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A Project Report

on

SMART FASHION RECOMMENDER APPLICATION

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Under the Guidance of

Mrs.K.Makanyadevi, M.E.,

Assistant Professor/CSE

Submitted by

TEAM ID: PNT2022TMID15562

927619BCS4071 – MASILAMANI M
927619BCS4062 – KISHOREPAARI M
927619BCS4081 – MUKILAN M
927619BCS4089 – PANDIYARAJ K
927619BCS4099 – RANJITHKURAM V

NAALAIYA THIRAN – EXPERIENTIAL PROJECT BASED LEARNING INITIATIVE

18CSE040L - PROFESSIONAL READINESS FOR INNOVATION, EMPLOYABILITY AND ENTERPRENURSHIP

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

M.KUMARASAMY COLLEGE OF ENGINEERING, KARUR

(Autonomous)

Karur - 639 113

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ABSTRACT

In recent years, the textile and fashion industries have witnessed an enormous amount of growth in fast fashion. On e-commerce platforms, where numerous choices are available, an efficient recommendation system is required to sort, order, and efficiently convey relevant product content or information to users. Image-based fashion recommendation systems (FRSs) have attracted a huge amount of attention from fast fashion retailers as they provide a personalized shopping experience to consumers. With the technological advancements, this branch of artificial intelligence exhibits a tremendous amount of potential in image processing, parsing, classification, and segmentation. Despite its huge potential, the number of academic articles on this topic is limited. The available studies do not provide a rigorous review of fashion recommendation systems and the corresponding filtering techniques. To the best of the authors knowledge, this is the first scholarly article to review the state-of-the-art fashion recommendation systems and the corresponding filtering techniques. In addition, this review also explores various potential models that could be implemented to develop fashion recommendation systems in the future. This paper will help researchers, academics, and practitioners who are interested in machine learning, computer vision, and fashion retailing to understand the characteristics of the different fashion recommendation systems.

CONTENTS

CHAPTER 1

INTRODUCTION

1.1 PROJECT OVERVIEW

A recommendation system is an integral part of any modern online shopping or social network platform. The product recommendation system as a typical example of the legacy recommendation systems suffers from two major drawbacks: recommendation redundancy and unpredictability concerning new items (cold start). These limitations take place because the legacy recommendation systems rely only on the user's previous buying behaviour to recommend new items. Incorporating the user's social features, such as personality traits and topical interest, might help alleviate the cold start and remove recommendation redundancy. we propose Meta-Interest, a personality-aware product recommendation system based on user interest mining and meta path discovery. Meta-Interest predicts the user's interest and the items associated with these interests, even if the user's history does not contain these items or similar ones. This is done by analysing the user's topical interests and, eventually, recommending the items associated with the user's interest. The proposed system is personality-aware from two aspects; it incorporates the user's personality traits to predict his/her topics of interest and to match the user's personality facets with the associated items. The proposed system was compared against recent recommendation methods, such as AI based watson-based recommendation using flask framework is implemented here.

1.2 PURPOSE

The purpose of the work E- commerce system is implemented for product recommendation system, online based system application is used for purchase the product Product recommendation tools use a set of algorithms to show relevant products to your visitors. They do this by using data like location, gender, and more specific information like purchase intent.

CHAPTER 2
LITERATURE SURVEY

McAuley et al. [1] devised a parametric distance transformation that assigns a lower distance to garment pairings that fit well than to those that do not. And provided Image-based recommendations on styles and substitutes

Hu et al. [2] conducted a preliminary investigation into personalised outfit recommendation. To describe the user-item and item-item interactions, a functional tensor factorization method was presented. They proposed A functional tensor factorization approach

Thombre in [3] used image segmentation and Kalman filter to realize Human detection and tracking. Orrite-Urunuela proposed a statistical model for detection and tracking of human silhouette and the corresponding 3D skeletal structure in gait sequences

Veit et al. [4] learned feature transformation for a compatibility measure between pairs of objects using a Siamese CNN architecture. All of these works focused solely on the compatibility of two things. Furthermore, they simply modelled broad matching criteria and ignored the issue of personalisation

Ajmani et al. [5] present a novel method for contentbased recommendation of media-rich commodities with the use of probabilistic multimedia ontology. Proposed an ontology based personalized garment recommendation system.

Li et al. [6] utilized the HMM of recommended items to match customers' model according to customer data. The second method is the collaborative filtering-based recommendations algorithm. Proposed Content-Based Filtering Recommendation Algorithm

For instance, Nogueira et al. [7] presented a new collaborative filtering strategy that utilizes

the visual attention to characterize images and alleviate the new item cold-start problem. The rule-based recommendation algorithm is the third method.

Hwang et al. [8] put forward a method to generate the automatic rules with the user's items and made a suggestion on the best rule. The fourth method is the utility-based recommendation. Scholz et al.

[9] found that exponential utility functions are better geared to predicting optimal recommendation ranks for products, and linear utility functions perform much better in estimating customers' willingness.

Koenig in [10] developed a system toward real-time human detection and tracking in diverse environments. However, mostly the researchers focus on the point of human detection and tracking in complex scene, while refined contour extraction of human in dynamic scene is still an open question.

2.1 EXISTING PROBLEM

In existing system only simple web application and their rating has been implemented in existing system, An ecommerce product recommendation engine is a piece of technology that displays recommended products to shoppers throughout your store. It uses machine learning to get smarter and show increasingly relevant products to shoppers based on their interests and previous browsing behaviour

In existing model is content based filtering scheme has been employed in existing model The **content-based filtering method** analyzes customer data on the likes and dislikes of each user (cookies allow tracking over multiple visits), then makes recommendations based on the browsing history of that user. The idea behind content-based filtering is that if you enjoy a certain item, you'll likely also enjoy a similar item. An example of a content-based filtering system would be if you were listening to Pandora and consistently 'liked' downtempo jazz music.

The collaborative-filtering method incorporates data from users who have purchased similar products, then combines that information to make decisions about recommendations. The advantage to this filtering method is that it is capable of making complex recommendations on items such as music or movies without having to 'understand' what the item is. This method of filtering operates under the assumption that users will prefer recommendations that are based on purchases they made in the past. Here's an example: If customer A likes a specific line of products that customer B also likes (assuming they have similar interests), then collaborate-filtering would assume that customer A would like other products that customer B purchased and vice versa.

A hybrid method combines the content-based and collaborative-based methods to incorporate group decisions but focuses the output based on the attributes of a specific visitor. An example of a hybrid filtering system would be how Spotify curates its personalized 'Discover Weekly' playlists. If you've ever listened to a personalized Spotify playlist, it's shocking how accurately they're able to recommend songs based on what you like. The secret behind how they pull this off is through a complex hybrid filtering system that aggregates data on your listening habits as well as similar users' listening habits, to create a playlist of unique songs that align with your personal taste.

2.2 REFERENCES

1. I. Esslimani, A. Brun, and A. Boyer, "A collaborative filtering approach combining clustering and navigational based correlations," in Proc. 5th Int. Conf. Web Inf. Syst. Technol., 2009, pp. 364–369

2. S. Zhang, W. Wang, J. Ford, and F. Makedon, "Learning from incomplete ratings using non-negative matrix factorization," in Proc. 6th SIAM Int. Conf. Data Mining, 2006, pp. 549–553.

3. T. Hofmann and J. Puzicha, "Latent class models for collaborative filtering," in Proc. 6th Int.

Joint Conf. Artif. Intell., 1999, pp. 688–693.

4. B. M. Sarwar, G. Karypis, J. A. Konstan, and J. Reidl, "Item-based collaborative filtering recommendation algorithms," in Proc. 10th Int. World Wide Web Conf., 2001, pp. 285–295

5. T. George and S. Merugu, "A scalable collaborative filtering framework based on co-clustering," in Proc. 5th IEEE Int. Conf. Data Mining, 2005, pp. 625–628

2.3 PROBLEM STATEMENT DEFINITION

1. The problem of the work is to design static web applications deployments with customer deployment

2. Lack of interaction between application and user

3.   User need to navigate across multiple pages to choose right product

4.   Confusion in choosing product

5. Lack of sales

6. Complex User Interface.

7.   Lack of proper guidance.

CHAPTER 3

IDEATION & PROPOSED SOLUTION

3.1 EMPATHY MAP CANVAS
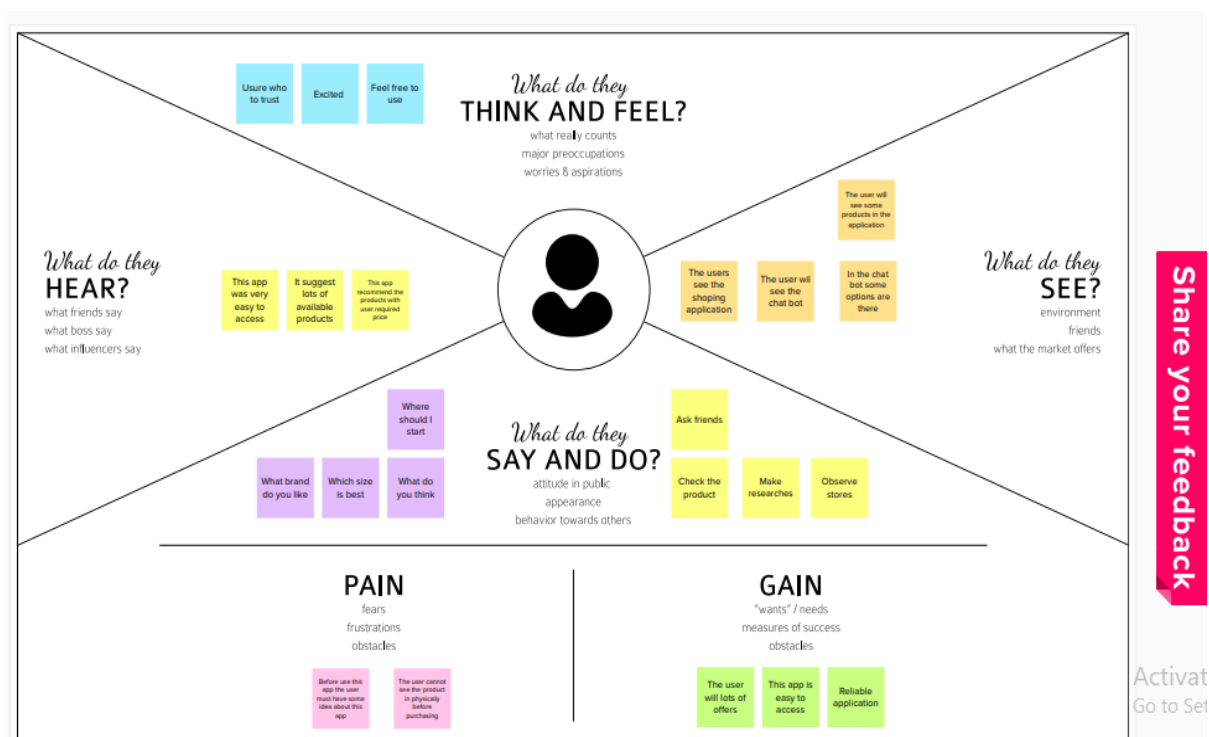
Fig 3.1-Empathy Map

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes and also it is widely used visualization tool within the field.In relation to empathetic design, the primary purpose of an empathy mapis to bridge the understanding of the user

3.2 IDEATION & BRAIN STORMING

Fig 3.2-Ideation & Brain Storming

3.3 PROPOSED SOLUTIONS

The proposed solutions web-based chatbot based applications is implemented with dash board applications is implemented for web applications The aim of this research is to build a perfume recommendation system. This system will help the user to get required perfumes. For that user has to provide description as a search query about the perfume according to his interest. This description can contain feelings, emotions, description, likes, dislikes and brand of the perfume. A chat bot will help the user to get the input in the form of search query and then provide the output as a recommended perfume what user is looking for. Initial work for research is collecting a data. Data required for this research contained the details in the form of name, brand, text descriptions, reviews, a list of notes. As we are using natural language processing, the text data must be pre-processed. It covers some tasks like making text data to lower case, removing stop words, tokenization, stemming, etc. shows tasks of pre-processing of data. Lowercasing – Lowercasing is the first step in data

3.4 PROBLEM SOLUTION FIT
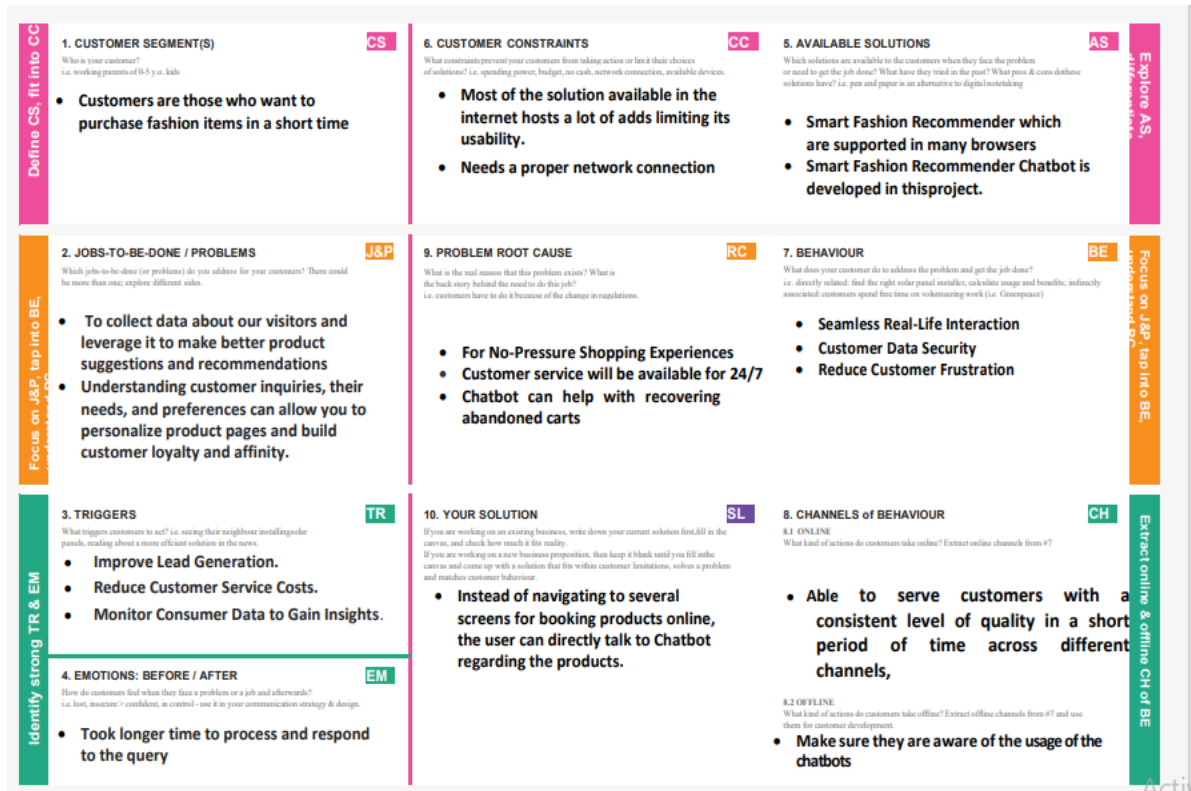
Fig 3.3-Problem Solution Fit

CHAPTER 4
REQUIREMENT ANALYSIS

4.1 FUNCTIONAL REQUIREMENT

FR No.	Functional Requirements	Sub Registration
FR-1	Registration	Registration can be done using mobile number or gmail and needed some user information
FR-2	Login	User only log in by user id and password,Which is given during registration
FR-3	Delivery confirmation	Confirmation via email and phone number
FR-4	Assistance	Bot is integrated with the application to make the usability simple

