wikis, through to social networks and news sites. It can work with any client-side framework, and can deliver content in almost any format (including HTML, RSS feeds, JSON, XML, etc).

Secure Django helps developers avoid many common security mistakes by providing a framework that has been engineered to "do the right things" to protect the website automatically. For example, Django provides a secure way to manage user accounts and passwords, avoiding common mistakes like putting session information in cookies where it is vulnerable (instead cookies just contain a key, and the actual data is stored in the database) or directly storing passwords rather than a password hash.

A password hash is a fixed-length value created by sending the password through a cryptographic hash function. Django can check if an entered password is correct by running it through the hash function and comparing the output to the stored hash value. However due to the "one-way" nature of the function, even if a stored hash value is compromised it is hard for an attacker to work out the original password.

Scalable Django uses a component-based "shared-nothing" architecture (each part of the architecture is independent of the others, and can hence be replaced or changed if needed). Having a clear separation between the different parts means that it can scale for increased traffic by adding hardware at any level: caching servers, database servers, or application servers. Some of the busiest sites have successfully scaled Django to meet their demands (e.g. Instagram and Disqus, to name just two).

Maintainable Django code is written using design principles and patterns that encourage the creation of maintainable and reusable code. In particular, it makes use of the Don't Repeat Yourself (DRY) principle so there is no unnecessary duplication, reducing the amount of code. Django also promotes the grouping of related functionality into reusable "applications" and, at a lower level, groups related code into modules (along the lines of the Model View Controller (MVC) pattern). Django is written in Python, which runs on many platforms. That means that you are not tied to any particular server platform, and can run your applications on many flavors of Linux, Windows, and macOS.

Easy to Use Django uses Python programming language, which is a popular language in 2015, and now most choosing language by programmers who are learning to code and applications of Django framework is widely used as it is free and open-source, developed and maintained by a large community of developers. It means we can find answers to the problems easily using Google.

Django Benefits With the uses of the Django framework, we can develop and deploy web applications within hours as it takes care of much of the hassle of web development. Django is very fast, fully loaded such as it takes care of user authentication, content administration, security as Django takes it very seriously and helps to avoid SQL injection, cross-site scripting etc. and scalable as applications can be scalable to meet high demands and used to build any type of applications that's why we call it as a versatile framework. We can build different applications from content management to social networking websites using the Django framework. It offers lots of resources and good documentation, which helps new learners to learn and experienced people for reference.

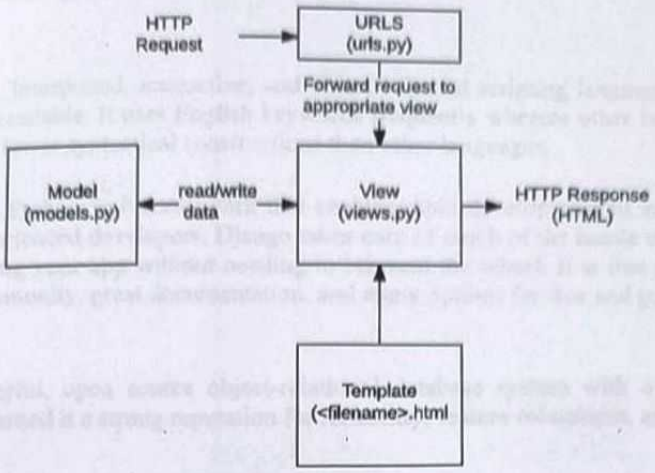

Fig 3.1.1 Working of Django

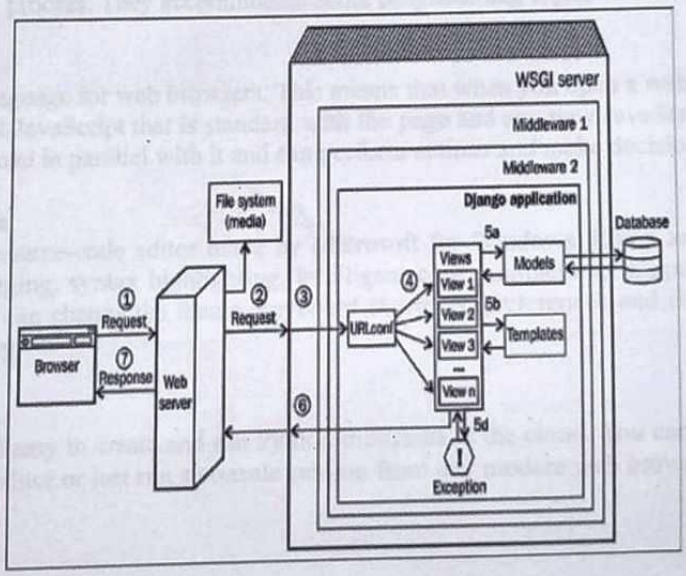

Fig 3.1.2 Web requests are processed in a typical Django application

3.1 Tools & Technologies

3.1.1 Python

Python is a high-level, interpreted, interactive, and object-oriented scripting language. Python is designed to be highly readable. It uses English keywords frequently whereas other languages use punctuation, and it has fewer syntactical constructions than other languages.

3.1.2 Django

Django is a high-level Python web framework that enables rapid development of secure and maintainable websites. Built by experienced developers, Django takes care of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel. It is free and open source, has a thriving and active community, great documentation, and many options for free and paid-for support.

3.1.3 Postgres SQL

PostgreSQL is a powerful, open source object-relational database system with over 30 years of active development that has earned it a strong reputation for reliability, feature robustness, and performance.

3.1.4 HTML

HTML is Hypertext Markup Language used to create the web pages of the websites. HTML is not a programming language; instead, it is used to develop a format for websites with paragraphs, Text, buttons, shapes, etc. So, now, let's begin with the HTML Editors.

3.1.5 CSS

Cascading Style Sheets, or CSS, is what gives our HTML visual appeal and draws in the user. To put it simply, style sheets dictate the presentation of HTML elements on a page.
A new trend with styling is to use what is called a CSS pre-processor. These include Less, Sass and stylists. Pre-processors are scripting languages that compile to CSS for the browser and are very popular as they expedite the development process. They accommodate some programming logic.

3.1.6 Javascript

JavaScript is a runtime language for web browsers. This means that when you open a web page, the page will load both the foundational JavaScript that is standard with the page and any new JavaScript added to a page. The new JavaScript will load in parallel with it and can perform actions and make decisions.

3.1.7 Visual Studio Code

Visual Studio Code is a source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality.

3.1.8 Python Anywhere

PythonAnywhere makes it easy to create and run Python programs in the cloud. You can write your programs in a web-based editor or just run a console session from any modern web browser.

4: FINAL ANALYSIS AND DESIGN

4.1 Final Analysis

A complete understanding of software requirement is essential to the success of a web-development effort. No matter how well designed or well coded, a poorly analysed and specificprogram will disappoint user and bring grief to the developers.The requirement analysis task is process of discovery, refinement, modified andspecification. The software scope, initially established by the system engineer and refined duringproject planning, is refined in detail. Models of the required data, information and control flow, andoperational behaviour are created. Alternative solutions are analysed and various project element.Currently who want to buy some shoes or any clothing type they have to go to the shop andbuy them this is very tedious for customer therefore we upload this site on internet. This web-siteshould be developed with an aim to simplify shopping process and keeping transparency andflexibility in performing each operation.

Fig 4.1.1 Data Flow Diagram

4.2 Customer Module

•Customer can view/search products without login.
•Customer can also add/remove product to cart without login (if customer try to addsame product in cart. It will add only one)
•When customer try to purchase product, then he/she must login to system.
•After creating account and login to system, he/she can place order.
•If customer click on pay button, then their payment will be successful and theirorder will be placed.
•Customer can check their ordered details by clicking on orders button.
•Customer can see the order status (Pending, Confirmed, Delivered) for each order
•Customer can Download their order invoice for each order
•Customer can send feedback to admin (without login)