Fig 4.1-Functional Requirements

FR No.	Functional Requirements	Sub Registration
FR-1	Registration	Registration can be done using mobile number or gmail and needed some user information
FR-2	Login	User only log in by user id and password,Which is given during registration
FR-3	Delivery confirmation	Confirmation via email and phone number
FR-4	Assistance	Bot is integrated with the application to make the usability simple

Fig 4.2-Functional Requirements

4.2 NON -FUNCTIONAL REQUIREMENT

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

CHAPTER 5

PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS
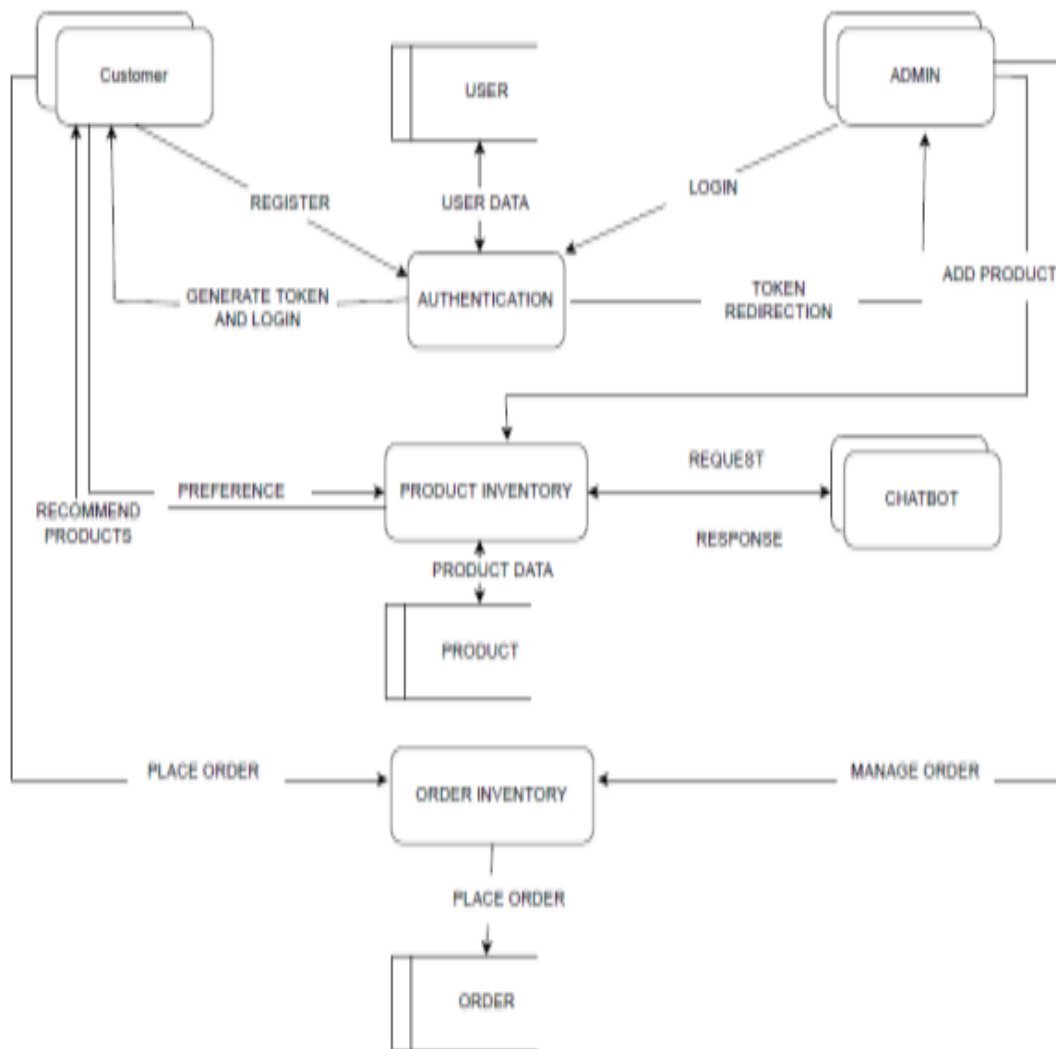
Fig 5.1-Data Flow Diagrams

5.2 SOLUTIONS & TECHNICAL ARCHITECTURE
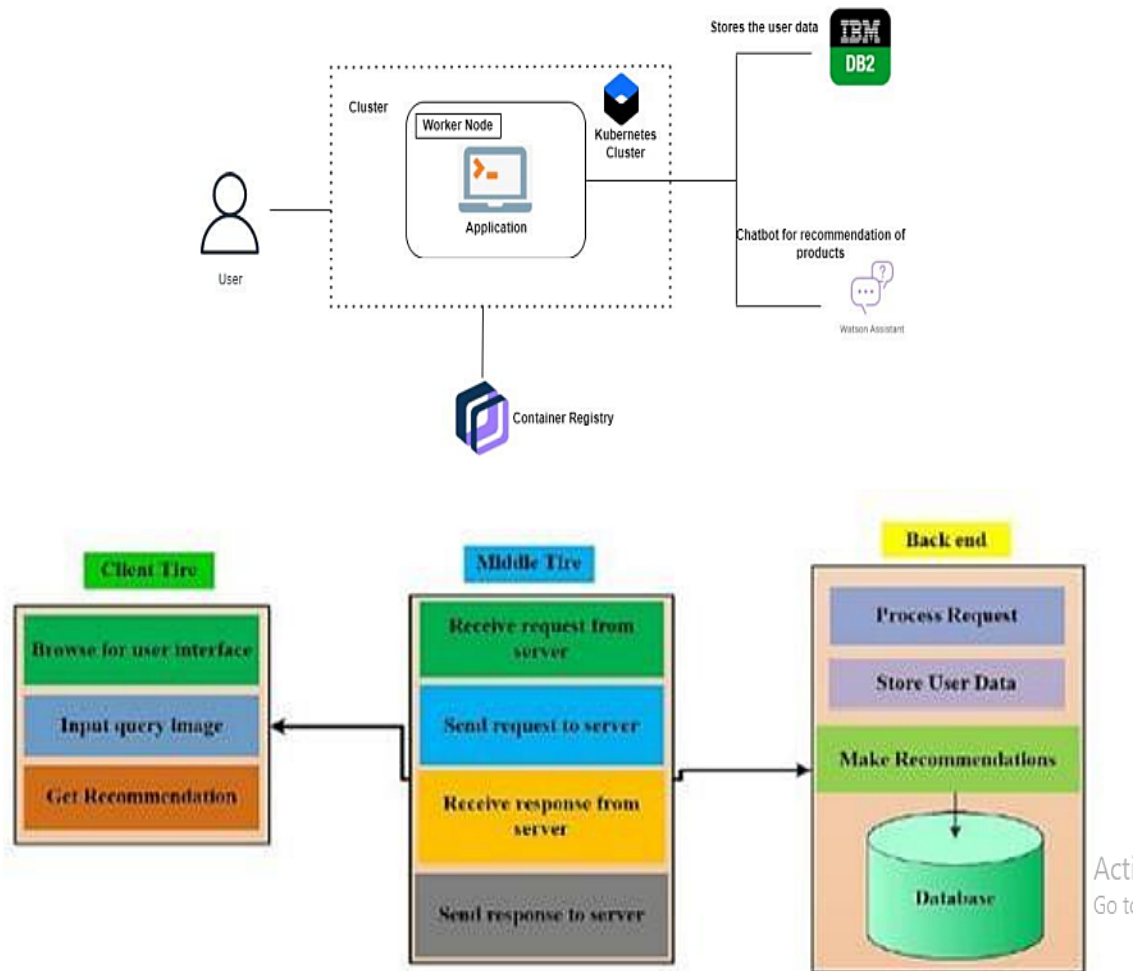
Fig 5.2-Solutions & Technical Architecture

CHAPTER 6

PROJECT PLANNING & SCHEDULING

Product Backlog, Sprint Schedule, and Estimation (4 Marks)

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-1	User Panel	USN-1	The user login into the website and go through the availability of products on it.	20	High	Mukilan M Pandiyaraj K
Sprint-2	Admin Panel	USN-2	The role of the admin is to check out the database of the product stock and track all the things that the customers are purchasing.	20	High	Masilamani M Ranjithkumar V
Sprint-3	Chat Bot	USN-3	The user can directly talk to Chatbot about the products. Get the recommendations based on the information provided by the users.	20	High	Masilamani M Mukilan M Pandiyaraj K
Sprint-4	Final delivery	USN-4	Container of applications using kubernetes and deployment of the application. Create the documentaion and final submit the application.	20	High	Kishorepaari M Ranjithkumar V

Fig 6.1-Project Planning Phase

CHAPTER 7

CODING & SOLUTIONS

7.1 FEATURES 1

```python
from flask import Flask, render_template, flash, request,session
from flask import Flask, render_template, request, jsonify
import datetime
import re




import ibm_db
import pandas
import ibm_db_dbi
from sqlalchemy import create_engine


engine = create_engine('sqlite://',
            echo = False)


dsn_hostname="1bbf73c5-d84a-4bb0-85b9-
ab1a4348f4a4.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud"
dsn_uid = "gqw63760"
dsn_pwd = "vV4w84opARRA2SxN"


dsn_driver = "{IBM DB2 ODBC DRIVER}"
dsn_database = "bludb"
dsn_port = "32286"
```

```python
    dsn_protocol = "TCPIP"
    dsn_security = "SSL"


    dsn = (
      "DRIVER={0};"
      "DATABASE={1};"
      "HOSTNAME={2};"
      "PORT={3};"
      "PROTOCOL={4};"
      "UID={5};"
      "PWD={6};"
          "SECURITY={7};").format(dsn_driver, dsn_database, dsn_hostname, dsn_port,
dsn_protocol, dsn_uid, dsn_pwd,dsn_security)




    try:
      conn = ibm_db.connect(dsn, "", "")
        print ("Connected to database: ", dsn_database, "as user: ", dsn_uid, "on host: ",
dsn_hostname)

    except:
      print ("Unable to connect: ", ibm_db.conn_errormsg() )



    app = Flask(__name__)
    app.config.from_object(__name__)
    app.config['SECRET_KEY'] = '7d441f27d441f27567d441f2b6176a'
```

```python
@app.route("/")
def homepage():

    return render_template('index.html')


@app.route("/AdminLogin")
def AdminLogin():

    return render_template('AdminLogin.html')


@app.route("/NewUser")
def NewUser():

    return render_template('NewUser.html')
@app.route("/UserLogin")
def UserLogin():

    return render_template('UserLogin.html')
@app.route("/AdminHome")
def AdminHome():

    conn = ibm_db.connect(dsn, "", "")
    pd_conn = ibm_db_dbi.Connection(conn)

    selectQuery = "SELECT * from regtb "
    dataframe = pandas.read_sql(selectQuery, pd_conn)
```

```python
    dataframe.to_sql('Employee_Data',
            con=engine,
            if_exists='append')


    # run a sql query
    data = engine.execute("SELECT * FROM Employee_Data").fetchall()


    return render_template('AdminHome.html', data=data)



@app.route("/NewProduct")
def NewProduct():

    return render_template('NewProduct.html')


@app.route("/ProductInfo")
def ProductInfo():
    conn = ibm_db.connect(dsn, "", "")
    pd_conn = ibm_db_dbi.Connection(conn)


    selectQuery = "SELECT * from protb "
    dataframe = pandas.read_sql(selectQuery, pd_conn)


    dataframe.to_sql('Employee_Data',
            con=engine,
            if_exists='append')


    # run a sql query
    print(engine.execute("SELECT * FROM Employee_Data").fetchall())
```

```
        return render_template('ProductInfo.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())




    @app.route("/SalesInfo")
    def SalesInfo():

        return render_template('SalesInfo.html')






    @app.route("/Search")
    def Search():

        conn = ibm_db.connect(dsn, "", "")
        pd_conn = ibm_db_dbi.Connection(conn)

        selectQuery = "SELECT * from protb "
        dataframe = pandas.read_sql(selectQuery, pd_conn)

        dataframe.to_sql('Employee_Data',
                    con=engine,
                    if_exists='append')

        # run a sql query
```

```python
        print(engine.execute("SELECT * FROM Employee_Data").fetchall())


        return render_template('ViewProduct.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())




    @app.route("/viewproduct", methods=['GET', 'POST'])
    def viewproduct():

        searc = request.form['subcat']




        conn = ibm_db.connect(dsn, "", "")
        pd_conn = ibm_db_dbi.Connection(conn)


        selectQuery =  "SELECT * from protb where SubCategory like '%" + searc + "%' "
        dataframe = pandas.read_sql(selectQuery, pd_conn)


        dataframe.to_sql('Employee_Data',
                con=engine,
                if_exists='append')


        # run a sql query
        print(engine.execute("SELECT * FROM Employee_Data").fetchall())
```

```python
        return  render_template('ViewProduct.html',  data=engine.execute("SELECT  *  FROM
Employee_Data").fetchall())
    @app.route("/RNewUser", methods=['GET', 'POST'])
    def RNewUser():
      if request.method == 'POST':


        name1 = request.form['name']
        gender1 = request.form['gender']
        Age = request.form['age']
        email = request.form['email']
        address = request.form['address']
        pnumber = request.form['phone']
        uname = request.form['uname']
        password = request.form['psw']


        conn = ibm_db.connect(dsn, "", "")


         insertQuery = "INSERT INTO regtb VALUES ('" + name1 + "','" + gender1 + "','" +
Age + "','" + email + "','" + pnumber + "','" + password + "','" + uname + "','" + address + "')"
        insert_table = ibm_db.exec_immediate (conn, insertQuery)
        print(insert_table)






        return render_template('userlogin.html')
```

```python
@app.route("/RNewProduct", methods=['GET', 'POST'])
def RNewProduct():
    if request.method == 'POST':


        file = request.files['fileupload']
        file.save("static/upload/" + file.filename)


        ProductId =request.form['pid']
        Gender =request.form['gender']
        Category =request.form['cat']
        SubCategory=request.form['subcat']
        ProductType=request.form['ptype']
        Colour=request.form['color']
        Usage=request.form['usage']
        ProductTitle=request.form['ptitle']
        price = request.form['price']
        Image= file.filename
        ImageURL="static/upload/" + file.filename



        conn = ibm_db.connect(dsn, "", "")


        insertQuery = "INSERT INTO protb VALUES ('"+ ProductId +"','" + Gender + "','" +
Category + "','" + SubCategory + "','" + ProductType + "','" + Colour + "','"+Usage
+"','"+ProductTitle+"','"+ Image +"','"+ ImageURL +"','"+ price +"')"
```