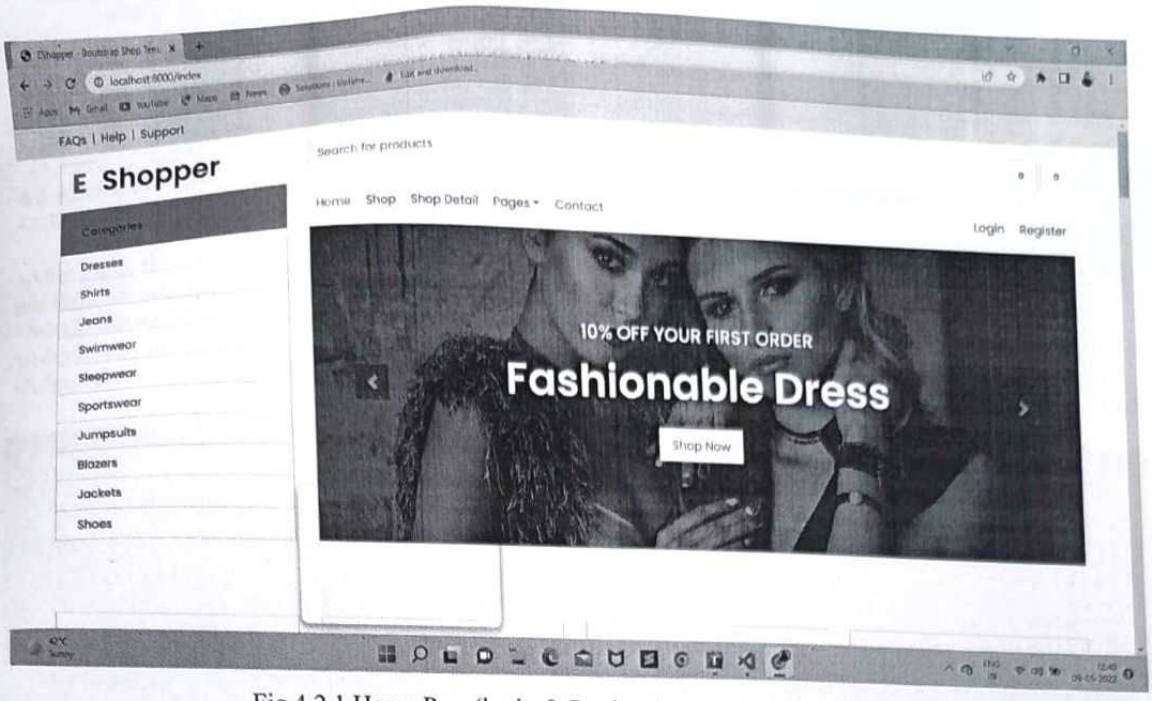

Fig 4.2.1 Home Page(login & Register)

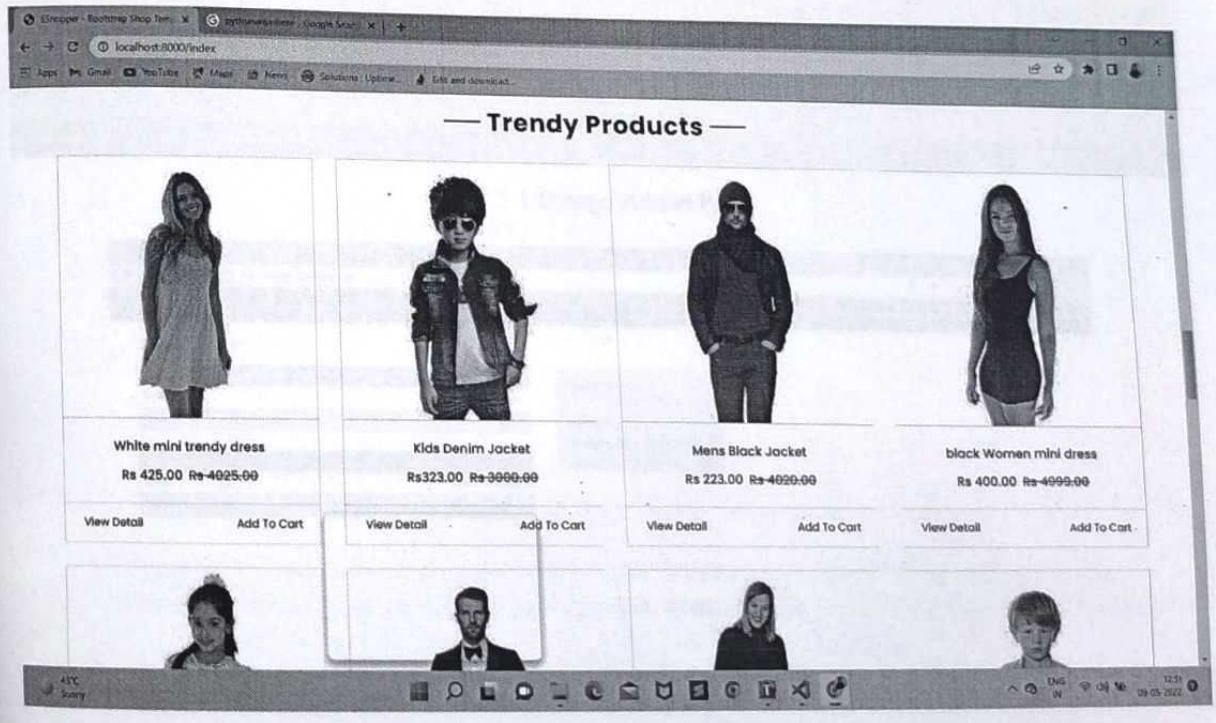

Fig 4.2.2 Product page

4.3 Admin Module

•Admin can provide username, email, password and your admin account will becreated.

•After login, there is a dashboard where admin can see how many customers isregistered, how many products are there for sale, how many orders placed.
•Admin can add/delete/view/edit the products.
•Admin can view/edit/delete customer details.
•Admin can view/delete orders.