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```python
            insert_table = ibm_db.exec_immediate(conn, insertQuery)


        data1 = 'Record Saved!'
        return render_template('goback.html', data=data1)


    @app.route("/userlogin", methods=['GET', 'POST'])
    def userlogin():
        error = None
        if request.method == 'POST':
            username = request.form['uname']
            password = request.form['password']
            session['uname'] = request.form['uname']



            conn = ibm_db.connect(dsn, "", "")
            pd_conn = ibm_db_dbi.Connection(conn)


            selectQuery = "SELECT * from regtb where uname='" + username + "' and
password='" + password + "'"
            dataframe = pandas.read_sql(selectQuery, pd_conn)


            if dataframe.empty:
                data1 = 'Username or Password is wrong'
                return render_template('goback.html', data=data1)
            else:
                print("Login")
                selectQuery = "SELECT * from regtb where uname='" + username + "' and
password='" + password + "'"
                dataframe = pandas.read_sql(selectQuery, pd_conn)
```

```python
            dataframe.to_sql('Employee_Data',
                    con=engine,
                    if_exists='append')

        # run a sql query
        print(engine.execute("SELECT * FROM Employee_Data").fetchall())


            return render_template('UserHome.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())
    @app.route("/adminlogin", methods=['GET', 'POST'])
    def adminlogin():
        error = None
        if request.method == 'POST':
            username = request.form['uname']
            password = request.form['password']



            conn = ibm_db.connect(dsn, "", "")
            pd_conn = ibm_db_dbi.Connection(conn)


            selectQuery = "SELECT * from admintb where username='" + username + "' and
password='" + password + "'"
            dataframe = pandas.read_sql(selectQuery, pd_conn)


            if dataframe.empty:
                data1 = 'Username or Password is wrong'
```

```python
        return render_template('goback.html', data=data1)
            else:
                print("Login")
                selectQuery = "SELECT * from regtb "
                dataframe = pandas.read_sql(selectQuery, pd_conn)


                dataframe.to_sql('Employee_Data', con=engine,if_exists='append')


                # run a sql query
                print(engine.execute("SELECT * FROM Employee_Data").fetchall())


                    return render_template('AdminHome.html', data=engine.execute("SELECT *
FROM Employee_Data").fetchall())
        @app.route("/Remove", methods=['GET'])
        def Remove():



            pid = request.args.get('id')
            conn = ibm_db.connect(dsn, "", "")
            pd_conn = ibm_db_dbi.Connection(conn)


            insertQuery = "Delete from protb  where id='"+ pid +"'"
            insert_table = ibm_db.exec_immediate(conn, insertQuery)



            selectQuery = "SELECT * from protb "
            dataframe = pandas.read_sql(selectQuery, pd_conn)
```

```python
        dataframe.to_sql('Employee_Data',
                con=engine,
                if_exists='append')


    # run a sql query
    print(engine.execute("SELECT * FROM Employee_Data").fetchall())


        return render_template('ProductInfo.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())
    @app.route("/fullInfo")
    def fullInfo():
        pid = request.args.get('pid')
        session['pid'] = pid



        conn = ibm_db.connect(dsn, "", "")
        pd_conn = ibm_db_dbi.Connection(conn)


        selectQuery = "SELECT * FROM protb where ProductId='" + pid + "' "
        dataframe = pandas.read_sql(selectQuery, pd_conn)


        dataframe.to_sql('Employee_Data',
                con=engine,
                if_exists='append')


    # run a sql query
    print(engine.execute("SELECT * FROM Employee_Data").fetchall())
```

```python
        return render_template('ProductFullInfo.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())
    @app.route("/Book", methods=['GET', 'POST'])
    def Book():
        if request.method == 'POST':


            username = session['uname']
            pid = session['pid']


            qty = request.form['qty']


            ctype = request.form['ctype']
            cardno = request.form['cardno']
            cvno = request.form['cvno']


            Bookingid = ''
            ProductName =''
            uname= username
            Mobile=''
            Email=''
            Qty = qty
            Amount=''


            CardType = ctype
            CardNo = cardno
```

```python
CvNo = cvno
date = datetime.datetime.now().strftime('%d-%b-%Y')



conn = ibm_db.connect(dsn, "", "")
pd_conn = ibm_db_dbi.Connection(conn)
selectQuery = "SELECT * FROM protb where ProductId='" + pid + "' "
dataframe = pandas.read_sql(selectQuery, pd_conn)


dataframe.to_sql('Employee_Data',con=engine,if_exists='append')
data = engine.execute("SELECT * FROM Employee_Data").fetchall()
for item in data:
    ProductName = item[8]
    price = item[11]
    print(price)
    Amount = float(price) * float(Qty)


    print(Amount)

selectQuery1 ="SELECT  *  FROM  regtb where  uname='" + username + "'"
dataframe = pandas.read_sql(selectQuery1, pd_conn)


dataframe.to_sql('regtb', con=engine, if_exists='append')
data1 = engine.execute("SELECT * FROM regtb").fetchall()


for item1 in data1:
    Mobile = item1[5]
    Email = item1[4]
```

```python
selectQuery = "SELECT  *  FROM  booktb"
dataframe = pandas.read_sql(selectQuery, pd_conn)

dataframe.to_sql('booktb', con=engine, if_exists='append')
data2 = engine.execute("SELECT * FROM booktb").fetchall()
count = 0

for item in data2:
    count+=1




Bookingid="BOOKID00" + str(count)



    insertQuery = "INSERT INTO booktb VALUES ('" + Bookingid + "','"+ ProductName
+"','" + price + "','" + uname + "','" + Mobile + "','" + Email + "','" + str(Qty) + "','" + str(Amount) +
"','"+ str(CardType) +"','"+ str(CardNo) +"','"+ str(CvNo) +"','"+ str(date) +"')"
    insert_table = ibm_db.exec_immediate(conn, insertQuery)

    sendmsg(Email,"order received delivery in one week ")
```

```python
        selectQuery = "SELECT * FROM booktb where  uname= '" + uname + "' "
        dataframe = pandas.read_sql(selectQuery, pd_conn)


        dataframe.to_sql('booktb1', con=engine, if_exists='append')
        data = engine.execute("SELECT * FROM booktb1").fetchall()


        return render_template('UOrderInfo.html', data=data)




def sendmsg(Mailid,message):
    import smtplib
    from email.mime.multipart import MIMEMultipart
    from email.mime.text import MIMEText
    from email.mime.base import MIMEBase
    from email import encoders


    fromaddr = "sampletest685@gmail.com"
    toaddr = Mailid


    # instance of MIMEMultipart
    msg = MIMEMultipart()


    # storing the senders email address
    msg['From'] = fromaddr
```

```python
# storing the receivers email address
msg['To'] = toaddr

# storing the subject
msg['Subject'] = "Alert"

# string to store the body of the mail
body = message

# attach the body with the msg instance
msg.attach(MIMEText(body, 'plain'))

# creates SMTP session
s = smtplib.SMTP('smtp.gmail.com', 587)

# start TLS for security
s.starttls()

# Authentication
s.login(fromaddr, "hneucvnontsuwgpj")

# Converts the Multipart msg into a string
text = msg.as_string()

# sending the mail
s.sendmail(fromaddr, toaddr, text)

# terminating the session
s.quit()
```

```python
@app.route("/UOrderInfo")
def UOrderInfo():


    uname = session['uname']


    conn = ibm_db.connect(dsn, "", "")
    pd_conn = ibm_db_dbi.Connection(conn)
    selectQuery = "SELECT * FROM booktb where  uname= '" + uname + "' "
    dataframe = pandas.read_sql(selectQuery, pd_conn)
    dataframe.to_sql('booktb1', con=engine, if_exists='append')
    data = engine.execute("SELECT * FROM booktb1").fetchall()



    return render_template('UOrderInfo.html', data=data)



@app.route("/UserHome")
def UserHome():


    uname = session['uname']


    conn = ibm_db.connect(dsn, "", "")
    pd_conn = ibm_db_dbi.Connection(conn)
    selectQuery = "SELECT * FROM regtb where  uname= '" + uname + "' "
    dataframe = pandas.read_sql(selectQuery, pd_conn)
    dataframe.to_sql('booktb1', con=engine, if_exists='append')
```

```python
        data = engine.execute("SELECT * FROM booktb1").fetchall()


        return render_template('UserHome.html', data=data)



@app.route("/ASalesInfo")
def ASalesInfo():
    conn = ibm_db.connect(dsn, "", "")
    pd_conn = ibm_db_dbi.Connection(conn)
    selectQuery = "SELECT * FROM booktb  "
    dataframe = pandas.read_sql(selectQuery, pd_conn)
    dataframe.to_sql('booktb', con=engine, if_exists='append')
    data = engine.execute("SELECT * FROM booktb").fetchall()


    return render_template('ASalesInfo.html', data=data)


def main():
    app.run(debug=True, use_reloader=True)


if __name__ == '__main__':
    main()
```

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7.2 Feature 2

```html
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="UTF-8">
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
 <meta http-equiv="X-UA-Compatible" content="ie=edge">
 <title>Aroma Shop - Home</title>
      <link rel="icon" href="static/img/Fevicon.png" type="image/png">
 <link rel="stylesheet" href="static/vendors/bootstrap/bootstrap.min.css">
 <link rel="stylesheet" href="static/vendors/fontawesome/css/all.min.css">
      <link rel="stylesheet" href="static/vendors/themify-icons/themify-icons.css">
 <link rel="stylesheet" href="static/vendors/nice-select/nice-select.css">
 <link rel="stylesheet" href="static/vendors/owl-carousel/owl.theme.default.min.css">
 <link rel="stylesheet" href="static/vendors/owl-carousel/owl.carousel.min.css">


 <link rel="stylesheet" href="static/css/style.css">
</head>
<body>
 <!--================ Start Header Menu Area ================-->
      <header class="header_area">
  <div class="main_menu">
    <nav class="navbar navbar-expand-lg navbar-light">
     <div class="container">
      <a class="navbar-brand logo_h" href="index.html"><img src="static/img/logo.png"
alt=""></a>
       <button class="navbar-toggler" type="button" data-toggle="collapse" data-
```

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```
target="#navbarSupportedContent"

        aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle
navigation">

       <span class="icon-bar"></span>

       <span class="icon-bar"></span>

       <span class="icon-bar"></span>

     </button>

     <div class="collapse navbar-collapse offset" id="navbarSupportedContent">

       <ul class="nav navbar-nav menu_nav ml-auto mr-auto">

        <li class="nav-item active"><a class="nav-link" href="index.html">Home</a></li>

        <li class="nav-item submenu dropdown">

         <a href="#" class="nav-link dropdown-toggle" data-toggle="dropdown"
role="button" aria-haspopup="true"

            aria-expanded="false">Shop</a>

         <ul class="dropdown-menu">

          <li class="nav-item"><a class="nav-link" href="category.html">Shop
Category</a></li>

            <li class="nav-item"><a class="nav-link" href="single-product.html">Product
Details</a></li>

            <li class="nav-item"><a class="nav-link" href="checkout.html">Product
Checkout</a></li>

            <li class="nav-item"><a class="nav-link"
href="confirmation.html">Confirmation</a></li>

            <li class="nav-item"><a class="nav-link" href="cart.html">Shopping Cart</a></li>

          </ul>

                                              </li>

        <li class="nav-item submenu dropdown">

         <a href="#" class="nav-link dropdown-toggle" data-toggle="dropdown"
role="button" aria-haspopup="true"
```

```html
              aria-expanded="false">Blog</a>
          <ul class="dropdown-menu">
           <li class="nav-item"><a class="nav-link" href="blog.html">Blog</a></li>
           <li class="nav-item"><a class="nav-link" href="single-blog.html">Blog
Details</a></li>
          </ul>
                                              </li>
                                              <li class="nav-item submenu dropdown">
          <a href="#" class="nav-link dropdown-toggle" data-toggle="dropdown"
role="button" aria-haspopup="true"
              aria-expanded="false">Pages</a>
          <ul class="dropdown-menu">
           <li class="nav-item"><a class="nav-link" href="sign.html">Login</a></li>
           <li class="nav-item"><a class="nav-link" href="/register">Register</a></li>
           <li class="nav-item"><a class="nav-link" href="tracking-
order.html">Tracking</a></li>
           </ul>
          </li>
          <li class="nav-item"><a class="nav-link" href="contact.html">Contact</a></li>
         </ul>

        <ul class="nav-shop">
          <li class="nav-item"><button><i class="ti-search"></i></button></li>
          <li class="nav-item"><button><i class="ti-shopping-cart"></i><span class="nav-
shop__circle">3</span></button> </li>
          <li class="nav-item"><a class="button button-header" href="#">Buy Now</a></li>
         </ul>
       </div>
      </div>
```

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```html
        </nav>
      </div>
    </header>
            <!--================ End Header Menu Area ================-->


    <main class="site-main">


      <!--================ Hero banner start ================-->
      <section class="hero-banner">
        <div class="container">
          <div class="row no-gutters align-items-center pt-60px">
            <div class="col-5 d-none d-sm-block">
              <div class="hero-banner__img">
                <img class="img-fluid" src="static/img/home/hero-banner.png" alt="">
              </div>
            </div>
            <div class="col-sm-7 col-lg-6 offset-lg-1 pl-4 pl-md-5 pl-lg-0">
              <div class="hero-banner__content">
                <h4>Shop is fun</h4>
                <h1>Browse Our Premium Product</h1>
                <p>Us which over of signs divide dominion deep fill bring they're meat beho upon
own earth without morning over third. Their male dry. They are great appear whose land fly
grass.</p>
                <a class="button button-hero" href="#">Browse Now</a>
              </div>
            </div>
          </div>
        </div>
      </section>
```

```html
<!--=============== Hero banner start =================-->


<!--=============== Hero Carousel start =================-->
<section class="section-margin mt-0">
  <div class="owl-carousel owl-theme hero-carousel">
    <div class="hero-carousel__slide">
      <img src="img/home/hero-slide1.png" alt="" class="img-fluid">
      <a href="#" class="hero-carousel__slideOverlay">
        <h3>Wireless Headphone</h3>
        <p>Accessories Item</p>
      </a>
    </div>
    <div class="hero-carousel__slide">
      <img src="static/img/home/hero-slide2.png" alt="" class="img-fluid">
      <a href="#" class="hero-carousel__slideOverlay">
        <h3>Wireless Headphone</h3>
        <p>Accessories Item</p>
      </a>
    </div>
    <div class="hero-carousel__slide">
      <img src="static/img/home/hero-slide3.png" alt="" class="img-fluid">
      <a href="#" class="hero-carousel__slideOverlay">
        <h3>Wireless Headphone</h3>
        <p>Accessories Item</p>
      </a>
    </div>
  </div>
</section>
<!--=============== Hero Carousel end =================-->
```

```html
<!-- =============== trending product section start =============== -->
<section class="section-margin calc-60px">
  <div class="container">
    <div class="section-intro pb-60px">
      <p>Popular Item in the market</p>
      <h2>Trending <span class="section-intro__style">Product</span></h2>
    </div>
    <div class="row">
      <div class="col-md-6 col-lg-4 col-xl-3">
        <div class="card text-center card-product">
          <div class="card-product__img">
            <img class="card-img" src="static/img/product/product1.png" alt="">
            <ul class="card-product__imgOverlay">
              <li><button><i class="ti-search"></i></button></li>
              <li><button><i class="ti-shopping-cart"></i></button></li>
              <li><button><i class="ti-heart"></i></button></li>
            </ul>
          </div>
          <div class="card-body">
            <p>Accessories</p>
            <h4 class="card-product__title"><a href="single-product.html">Quartz Belt
Watch</a></h4>
            <p class="card-product__price">$150.00</p>
          </div>
        </div>
      </div>
      <div class="col-md-6 col-lg-4 col-xl-3">
        <div class="card text-center card-product">
```

```html
        <div class="card-product__img">
         <img class="card-img" src="static/img/product/product2.png" alt="">
         <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
         </ul>
        </div>
        <div class="card-body">
         <p>Beauty</p>
         <h4 class="card-product__title"><a href="single-product.html">Women
Freshwash</a></h4>
         <p class="card-product__price">$150.00</p>
        </div>
       </div>
      </div>
      <div class="col-md-6 col-lg-4 col-xl-3">
       <div class="card text-center card-product">
        <div class="card-product__img">
         <img class="card-img" src="static/img/product/product3.png" alt="">
         <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
         </ul>
        </div>
        <div class="card-body">
         <p>Decor</p>
         <h4 class="card-product__title"><a href="single-product.html">Room Flash
```

```html
Light</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>
  </div>
  <div class="col-md-6 col-lg-4 col-xl-3">
    <div class="card text-center card-product">
      <div class="card-product__img">
        <img class="card-img" src="static/img/product/product4.png" alt="">
        <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
        </ul>
      </div>
      <div class="card-body">
        <p>Decor</p>
        <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>
  </div>
  <div class="col-md-6 col-lg-4 col-xl-3">
    <div class="card text-center card-product">
      <div class="card-product__img">
        <img class="card-img" src="static/img/product/product5.png" alt="">
        <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
```

```html
      <li><button><i class="ti-shopping-cart"></i></button></li>

      <li><button><i class="ti-heart"></i></button></li>

     </ul>

    </div>

    <div class="card-body">

     <p>Accessories</p>

     <h4 class="card-product__title"><a href="single-product.html">Man Office
Bag</a></h4>

     <p class="card-product__price">$150.00</p>

    </div>

   </div>

  </div>

  <div class="col-md-6 col-lg-4 col-xl-3">

   <div class="card text-center card-product">

    <div class="card-product__img">

     <img class="card-img" src="static/img/product/product6.png" alt="">

     <ul class="card-product__imgOverlay">

      <li><button><i class="ti-search"></i></button></li>

      <li><button><i class="ti-shopping-cart"></i></button></li>

      <li><button><i class="ti-heart"></i></button></li>

     </ul>

    </div>

    <div class="card-body">

     <p>Kids Toy</p>

     <h4 class="card-product__title"><a href="single-product.html">Charging
Car</a></h4>

     <p class="card-product__price">$150.00</p>

    </div>

   </div>
```

```html
      </div>
      <div class="col-md-6 col-lg-4 col-xl-3">
       <div class="card text-center card-product">
        <div class="card-product__img">
         <img class="card-img" src="static/img/product/product7.png" alt="">
         <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
         </ul>
        </div>
        <div class="card-body">
         <p>Accessories</p>
         <h4 class="card-product__title"><a href="single-product.html">Blutooth
Speaker</a></h4>
          <p class="card-product__price">$150.00</p>
        </div>
       </div>
      </div>
      <div class="col-md-6 col-lg-4 col-xl-3">
       <div class="card text-center card-product">
        <div class="card-product__img">
         <img class="card-img" src="static/img/product/product8.png" alt="">
         <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
         </ul>
        </div>
```

```html
      <div class="card-body">
        <p>Kids Toy</p>
        <h4 class="card-product__title"><a href="#">Charging Car</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>
   </div>
  </div>
 </section>
 <!-- =============== trending product section end ================= -->


 <!-- =============== offer section start ================= -->
 <section class="offer" id="parallax-1" data-anchor-target="#parallax-1" data-300-
top="background-position: 20px 30px" data-top-bottom="background-position: 0 20px">
   <div class="container">
    <div class="row">
     <div class="col-xl-5">
      <div class="offer__content text-center">
        <h3>Up To 50% Off</h3>
        <h4>Winter Sale</h4>
        <p>Him she'd let them sixth saw light</p>
        <a class="button button--active mt-3 mt-xl-4" href="#">Shop Now</a>
      </div>
     </div>
    </div>
   </div>
 </section>
```

```html
<!-- =============== offer section end ================ -->


<!-- =============== Best Selling item  carousel ================ -->
<section class="section-margin calc-60px">
 <div class="container">
  <div class="section-intro pb-60px">
   <p>Popular Item in the market</p>
   <h2>Best <span class="section-intro__style">Sellers</span></h2>
  </div>
  <div class="owl-carousel owl-theme" id="bestSellerCarousel">
   <div class="card text-center card-product">
    <div class="card-product__img">
     <img class="img-fluid" src="static/img/product/product1.png" alt="">
     <ul class="card-product__imgOverlay">
      <li><button><i class="ti-search"></i></button></li>
      <li><button><i class="ti-shopping-cart"></i></button></li>
      <li><button><i class="ti-heart"></i></button></li>
     </ul>
    </div>
    <div class="card-body">
     <p>Accessories</p>
     <h4 class="card-product__title"><a href="single-product.html">Quartz Belt
Watch</a></h4>
      <p class="card-product__price">$150.00</p>
    </div>
   </div>


   <div class="card text-center card-product">
    <div class="card-product__img">
```

```html
          <img class="img-fluid" src="static/img/product/product2.png" alt="">
          <ul class="card-product__imgOverlay">
           <li><button><i class="ti-search"></i></button></li>
           <li><button><i class="ti-shopping-cart"></i></button></li>
           <li><button><i class="ti-heart"></i></button></li>
          </ul>
        </div>
        <div class="card-body">
         <p>Beauty</p>
         <h4 class="card-product__title"><a href="single-product.html">Women
Freshwash</a></h4>
          <p class="card-product__price">$150.00</p>
        </div>
      </div>


      <div class="card text-center card-product">
       <div class="card-product__img">
         <img class="img-fluid" src="static/img/product/product3.png" alt="">
         <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
         </ul>
       </div>
       <div class="card-body">
        <p>Decor</p>
        <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
         <p class="card-product__price">$150.00</p>
```

```html
      </div>
    </div>


    <div class="card text-center card-product">
     <div class="card-product__img">
       <img class="img-fluid" src="static/img/product/product4.png" alt="">
       <ul class="card-product__imgOverlay">
        <li><button><i class="ti-search"></i></button></li>
        <li><button><i class="ti-shopping-cart"></i></button></li>
        <li><button><i class="ti-heart"></i></button></li>
       </ul>
     </div>
     <div class="card-body">
       <p>Decor</p>
       <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
        <p class="card-product__price">$150.00</p>
     </div>
    </div>


    <div class="card text-center card-product">
     <div class="card-product__img">
       <img class="img-fluid" src="static/img/product/product1.png" alt="">
       <ul class="card-product__imgOverlay">
        <li><button><i class="ti-search"></i></button></li>
        <li><button><i class="ti-shopping-cart"></i></button></li>
        <li><button><i class="ti-heart"></i></button></li>
       </ul>
     </div>
```

```html
      <div class="card-body">
       <p>Accessories</p>
       <h4 class="card-product__title"><a href="single-product.html">Quartz Belt
Watch</a></h4>
       <p class="card-product__price">$150.00</p>
      </div>
     </div>


      <div class="card text-center card-product">
       <div class="card-product__img">
        <img class="img-fluid" src="static/img/product/product2.png" alt="">
        <ul class="card-product__imgOverlay">
         <li><button><i class="ti-search"></i></button></li>
         <li><button><i class="ti-shopping-cart"></i></button></li>
         <li><button><i class="ti-heart"></i></button></li>
        </ul>
       </div>
       <div class="card-body">
        <p>Beauty</p>
        <h4 class="card-product__title"><a href="single-product.html">Women
 Freshwash</a></h4>
        <p class="card-product__price">$150.00</p>
       </div>
      </div>


      <div class="card text-center card-product">
       <div class="card-product__img">
        <img class="img-fluid" src="static/img/product/product3.png" alt="">
        <ul class="card-product__imgOverlay">
```

```html
        <li><button><i class="ti-search"></i></button></li>
        <li><button><i class="ti-shopping-cart"></i></button></li>
        <li><button><i class="ti-heart"></i></button></li>
       </ul>
      </div>
      <div class="card-body">
       <p>Decor</p>
       <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
       <p class="card-product__price">$150.00</p>
      </div>
     </div>


     <div class="card text-center card-product">
      <div class="card-product__img">
       <img class="img-fluid" src="static/img/product/product4.png" alt="">
       <ul class="card-product__imgOverlay">
        <li><button><i class="ti-search"></i></button></li>
        <li><button><i class="ti-shopping-cart"></i></button></li>
        <li><button><i class="ti-heart"></i></button></li>
       </ul>
      </div>
      <div class="card-body">
       <p>Decor</p>
       <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
       <p class="card-product__price">$150.00</p>
      </div>
     </div>
```

```
      </div>

    </div>

  </section>

  <!-- =============== Best Selling item  carousel end ================ -->


  <!-- =============== Blog section start ================ -->
  <section class="blog">
   <div class="container">
     <div class="section-intro pb-60px">
       <p>Popular Item in the market</p>
       <h2>Latest <span class="section-intro__style">News</span></h2>
     </div>


     <div class="row">
       <div class="col-md-6 col-lg-4 mb-4 mb-lg-0">
         <div class="card card-blog">
           <div class="card-blog__img">
             <img class="card-img rounded-0" src="static/img/blog/blog1.png" alt="">
           </div>
           <div class="card-body">
             <ul class="card-blog__info">
               <li><a href="#">By Admin</a></li>
               <li><a href="#"><i class="ti-comments-smiley"></i> 2 Comments</a></li>
             </ul>
             <h4 class="card-blog__title"><a href="single-blog.html">The Richland Center
Shooping News and weekly shooper</a></h4>
             <p>Let one fifth i bring fly to divided face for bearing divide unto seed. Winged
divided light Forth.</p>
             <a class="card-blog__link" href="#">Read More <i class="ti-arrow-
```

```
right"></i></a>
        </div>
      </div>
    </div>


    <div class="col-md-6 col-lg-4 mb-4 mb-lg-0">
     <div class="card card-blog">
      <div class="card-blog__img">
       <img class="card-img rounded-0" src="static/img/blog/blog2.png" alt="">
      </div>
      <div class="card-body">
       <ul class="card-blog__info">
        <li><a href="#">By Admin</a></li>
        <li><a href="#"><i class="ti-comments-smiley"></i> 2 Comments</a></li>
       </ul>
       <h4 class="card-blog__title"><a href="single-blog.html">The Shopping News
also offers top-quality printing services</a></h4>
       <p>Let one fifth i bring fly to divided face for bearing divide unto seed. Winged
divided light Forth.</p>
       <a class="card-blog__link" href="#">Read More <i class="ti-arrow-
right"></i></a>
      </div>
     </div>
    </div>


    <div class="col-md-6 col-lg-4 mb-4 mb-lg-0">
     <div class="card card-blog">
      <div class="card-blog__img">
       <img class="card-img rounded-0" src="static/img/blog/blog3.png" alt="">
```

```html
          </div>
          <div class="card-body">
           <ul class="card-blog__info">
            <li><a href="#">By Admin</a></li>
            <li><a href="#"><i class="ti-comments-smiley"></i> 2 Comments</a></li>
           </ul>
           <h4 class="card-blog__title"><a href="single-blog.html">Professional design staff
and efficient equipment you'll find we offer</a></h4>
           <p>Let one fifth i bring fly to divided face for bearing divide unto seed. Winged
divided light Forth.</p>
           <a class="card-blog__link" href="#">Read More <i class="ti-arrow-
right"></i></a>
          </div>
         </div>
        </div>
       </div>
      </section>
      <!-- =============== Blog section end ================ -->


      <!-- =============== Subscribe section start ================ -->
      <section class="subscribe-position">
       <div class="container">
        <div class="subscribe text-center">
         <h3 class="subscribe__title">Get Update From Anywhere</h3>
         <p>Bearing Void gathering light light his eavening unto dont afraid</p>
         <div id="mc_embed_signup">
          <form target="_blank" action="https://spondonit.us12.list-
manage.com/subscribe/post?u=1462626880ade1ac87bd9c93a&amp;id=92a4423d01"
```

```
method="get" class="subscribe-form form-inline mt-5 pt-1">
          <div class="form-group ml-sm-auto">
           <input class="form-control mb-1" type="email" name="EMAIL"
placeholder="Enter your email" onfocus="this.placeholder = "" onblur="this.placeholder =
'Your Email Address '" >
           <div class="info"></div>
          </div>
          <button class="button button-subscribe mr-auto mb-1" type="submit">Subscribe
Now</button>
          <div style="position: absolute; left: -5000px;">
           <input name="b_36c4fd991d266f23781ded980_aefe40901a" tabindex="-1"
value="" type="text">
          </div>


         </form>
       </div>


      </div>
    </div>
   </section>
   <!-- =============== Subscribe section end ================ -->
 </main>
  <!--=============== Start footer Area  =================-->
       <footer class="footer">
               <div class="footer-area">
                      <div class="container">
                             <div class="row section_gap">
                                    <div class="col-lg-3 col-md-6 col-sm-6">
                                           <div class="single-footer-widget tp_widgets">
```

```html
                                    <h4 class="footer_title large_title">Our
Mission</h4>
                                    <p>
                                        So seed seed green that winged
cattle in. Gathering thing made fly you're no
                                        divided deep moved us lan
Gathering thing us land years living.
                                    </p>
                                    <p>
                                        So seed seed green that winged
cattle in. Gathering thing made fly you're no divided deep moved
                                    </p>
                                </div>
                            </div>
                            <div class="offset-lg-1 col-lg-2 col-md-6 col-sm-6">
                                <div class="single-footer-widget tp_widgets">
                                    <h4 class="footer_title">Quick
Links</h4>
                                    <ul class="list">
                                        <li><a href="#">Home</a></li>
                                        <li><a href="#">Shop</a></li>
                                        <li><a href="#">Blog</a></li>
                                        <li><a
href="#">Product</a></li>
                                        <li><a href="#">Brand</a></li>
                                        <li><a
href="#">Contact</a></li>
                                    </ul>
                                </div>
```