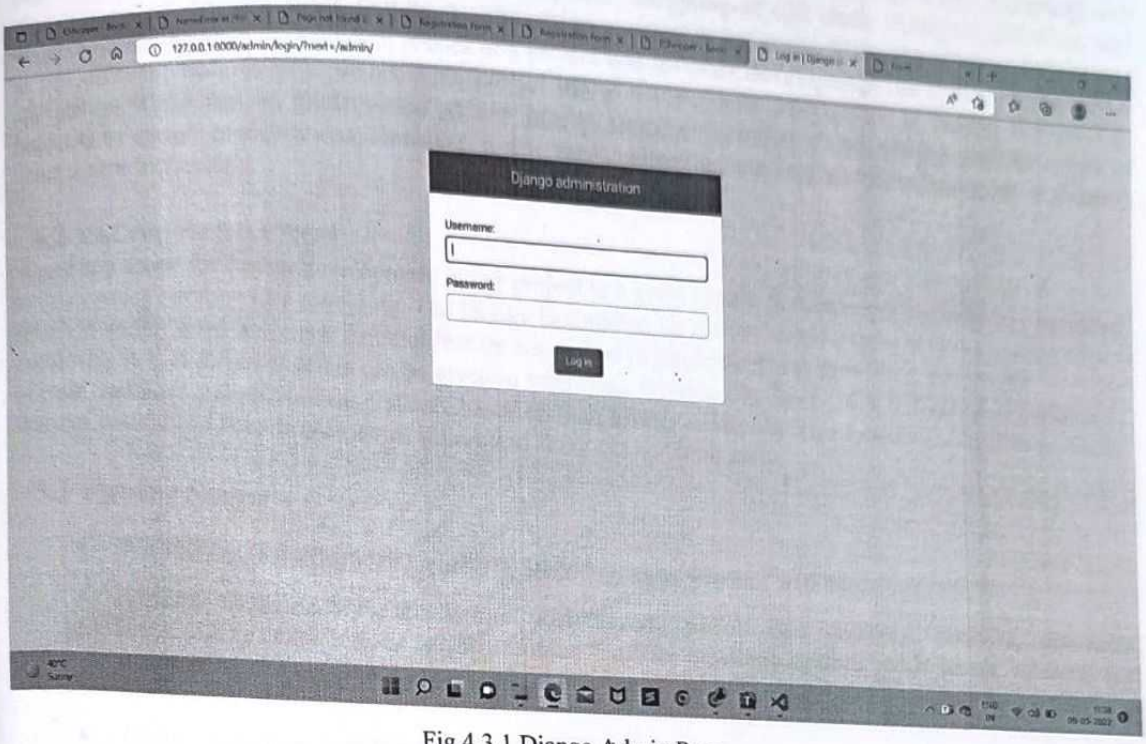

Fig 4.3.1 Django Admin Page

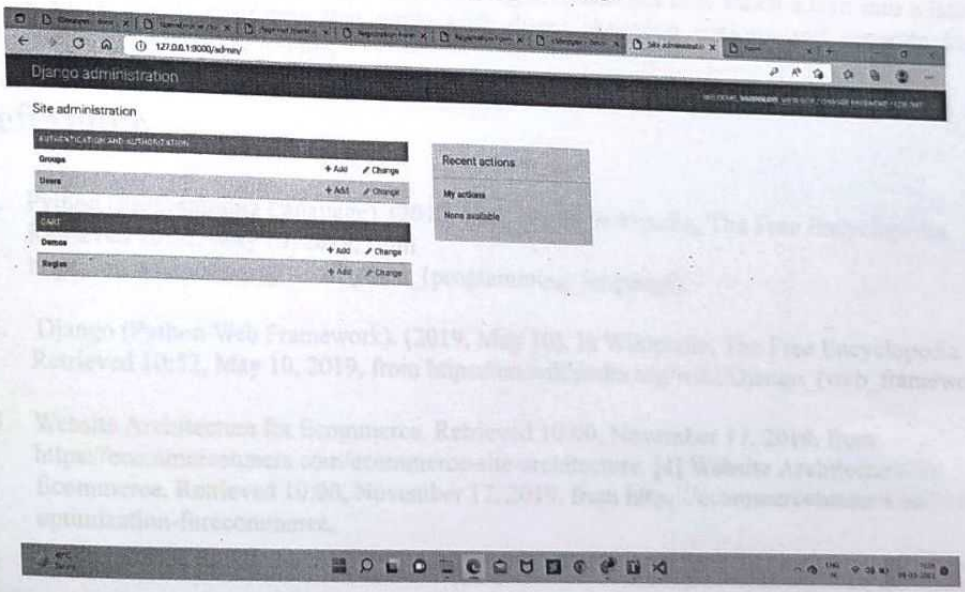

Fig 4.3.2 Data of the login and register customer

CHAPTER 5: CONCLUSION AND FUTURE SCOPE

5.1 Conclusion

The project entitled E Shopper Online Store system was completed successfully. The system has been developed with much care and free of errors and at the same time it is efficient and less time consuming. The purpose of this project was to develop a web application for purchasing items from a fashion shop. This project enabled me gain valuable information and practical knowledge on several topics like designing web pages using html & CSS, usage of responsive templates, designing of full stack Django application, and management of database using SQLite 3. The entire system is secured. Also, the project helped me understanding about the development phases of a project and software development life cycle. I learned how to test different features of a project. This project has given me great satisfaction in having designed an application which can be implemented to any nearby shops or branded shops selling various kinds of products by simple modifications. However, it was very challenging learning and developing an application using a new technology.

5.2 RECOMMENDATION

There is a scope for further development in our project to a great extent. A number of features can be added to this system in future like providing. The feature like adding an authenticated payment system using Mpesa which is widely used in Kenya. Another feature we wished to implement was providing classes for customers so that different offers can be given to each class. System may keep track of history of purchases of each customer and provide suggestions based on their history using Machine Learning Algorithm. These features could have been implemented if time and skills did not limit me.

5.3 Future Scope

- We will try to enhance the website by including more product with more options.
- Online shopping website comes with several perks: free delivery, reviews, discounts, accessibility, easy returns, loyalty points, feasible payment options with lesser interest, and much more. So, we will try to work in this process and try to make them work more perfectly.
- Online shopping store is a constantly evolving area and has now taken a turn into a latest trend – social media platforms that come with direct shopping options and separate pages for browsing products of interest.

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