```
                                           </div>
                                  <div class="col-lg-2 col-md-6 col-sm-6">
                                          <div class="single-footer-widget instafeed">
                                                  <h4 class="footer_title">Gallery</h4>
                                                  <ul class="list instafeed d-flex flex-
wrap">

                                                          <li><img
src="static/img/gallery/r1.jpg" alt=""></li>
                                                          <li><img
src="static/img/gallery/r2.jpg" alt=""></li>
                                                          <li><img
src="static/img/gallery/r3.jpg" alt=""></li>
                                                          <li><img
src="static/img/gallery/r5.jpg" alt=""></li>
                                                          <li><img
src="static/img/gallery/r7.jpg" alt=""></li>
                                                          <li><img
src="static/mg/gallery/r8.jpg" alt=""></li>
                                                  </ul>
                                          </div>
                                  </div>
                                  <div class="offset-lg-1 col-lg-3 col-md-6 col-sm-6">
                                          <div class="single-footer-widget tp_widgets">
                                                  <h4 class="footer_title">Contact
Us</h4>

                                                  <div class="ml-40">
                                                          <p class="sm-head">
                                                                  <span class="fa fa-
location-arrow"></span>
```

```
                                    Head Office
            </p>
            <p>123, Main Street, Your
City</p>


            <p class="sm-head">
                    <span class="fa fa-
phone"></span>

                    Phone Number
            </p>
            <p>

                    +123 456 7890 <br>
                    +123 456 7890
            </p>


            <p class="sm-head">
                    <span class="fa fa-
envelope"></span>

                    Email
            </p>
            <p>

                    free@infoexample.com
<br>

                    www.infoexample.com
            </p>
        </div>
      </div>
    </div>
  </div>
```

```html
                        </div>
                </div>


                <div class="footer-bottom">
                        <div class="container">
                                <div class="row d-flex">
                                        <p class="col-lg-12 footer-text text-center">
                                                <!-- Link back to Colorlib can't be removed.
Template is licensed under CC BY 3.0. -->
Copyright &copy;<script>document.write(new Date().getFullYear());</script> All rights
reserved | This template is made with <i class="fa fa-heart" aria-hidden="true"></i> by <a
href="https://colorlib.com" target="_blank">Colorlib</a>
<!-- Link back to Colorlib can't be removed. Template is licensed under CC BY 3.0. --></p>
                                </div>
                        </div>
                </div>
        </footer>
        <!--================ End footer Area  ==================-->
  <script src="static/vendors/jquery/jquery-3.2.1.min.js"></script>
  <script src="static/vendors/bootstrap/bootstrap.bundle.min.js"></script>
  <script src="static/vendors/skrollr.min.js"></script>
  <script src="static/vendors/owl-carousel/owl.carousel.min.js"></script>
  <script src="static/vendors/nice-select/jquery.nice-select.min.js"></script>
  <script src="static/vendors/jquery.ajaxchimp.min.js"></script>
  <script src="static/vendors/mail-script.js"></script>
  <script src="static/js/main.js"></script>
</body>
</html>
```

CHAPTER 8

SYSTEM TESTING

The purpose of testing is to discover errors. Testing is the process of trying to discover every conceivable fault or weakness in a work product. It provides a way to check the functionality of components, sub-assemblies, assemblies and/or a finished product It is the process of exercising software with the intent of ensuring that the Software system meets its requirements and user expectations and does not fail in an unacceptable manner. There are various types of test. Each test type addresses a specific testing requirement.

8.1 TYPES OF TESTS

8.1.1 Unit testing

Unit testing involves the design of test cases that validate that the internal program logic is functioning properly, and that program inputs produce valid outputs. All decision branches and internal code flow should be validated. It is the testing of individual software units of the application .it is done after the completion of an individual unit before integration. This is a structural testing, that relies on knowledge of its construction and is invasive. Unit tests perform basic tests at component level and test a specific business process, application, and/or system configuration. Unit tests ensure that each unique path of a business process performs accurately to the documented specifications and contains clearly defined inputs and expected results.

8.1.2 Integration testing

Integration tests are designed to test integrated software components to determine if they actually run as one program. Testing is event driven and is more concerned with the basic outcome of screens or fields. Integration tests demonstrate that although the components were individually satisfaction, as shown by successfully unit testing, the

combination of components is correct and consistent. Integration testing is specifically aimed at   exposing the problems that arise from the combination of components.

8.1.3 Functional test

 Functional tests provide systematic demonstrations that functions tested are available as specified by the business and technical requirements, system documentation, and user manuals.

Functional testing is centered on the following items:

Valid Input   : identified classes of valid input must be accepted.

Invalid Input   : identified classes of invalid input must be rejected.

Functions   : identified functions must be exercised.

Output   : identified classes of application outputs must be exercised.

Systems/Procedures: interfacing systems or procedures must be invoked.

Organization and preparation of functional tests is focused on requirements, key functions, or special test cases. In addition, systematic coverage pertaining to identify Business process flows; data fields, predefined processes, and successive processes must be considered for testing. Before functional testing is complete, additional tests are identified and the effective value of current tests is determined.

8.1.4 System Test

System testing ensures that the entire integrated software system meets requirements. It tests a configuration to ensure known and predictable results. An example of system testing is the configuration-oriented system integration test. System testing is based on process descriptions and flows, emphasizing pre-driven process links and integration points.

8.1.5 White Box Testing

White Box Testing is a testing in which in which the software tester has knowledge of the inner workings, structure and language of the software, or at least its purpose. It is purpose. It is used to test areas that cannot be reached from a black box level.

8.1.6 Black Box Testing

Black Box Testing is testing the software without any knowledge of the inner workings, structure or language of the module being tested. Black box tests, as most other kinds of tests, must be written from a definitive source document, such as specification or requirements document, such as specification or requirements document. It is a testing in which the software under test is treated, as a black box .you cannot "see" into it. The test provides inputs and responds to outputs without considering how the software works.

8.2 Unit Testing:

Unit testing is usually conducted as part of a combined code and unit test phase of the software lifecycle, although it is not uncommon for coding and unit testing to be conducted as two distinct phases.

8.2.1 Test strategy and approach

Field testing will be performed manually and functional tests will be written in detail.

8.2.2 Test objectives

- All field entries must work properly.
- Pages must be activated from the identified link.
- The entry screen, messages and responses must not be delayed.

8.2.3 Features to be tested

- Verify that the entries are of the correct format
- No duplicate entries should be allowed
- All links should take the user to the correct page.

8.3 Integration Testing

Software integration testing is the incremental integration testing of two or more integrated software components on a single platform to produce failures caused by interface defects. The task of the integration test is to check that components or software applications, e.g. components in a software system or – one step up – software applications at the company level – interact without error.

Test Results: All the test cases mentioned above passed successfully. No defects encountered.

6.4 Acceptance Testing

User Acceptance Testing is a critical phase of any project and requires significant participation by the end user. It also ensures that the system meets the functional requirements.

Test Results: All the test cases mentioned above passed successfully. No defects encountered.

CHAPTER 9

RESULTS

9.1 Register
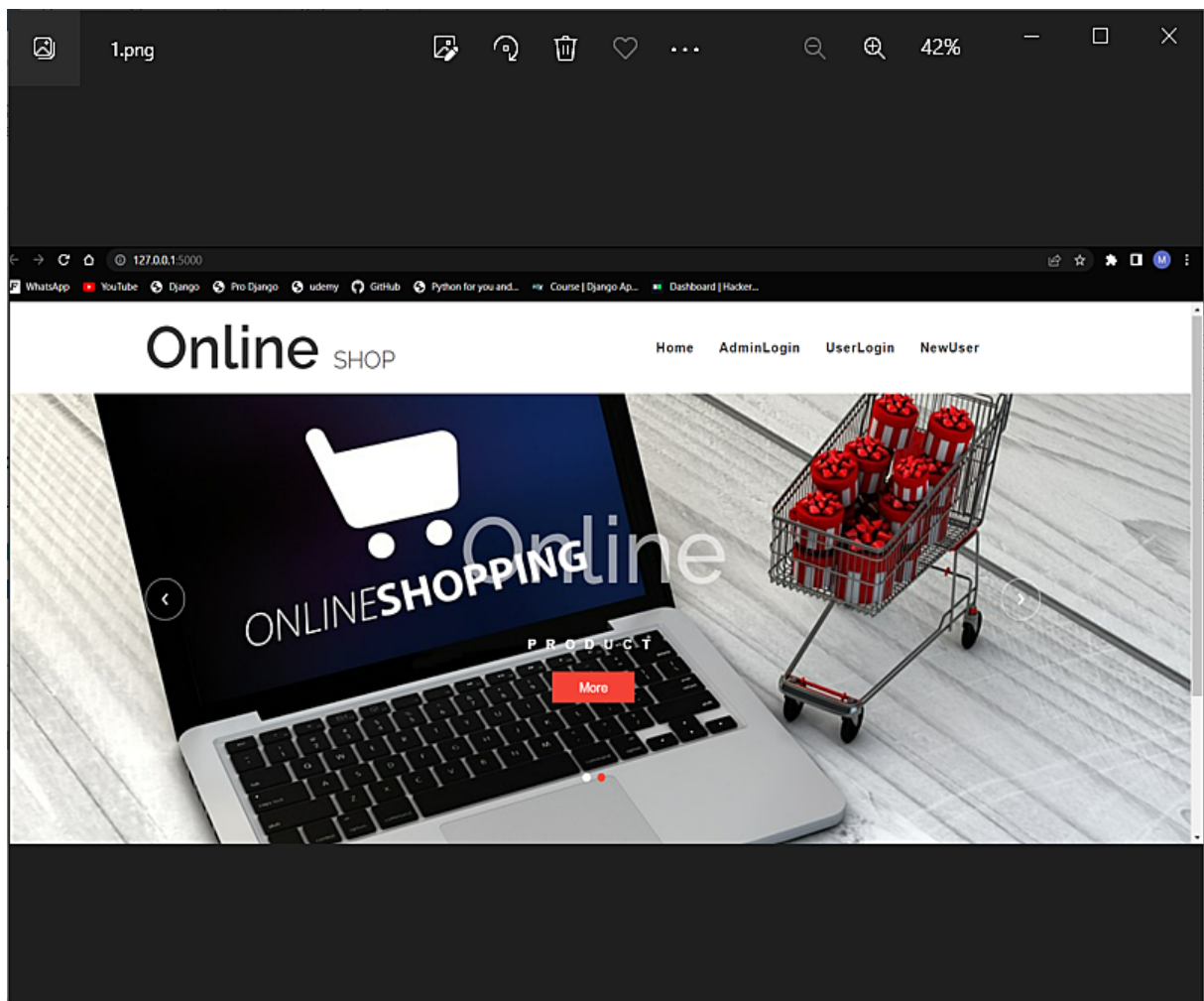
Fig 9.1 Register

9.2 Register

Fig 9.2 User Login

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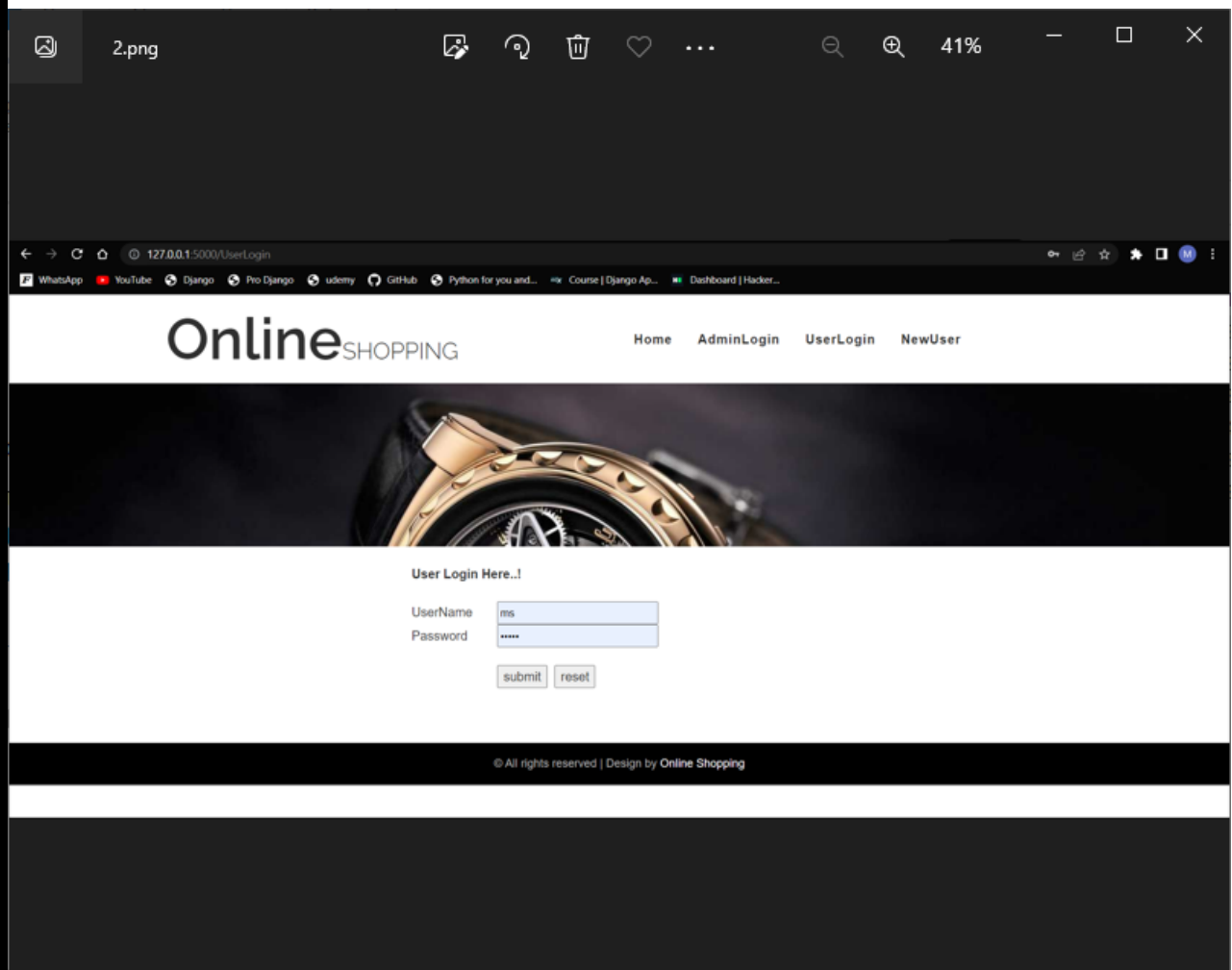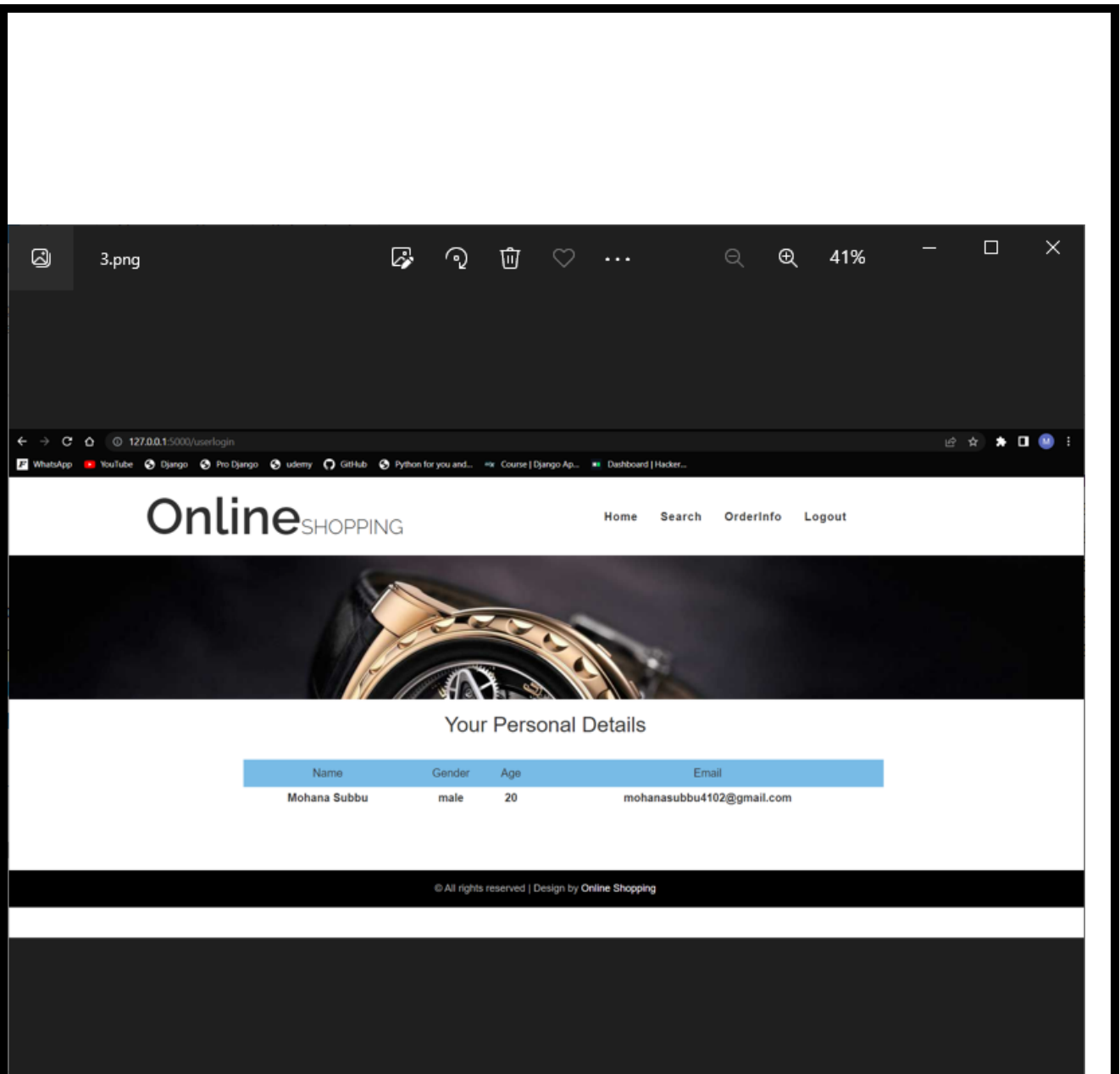
Fig 9.3 Personal Details

9.3 Product search
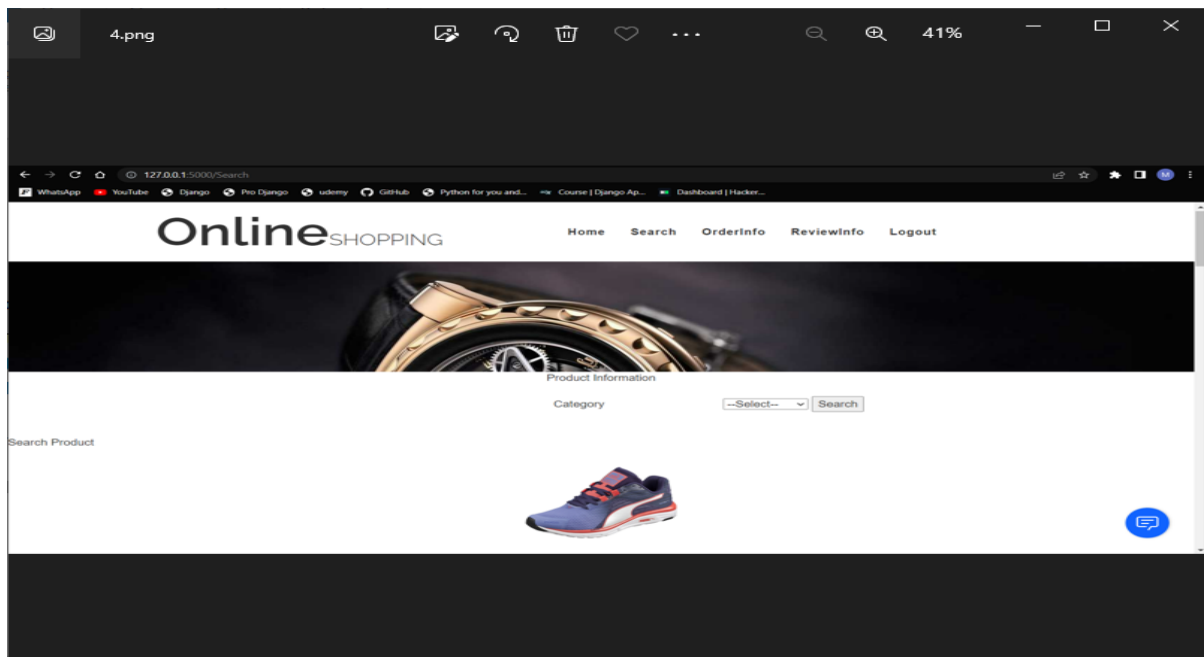
Fig 9.4 Product information
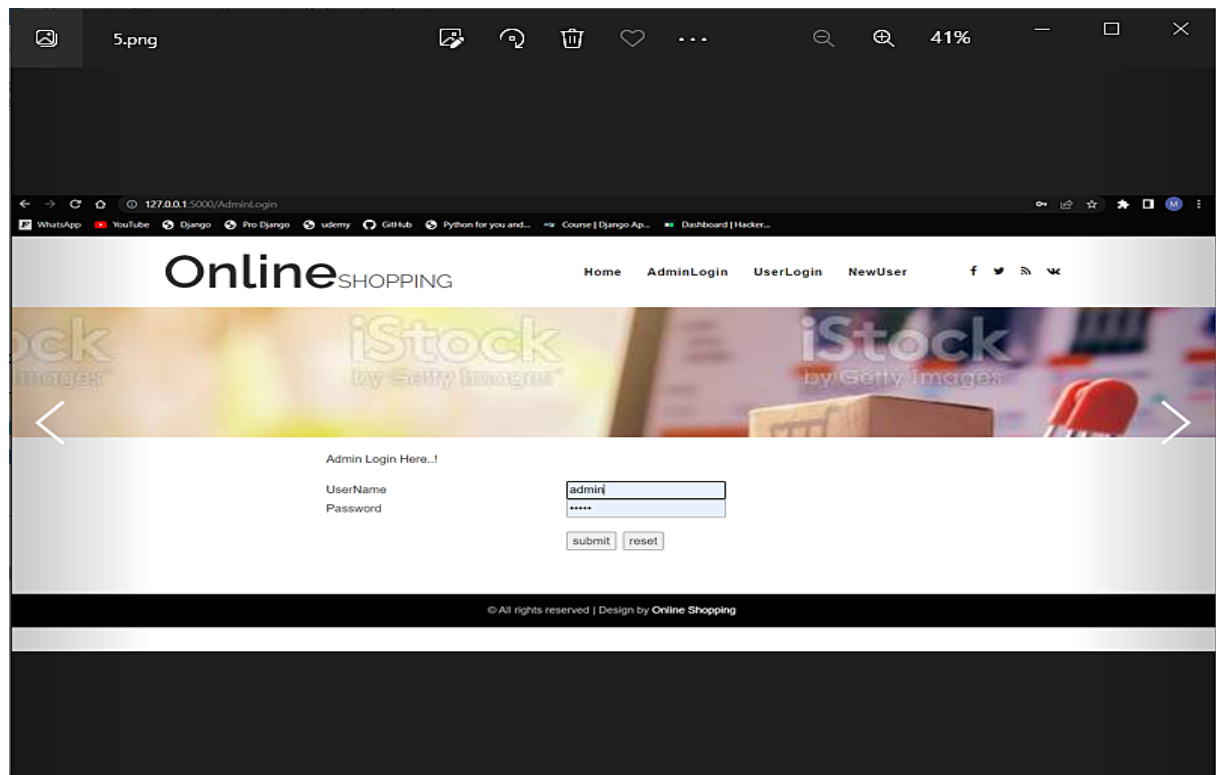
Fig 9.5 Admin Login
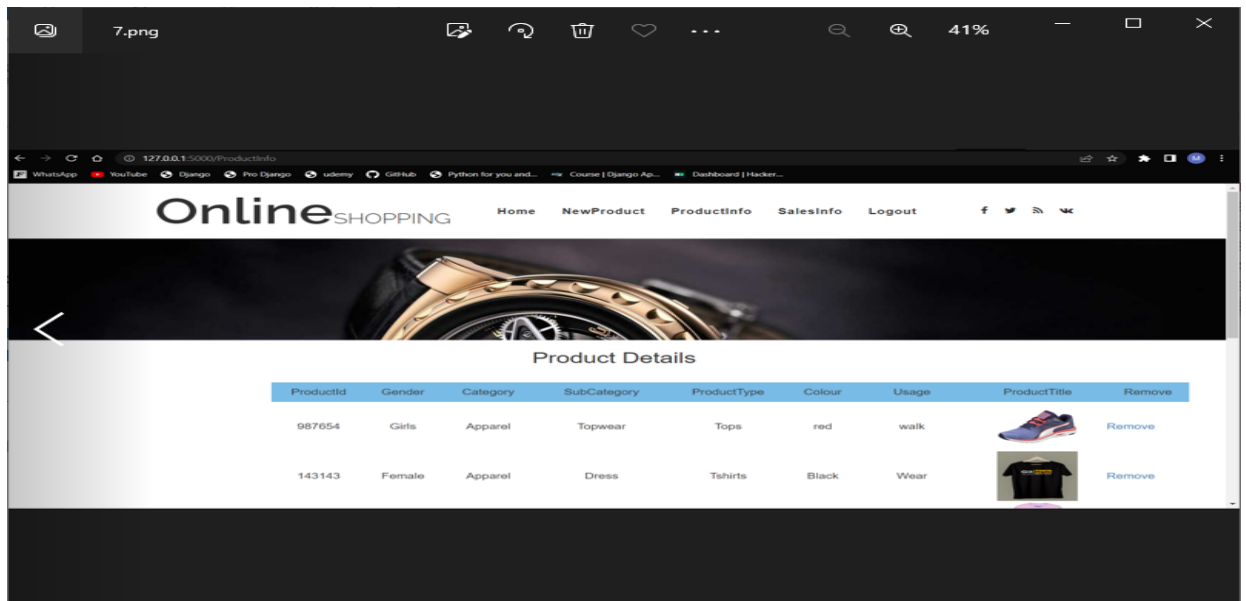
Fig 9.6 Product Details

CHAPTER 10

ADVANTAGES & DISADVANTAGES

Advantages:

1.good customer satisfaction

2.The performance is better in terms of quality and time.

3. It provides the better use of the database which store user and product history.

4. Quality prediction, Scalability, Prediction, speed are the main advantages of the proposed scheme.

Disadvantages:

1.   Too many choices. ...

2.   The complex onboarding process. ...

3.   Lack of data analytics capability. ...

4.   The 'cold start' problem. ...

5.   Inability to capture changes in user behavior. ...

6.   Privacy concerns.

CONCLUSIONS

In we developed product recommendation system using chat bot-based applications we developed here recomment the product list , Recommender Systems have been widely used to exhibit the most appropriate items to users given their past consumption preferences. Recommendation systems are achieving great success in e-Commerce applications, during a live interaction with a customer; recommendation system may apply different techniques to solve the problem of making a correct and relevant product recommendation using chat bot

Flask framework designed here for product recommendation system

FUTURE SCOPE

In future work we designed the android based mobile applications for product recommendation

The objective of recommender systems is to provide recommendations based on recorded information on the users' preferences. These systems use information filtering techniques to process information and provide the user with potentially more relevant items.

APPENDIX

```python
from flask import Flask, render_template, flash, request,session
from flask import Flask, render_template, request, jsonify
import datetime
import re




import ibm_db
import pandas
import ibm_db_dbi
from sqlalchemy import create_engine


engine = create_engine('sqlite://',
            echo = False)


dsn_hostname                          =                          "1bbf73c5-d84a-4bb0-85b9-
ab1a4348f4a4.c3n41cmd0nqnrk39u98g.databases.appdomain.cloud"
dsn_uid = "gqw63760"
dsn_pwd = "vV4w84opARRA2SxN"


dsn_driver = "{IBM DB2 ODBC DRIVER}"
dsn_database = "bludb"
dsn_port = "32286"
dsn_protocol = "TCPIP"
dsn_security = "SSL"
```

```python
dsn = (
    "DRIVER={0};"
    "DATABASE={1};"
    "HOSTNAME={2};"
    "PORT={3};"
    "PROTOCOL={4};"
    "UID={5};"
    "PWD={6};"
        "SECURITY={7};").format(dsn_driver, dsn_database, dsn_hostname, dsn_port,
dsn_protocol, dsn_uid, dsn_pwd,dsn_security)




try:
    conn = ibm_db.connect(dsn, "", "")
        print ("Connected to database: ", dsn_database, "as user: ", dsn_uid, "on host: ",
dsn_hostname)


except:
    print ("Unable to connect: ", ibm_db.conn_errormsg() )



app = Flask(__name__)
app.config.from_object(__name__)
app.config['SECRET_KEY'] = '7d441f27d441f27567d441f2b6176a'



@app.route("/")
def homepage():
```

```python
    return render_template('index.html')


@app.route("/AdminLogin")
def AdminLogin():

    return render_template('AdminLogin.html')


@app.route("/NewUser")
def NewUser():

    return render_template('NewUser.html')
@app.route("/UserLogin")
def UserLogin():

    return render_template('UserLogin.html')


@app.route("/AdminHome")
def AdminHome():
```

```python
    conn = ibm_db.connect(dsn, "", "")
    pd_conn = ibm_db_dbi.Connection(conn)


    selectQuery = "SELECT * from regtb "
    dataframe = pandas.read_sql(selectQuery, pd_conn)


    dataframe.to_sql('Employee_Data',
            con=engine,
            if_exists='append')


  # run a sql query
  data = engine.execute("SELECT * FROM Employee_Data").fetchall()


  return render_template('AdminHome.html', data=data)



@app.route("/NewProduct")
def NewProduct():


  return render_template('NewProduct.html')


@app.route("/ProductInfo")
def ProductInfo():
  conn = ibm_db.connect(dsn, "", "")
  pd_conn = ibm_db_dbi.Connection(conn)


  selectQuery = "SELECT * from protb "
  dataframe = pandas.read_sql(selectQuery, pd_conn)
```

```python
        dataframe.to_sql('Employee_Data',

                con=engine,

                if_exists='append')


    # run a sql query
    print(engine.execute("SELECT * FROM Employee_Data").fetchall())


        return render_template('ProductInfo.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())




    @app.route("/SalesInfo")
    def SalesInfo():

        return render_template('SalesInfo.html')






    @app.route("/Search")
    def Search():

        conn = ibm_db.connect(dsn, "", "")
        pd_conn = ibm_db_dbi.Connection(conn)


        selectQuery = "SELECT * from protb "
        dataframe = pandas.read_sql(selectQuery, pd_conn)
```

```python
        dataframe.to_sql('Employee_Data',
                con=engine,
                if_exists='append')


    # run a sql query
    print(engine.execute("SELECT * FROM Employee_Data").fetchall())


        return render_template('ViewProduct.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())




    @app.route("/viewproduct", methods=['GET', 'POST'])
    def viewproduct():

      searc = request.form['subcat']




      conn = ibm_db.connect(dsn, "", "")
      pd_conn = ibm_db_dbi.Connection(conn)

      selectQuery =  "SELECT * from protb where SubCategory like '%" + searc + "%' "
      dataframe = pandas.read_sql(selectQuery, pd_conn)

      dataframe.to_sql('Employee_Data',
                con=engine,
```

```
                if_exists='append')


        # run a sql query
        print(engine.execute("SELECT * FROM Employee_Data").fetchall())


        return render_template('ViewProduct.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())




    @app.route("/RNewUser", methods=['GET', 'POST'])
    def RNewUser():
        if request.method == 'POST':


            name1 = request.form['name']
            gender1 = request.form['gender']
            Age = request.form['age']
            email = request.form['email']
            address = request.form['address']
            pnumber = request.form['phone']
            uname = request.form['uname']
            password = request.form['psw']


            conn = ibm_db.connect(dsn, "", "")


            insertQuery = "INSERT INTO regtb VALUES ('" + name1 + "','" + gender1 + "','" +
Age + "','" + email + "','" + pnumber + "','" + password + "','" + uname + "','" + address + "')"
            insert_table = ibm_db.exec_immediate (conn, insertQuery)
```

```python
        print(insert_table)




    return render_template('userlogin.html')

@app.route("/RNewProduct", methods=['GET', 'POST'])
def RNewProduct():
    if request.method == 'POST':


        file = request.files['fileupload']
        file.save("static/upload/" + file.filename)


        ProductId =request.form['pid']
        Gender =request.form['gender']
        Category =request.form['cat']
        SubCategory=request.form['subcat']
        ProductType=request.form['ptype']
        Colour=request.form['color']
        Usage=request.form['usage']
        ProductTitle=request.form['ptitle']
        price = request.form['price']
        Image= file.filename
        ImageURL="static/upload/" + file.filename
```

```python
        conn = ibm_db.connect(dsn, "", "")


        insertQuery = "INSERT INTO protb VALUES ('"+ ProductId +"','" + Gender + "','" +
Category + "','" + SubCategory + "','" + ProductType + "','" + Colour + "','"+Usage
+"','"+ProductTitle+"','"+ Image +"','"+ ImageURL +"','"+ price +"')"
        insert_table = ibm_db.exec_immediate(conn, insertQuery)


        data1 = 'Record Saved!'
        return render_template('goback.html', data=data1)




    @app.route("/userlogin", methods=['GET', 'POST'])
    def userlogin():
      error = None
      if request.method == 'POST':
        username = request.form['uname']
        password = request.form['password']
        session['uname'] = request.form['uname']


        conn = ibm_db.connect(dsn, "", "")
```

```python
        pd_conn = ibm_db_dbi.Connection(conn)


        selectQuery = "SELECT * from regtb where uname='" + username + "' and
password='" + password + "'"
        dataframe = pandas.read_sql(selectQuery, pd_conn)


    if dataframe.empty:
        data1 = 'Username or Password is wrong'
        return render_template('goback.html', data=data1)
    else:
        print("Login")
            selectQuery = "SELECT * from regtb where uname='" + username + "' and
password='" + password + "'"
        dataframe = pandas.read_sql(selectQuery, pd_conn)




        dataframe.to_sql('Employee_Data',
                con=engine,
                if_exists='append')


        # run a sql query
        print(engine.execute("SELECT * FROM Employee_Data").fetchall())


        return render_template('UserHome.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())
```

```python
@app.route("/adminlogin", methods=['GET', 'POST'])
def adminlogin():
    error = None
    if request.method == 'POST':
        username = request.form['uname']
        password = request.form['password']


        conn = ibm_db.connect(dsn, "", "")
        pd_conn = ibm_db_dbi.Connection(conn)


        selectQuery = "SELECT * from admintb where username='" + username + "' and password='" + password + "'"
        dataframe = pandas.read_sql(selectQuery, pd_conn)


        if dataframe.empty:
            data1 = 'Username or Password is wrong'
            return render_template('goback.html', data=data1)
        else:
            print("Login")
            selectQuery = "SELECT * from regtb "
            dataframe = pandas.read_sql(selectQuery, pd_conn)


            dataframe.to_sql('Employee_Data', con=engine,if_exists='append')


            # run a sql query
            print(engine.execute("SELECT * FROM Employee_Data").fetchall())
```

```python
            return render_template('AdminHome.html', data=engine.execute("SELECT *
FROM Employee_Data").fetchall())




    @app.route("/Remove", methods=['GET'])
    def Remove():



      pid = request.args.get('id')
      conn = ibm_db.connect(dsn, "", "")
      pd_conn = ibm_db_dbi.Connection(conn)


      insertQuery = "Delete from protb  where id='"+ pid +"'"
      insert_table = ibm_db.exec_immediate(conn, insertQuery)



      selectQuery = "SELECT * from protb "
      dataframe = pandas.read_sql(selectQuery, pd_conn)


      dataframe.to_sql('Employee_Data',
                con=engine,
                if_exists='append')


      # run a sql query
      print(engine.execute("SELECT * FROM Employee_Data").fetchall())
```

```python
        return  render_template('ProductInfo.html',  data=engine.execute("SELECT  *  FROM
Employee_Data").fetchall())




    @app.route("/fullInfo")
    def fullInfo():
        pid = request.args.get('pid')
        session['pid'] = pid



        conn = ibm_db.connect(dsn, "", "")
        pd_conn = ibm_db_dbi.Connection(conn)


        selectQuery = "SELECT * FROM protb where ProductId='" + pid + "' "
        dataframe = pandas.read_sql(selectQuery, pd_conn)


        dataframe.to_sql('Employee_Data',
                    con=engine,
                    if_exists='append')


        # run a sql query
        print(engine.execute("SELECT * FROM Employee_Data").fetchall())




         return render_template('ProductFullInfo.html', data=engine.execute("SELECT * FROM
Employee_Data").fetchall())
```

```python
@app.route("/Book", methods=['GET', 'POST'])
def Book():
    if request.method == 'POST':


        username = session['uname']
        pid = session['pid']


        qty = request.form['qty']


        ctype = request.form['ctype']
        cardno = request.form['cardno']
        cvno = request.form['cvno']



        Bookingid = ''
        ProductName =''
        uname= username
        Mobile=''
        Email=''
        Qty = qty
        Amount=''



        CardType = ctype
        CardNo = cardno
        CvNo = cvno
```

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```python
date = datetime.datetime.now().strftime('%d-%b-%Y')



conn = ibm_db.connect(dsn, "", "")
pd_conn = ibm_db_dbi.Connection(conn)
selectQuery = "SELECT * FROM protb where ProductId='" + pid + "' "
dataframe = pandas.read_sql(selectQuery, pd_conn)


dataframe.to_sql('Employee_Data',con=engine,if_exists='append')
data = engine.execute("SELECT * FROM Employee_Data").fetchall()
for item in data:
    ProductName = item[8]
    price = item[11]
    print(price)
    Amount = float(price) * float(Qty)


    print(Amount)

selectQuery1 ="SELECT  *  FROM  regtb where  uname='" + username + "'"
dataframe = pandas.read_sql(selectQuery1, pd_conn)


dataframe.to_sql('regtb', con=engine, if_exists='append')
data1 = engine.execute("SELECT * FROM regtb").fetchall()


for item1 in data1:
    Mobile = item1[5]
    Email = item1[4]
```

```python
selectQuery = "SELECT  *  FROM  booktb"
dataframe = pandas.read_sql(selectQuery, pd_conn)

dataframe.to_sql('booktb', con=engine, if_exists='append')
data2 = engine.execute("SELECT * FROM booktb").fetchall()
count = 0

for item in data2:
    count+=1




Bookingid="BOOKID00" + str(count)



 insertQuery = "INSERT INTO booktb VALUES ('" + Bookingid + "','"+ ProductName
+"','" + price + "','" + uname + "','" + Mobile + "','" + Email + "','" + str(Qty) + "','" + str(Amount) +
"','"+ str(CardType) +"','"+ str(CardNo) +"','"+ str(CvNo) +"','"+ str(date) +"')"
insert_table = ibm_db.exec_immediate(conn, insertQuery)

sendmsg(Email,"order received delivery in one week ")
```

```python
        selectQuery = "SELECT * FROM booktb where  uname= '" + uname + "' "
        dataframe = pandas.read_sql(selectQuery, pd_conn)


        dataframe.to_sql('booktb1', con=engine, if_exists='append')
        data = engine.execute("SELECT * FROM booktb1").fetchall()


        return render_template('UOrderInfo.html', data=data)




def sendmsg(Mailid,message):
    import smtplib
    from email.mime.multipart import MIMEMultipart
    from email.mime.text import MIMEText
    from email.mime.base import MIMEBase
    from email import encoders


    fromaddr = "sampletest685@gmail.com"
    toaddr = Mailid


    # instance of MIMEMultipart
    msg = MIMEMultipart()


    # storing the senders email address
    msg['From'] = fromaddr


    # storing the receivers email address
```

```python
msg['To'] = toaddr


# storing the subject
msg['Subject'] = "Alert"


# string to store the body of the mail
body = message


# attach the body with the msg instance
msg.attach(MIMEText(body, 'plain'))


# creates SMTP session
s = smtplib.SMTP('smtp.gmail.com', 587)


# start TLS for security
s.starttls()


# Authentication
s.login(fromaddr, "hneucvnontsuwgpj")


# Converts the Multipart msg into a string
text = msg.as_string()


# sending the mail
s.sendmail(fromaddr, toaddr, text)


# terminating the session
s.quit()
```

```python
@app.route("/UOrderInfo")
def UOrderInfo():

    uname = session['uname']


    conn = ibm_db.connect(dsn, "", "")
    pd_conn = ibm_db_dbi.Connection(conn)
    selectQuery = "SELECT * FROM booktb where  uname= '" + uname + "' "
    dataframe = pandas.read_sql(selectQuery, pd_conn)
    dataframe.to_sql('booktb1', con=engine, if_exists='append')
    data = engine.execute("SELECT * FROM booktb1").fetchall()



    return render_template('UOrderInfo.html', data=data)



@app.route("/UserHome")
def UserHome():

    uname = session['uname']



    conn = ibm_db.connect(dsn, "", "")
    pd_conn = ibm_db_dbi.Connection(conn)
    selectQuery = "SELECT * FROM regtb where  uname= '" + uname + "' "
    dataframe = pandas.read_sql(selectQuery, pd_conn)
    dataframe.to_sql('booktb1', con=engine, if_exists='append')
    data = engine.execute("SELECT * FROM booktb1").fetchall()
```

```python
        return render_template('UserHome.html', data=data)


    @app.route("/ASalesInfo")
    def ASalesInfo():
        conn = ibm_db.connect(dsn, "", "")
        pd_conn = ibm_db_dbi.Connection(conn)
        selectQuery = "SELECT * FROM booktb  "
        dataframe = pandas.read_sql(selectQuery, pd_conn)
        dataframe.to_sql('booktb', con=engine, if_exists='append')
        data = engine.execute("SELECT * FROM booktb").fetchall()


        return render_template('ASalesInfo.html', data=data)


    def main():
        app.run(debug=True, use_reloader=True)


    if __name__ == '__main__':
        main()
```

Html coding

```html
<!DOCTYPE html>
<html lang="en">
<head>
```

```html
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<meta http-equiv="X-UA-Compatible" content="ie=edge">
<title>Aroma Shop - Home</title>
        <link rel="icon" href="static/img/Fevicon.png" type="image/png">
<link rel="stylesheet" href="static/vendors/bootstrap/bootstrap.min.css">
<link rel="stylesheet" href="static/vendors/fontawesome/css/all.min.css">
        <link rel="stylesheet" href="static/vendors/themify-icons/themify-icons.css">
<link rel="stylesheet" href="static/vendors/nice-select/nice-select.css">
<link rel="stylesheet" href="static/vendors/owl-carousel/owl.theme.default.min.css">
<link rel="stylesheet" href="static/vendors/owl-carousel/owl.carousel.min.css">


<link rel="stylesheet" href="static/css/style.css">
</head>
<body>
<!--================ Start Header Menu Area ==================-->
        <header class="header_area">
  <div class="main_menu">
    <nav class="navbar navbar-expand-lg navbar-light">
      <div class="container">
        <a class="navbar-brand logo_h" href="index.html"><img src="static/img/logo.png"
alt=""></a>
        <button class="navbar-toggler" type="button" data-toggle="collapse" data-
target="#navbarSupportedContent"
        aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle
navigation">
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
        <span class="icon-bar"></span>
```

```
        </button>
        <div class="collapse navbar-collapse offset" id="navbarSupportedContent">
          <ul class="nav navbar-nav menu_nav ml-auto mr-auto">
            <li class="nav-item active"><a class="nav-link" href="index.html">Home</a></li>
            <li class="nav-item submenu dropdown">
              <a href="#" class="nav-link dropdown-toggle" data-toggle="dropdown" role="button"
aria-haspopup="true"
                aria-expanded="false">Shop</a>
              <ul class="dropdown-menu">
                <li class="nav-item"><a class="nav-link" href="category.html">Shop
Category</a></li>
                <li class="nav-item"><a class="nav-link" href="single-product.html">Product
Details</a></li>
                <li class="nav-item"><a class="nav-link" href="checkout.html">Product
Checkout</a></li>
                <li class="nav-item"><a class="nav-link"
href="confirmation.html">Confirmation</a></li>
                <li class="nav-item"><a class="nav-link" href="cart.html">Shopping Cart</a></li>
              </ul>
                                            </li>
            <li class="nav-item submenu dropdown">
              <a href="#" class="nav-link dropdown-toggle" data-toggle="dropdown" role="button"
aria-haspopup="true"
                aria-expanded="false">Blog</a>
              <ul class="dropdown-menu">
                <li class="nav-item"><a class="nav-link" href="blog.html">Blog</a></li>
                <li class="nav-item"><a class="nav-link" href="single-blog.html">Blog
Details</a></li>
              </ul>
```

```html
                                                      </li>
                                          <li class="nav-item submenu dropdown">
          <a href="#" class="nav-link dropdown-toggle" data-toggle="dropdown" role="button"
aria-haspopup="true"
            aria-expanded="false">Pages</a>
          <ul class="dropdown-menu">
            <li class="nav-item"><a class="nav-link" href="sign.html">Login</a></li>
            <li class="nav-item"><a class="nav-link" href="/register">Register</a></li>
            <li class="nav-item"><a class="nav-link" href="tracking-
order.html">Tracking</a></li>
          </ul>
        </li>
        <li class="nav-item"><a class="nav-link" href="contact.html">Contact</a></li>
      </ul>


      <ul class="nav-shop">
        <li class="nav-item"><button><i class="ti-search"></i></button></li>
        <li class="nav-item"><button><i class="ti-shopping-cart"></i><span class="nav-
shop__circle">3</span></button> </li>
        <li class="nav-item"><a class="button button-header" href="#">Buy Now</a></li>
      </ul>
     </div>
    </div>
   </nav>
  </div>
 </header>
      <!--=============== End Header Menu Area ==================-->


 <main class="site-main">
```

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```html
<!--=============== Hero banner start =================-->
<section class="hero-banner">
  <div class="container">
    <div class="row no-gutters align-items-center pt-60px">
      <div class="col-5 d-none d-sm-block">
        <div class="hero-banner__img">
          <img class="img-fluid" src="static/img/home/hero-banner.png" alt="">
        </div>
      </div>
      <div class="col-sm-7 col-lg-6 offset-lg-1 pl-4 pl-md-5 pl-lg-0">
        <div class="hero-banner__content">
          <h4>Shop is fun</h4>
          <h1>Browse Our Premium Product</h1>
          <p>Us which over of signs divide dominion deep fill bring they're meat beho upon own earth without morning over third. Their male dry. They are great appear whose land fly grass.</p>
          <a class="button button-hero" href="#">Browse Now</a>
        </div>
      </div>
    </div>
  </div>
</section>
<!--=============== Hero banner start =================-->


<!--=============== Hero Carousel start =================-->
<section class="section-margin mt-0">
  <div class="owl-carousel owl-theme hero-carousel">
    <div class="hero-carousel__slide">
      <img src="img/home/hero-slide1.png" alt="" class="img-fluid">
```

```html
      <a href="#" class="hero-carousel__slideOverlay">
        <h3>Wireless Headphone</h3>
        <p>Accessories Item</p>
      </a>
    </div>
    <div class="hero-carousel__slide">
      <img src="static/img/home/hero-slide2.png" alt="" class="img-fluid">
      <a href="#" class="hero-carousel__slideOverlay">
        <h3>Wireless Headphone</h3>
        <p>Accessories Item</p>
      </a>
    </div>
    <div class="hero-carousel__slide">
      <img src="static/img/home/hero-slide3.png" alt="" class="img-fluid">
      <a href="#" class="hero-carousel__slideOverlay">
        <h3>Wireless Headphone</h3>
        <p>Accessories Item</p>
      </a>
    </div>
  </div>
</section>
<!--=============== Hero Carousel end ================-->


<!-- =============== trending product section start ================ -->
<section class="section-margin calc-60px">
  <div class="container">
    <div class="section-intro pb-60px">
      <p>Popular Item in the market</p>
      <h2>Trending <span class="section-intro__style">Product</span></h2>
```

```html
      </div>
    <div class="row">
     <div class="col-md-6 col-lg-4 col-xl-3">
       <div class="card text-center card-product">
        <div class="card-product__img">
         <img class="card-img" src="static/img/product/product1.png" alt="">
         <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
         </ul>
        </div>
        <div class="card-body">
         <p>Accessories</p>
         <h4 class="card-product__title"><a href="single-product.html">Quartz Belt
Watch</a></h4>
          <p class="card-product__price">$150.00</p>
        </div>
       </div>
      </div>
      <div class="col-md-6 col-lg-4 col-xl-3">
       <div class="card text-center card-product">
        <div class="card-product__img">
         <img class="card-img" src="static/img/product/product2.png" alt="">
         <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
         </ul>
```

```html
        </div>
        <div class="card-body">
         <p>Beauty</p>
         <h4 class="card-product__title"><a href="single-product.html">Women
Freshwash</a></h4>
         <p class="card-product__price">$150.00</p>
        </div>
       </div>
      </div>
      <div class="col-md-6 col-lg-4 col-xl-3">
       <div class="card text-center card-product">
        <div class="card-product__img">
         <img class="card-img" src="static/img/product/product3.png" alt="">
         <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
         </ul>
        </div>
        <div class="card-body">
         <p>Decor</p>
         <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
         <p class="card-product__price">$150.00</p>
        </div>
       </div>
      </div>
      <div class="col-md-6 col-lg-4 col-xl-3">
       <div class="card text-center card-product">
```

```html
      <div class="card-product__img">
        <img class="card-img" src="static/img/product/product4.png" alt="">
        <ul class="card-product__imgOverlay">
         <li><button><i class="ti-search"></i></button></li>
         <li><button><i class="ti-shopping-cart"></i></button></li>
         <li><button><i class="ti-heart"></i></button></li>
        </ul>
       </div>
       <div class="card-body">
        <p>Decor</p>
        <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
        <p class="card-product__price">$150.00</p>
       </div>
      </div>
     </div>
     <div class="col-md-6 col-lg-4 col-xl-3">
      <div class="card text-center card-product">
       <div class="card-product__img">
        <img class="card-img" src="static/img/product/product5.png" alt="">
        <ul class="card-product__imgOverlay">
         <li><button><i class="ti-search"></i></button></li>
         <li><button><i class="ti-shopping-cart"></i></button></li>
         <li><button><i class="ti-heart"></i></button></li>
        </ul>
       </div>
       <div class="card-body">
        <p>Accessories</p>
        <h4 class="card-product__title"><a href="single-product.html">Man Office
```

```
Bag</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>
  </div>
  <div class="col-md-6 col-lg-4 col-xl-3">
    <div class="card text-center card-product">
      <div class="card-product__img">
        <img class="card-img" src="static/img/product/product6.png" alt="">
        <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
        </ul>
      </div>
      <div class="card-body">
        <p>Kids Toy</p>
        <h4 class="card-product__title"><a href="single-product.html">Charging Car</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>
  </div>
  <div class="col-md-6 col-lg-4 col-xl-3">
    <div class="card text-center card-product">
      <div class="card-product__img">
        <img class="card-img" src="static/img/product/product7.png" alt="">
        <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
```

```
          <li><button><i class="ti-heart"></i></button></li>
        </ul>
      </div>
      <div class="card-body">
        <p>Accessories</p>
        <h4 class="card-product__title"><a href="single-product.html">Blutooth
Speaker</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>
  </div>
  <div class="col-md-6 col-lg-4 col-xl-3">
    <div class="card text-center card-product">
      <div class="card-product__img">
        <img class="card-img" src="static/img/product/product8.png" alt="">
        <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
        </ul>
      </div>
      <div class="card-body">
        <p>Kids Toy</p>
        <h4 class="card-product__title"><a href="#">Charging Car</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>
  </div>
</div>
```

```html
    </div>
  </section>
  <!-- =============== trending product section end ================ -->



  <!-- =============== offer section start ================ -->
  <section class="offer" id="parallax-1" data-anchor-target="#parallax-1" data-300-
top="background-position: 20px 30px" data-top-bottom="background-position: 0 20px">
    <div class="container">
      <div class="row">
        <div class="col-xl-5">
          <div class="offer__content text-center">
            <h3>Up To 50% Off</h3>
            <h4>Winter Sale</h4>
            <p>Him she'd let them sixth saw light</p>
            <a class="button button--active mt-3 mt-xl-4" href="#">Shop Now</a>
          </div>
        </div>
      </div>
    </div>
  </section>
  <!-- =============== offer section end ================ -->


  <!-- =============== Best Selling item  carousel ================ -->
  <section class="section-margin calc-60px">
    <div class="container">
      <div class="section-intro pb-60px">
        <p>Popular Item in the market</p>
        <h2>Best <span class="section-intro__style">Sellers</span></h2>
```

```
    </div>
    <div class="owl-carousel owl-theme" id="bestSellerCarousel">
     <div class="card text-center card-product">
      <div class="card-product__img">
       <img class="img-fluid" src="static/img/product/product1.png" alt="">
       <ul class="card-product__imgOverlay">
        <li><button><i class="ti-search"></i></button></li>
        <li><button><i class="ti-shopping-cart"></i></button></li>
        <li><button><i class="ti-heart"></i></button></li>
       </ul>
      </div>
      <div class="card-body">
       <p>Accessories</p>
       <h4 class="card-product__title"><a href="single-product.html">Quartz Belt
Watch</a></h4>
       <p class="card-product__price">$150.00</p>
      </div>
     </div>

     <div class="card text-center card-product">
      <div class="card-product__img">
       <img class="img-fluid" src="static/img/product/product2.png" alt="">
       <ul class="card-product__imgOverlay">
        <li><button><i class="ti-search"></i></button></li>
        <li><button><i class="ti-shopping-cart"></i></button></li>
        <li><button><i class="ti-heart"></i></button></li>
       </ul>
      </div>
      <div class="card-body">
```

```
    <p>Beauty</p>
    <h4 class="card-product__title"><a href="single-product.html">Women
Freshwash</a></h4>
    <p class="card-product__price">$150.00</p>
   </div>
  </div>


  <div class="card text-center card-product">
   <div class="card-product__img">
    <img class="img-fluid" src="static/img/product/product3.png" alt="">
    <ul class="card-product__imgOverlay">
     <li><button><i class="ti-search"></i></button></li>
     <li><button><i class="ti-shopping-cart"></i></button></li>
     <li><button><i class="ti-heart"></i></button></li>
    </ul>
   </div>
   <div class="card-body">
    <p>Decor</p>
    <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
    <p class="card-product__price">$150.00</p>
   </div>
  </div>


  <div class="card text-center card-product">
   <div class="card-product__img">
    <img class="img-fluid" src="static/img/product/product4.png" alt="">
    <ul class="card-product__imgOverlay">
     <li><button><i class="ti-search"></i></button></li>
```

```html
        <li><button><i class="ti-shopping-cart"></i></button></li>
        <li><button><i class="ti-heart"></i></button></li>
      </ul>
    </div>
    <div class="card-body">
      <p>Decor</p>
      <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
      <p class="card-product__price">$150.00</p>
    </div>
  </div>


  <div class="card text-center card-product">
    <div class="card-product__img">
      <img class="img-fluid" src="static/img/product/product1.png" alt="">
      <ul class="card-product__imgOverlay">
        <li><button><i class="ti-search"></i></button></li>
        <li><button><i class="ti-shopping-cart"></i></button></li>
        <li><button><i class="ti-heart"></i></button></li>
      </ul>
    </div>
    <div class="card-body">
      <p>Accessories</p>
      <h4 class="card-product__title"><a href="single-product.html">Quartz Belt
Watch</a></h4>
      <p class="card-product__price">$150.00</p>
    </div>
  </div>
```

```html
    <div class="card text-center card-product">
     <div class="card-product__img">
      <img class="img-fluid" src="static/img/product/product2.png" alt="">
      <ul class="card-product__imgOverlay">
       <li><button><i class="ti-search"></i></button></li>
       <li><button><i class="ti-shopping-cart"></i></button></li>
       <li><button><i class="ti-heart"></i></button></li>
      </ul>
     </div>
     <div class="card-body">
      <p>Beauty</p>
      <h4 class="card-product__title"><a href="single-product.html">Women
Freshwash</a></h4>
      <p class="card-product__price">$150.00</p>
     </div>
    </div>


    <div class="card text-center card-product">
     <div class="card-product__img">
      <img class="img-fluid" src="static/img/product/product3.png" alt="">
      <ul class="card-product__imgOverlay">
       <li><button><i class="ti-search"></i></button></li>
       <li><button><i class="ti-shopping-cart"></i></button></li>
       <li><button><i class="ti-heart"></i></button></li>
      </ul>
     </div>
     <div class="card-body">
      <p>Decor</p>
      <h4 class="card-product__title"><a href="single-product.html">Room Flash
```

```
Light</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>


    <div class="card text-center card-product">
      <div class="card-product__img">
        <img class="img-fluid" src="static/img/product/product4.png" alt="">
        <ul class="card-product__imgOverlay">
          <li><button><i class="ti-search"></i></button></li>
          <li><button><i class="ti-shopping-cart"></i></button></li>
          <li><button><i class="ti-heart"></i></button></li>
        </ul>
      </div>
      <div class="card-body">
        <p>Decor</p>
        <h4 class="card-product__title"><a href="single-product.html">Room Flash
Light</a></h4>
        <p class="card-product__price">$150.00</p>
      </div>
    </div>
   </div>
  </div>
 </section>
 <!-- =============== Best Selling item  carousel end ================ -->


 <!-- =============== Blog section start ================ -->
 <section class="blog">
  <div class="container">
```

```html
<div class="section-intro pb-60px">
 <p>Popular Item in the market</p>
 <h2>Latest <span class="section-intro__style">News</span></h2>
</div>


<div class="row">
 <div class="col-md-6 col-lg-4 mb-4 mb-lg-0">
  <div class="card card-blog">
   <div class="card-blog__img">
    <img class="card-img rounded-0" src="static/img/blog/blog1.png" alt="">
   </div>
   <div class="card-body">
    <ul class="card-blog__info">
     <li><a href="#">By Admin</a></li>
     <li><a href="#"><i class="ti-comments-smiley"></i> 2 Comments</a></li>
    </ul>
    <h4 class="card-blog__title"><a href="single-blog.html">The Richland Center
Shooping News and weekly shooper</a></h4>
      <p>Let one fifth i bring fly to divided face for bearing divide unto seed. Winged divided
light Forth.</p>
      <a class="card-blog__link" href="#">Read More <i class="ti-arrow-right"></i></a>
   </div>
  </div>
 </div>


 <div class="col-md-6 col-lg-4 mb-4 mb-lg-0">
  <div class="card card-blog">
   <div class="card-blog__img">
    <img class="card-img rounded-0" src="static/img/blog/blog2.png" alt="">
```

```html
        </div>
        <div class="card-body">
         <ul class="card-blog__info">
          <li><a href="#">By Admin</a></li>
          <li><a href="#"><i class="ti-comments-smiley"></i> 2 Comments</a></li>
         </ul>
         <h4 class="card-blog__title"><a href="single-blog.html">The Shopping News also
offers top-quality printing services</a></h4>
         <p>Let one fifth i bring fly to divided face for bearing divide unto seed. Winged divided
light Forth.</p>
         <a class="card-blog__link" href="#">Read More <i class="ti-arrow-right"></i></a>
        </div>
       </div>
      </div>

      <div class="col-md-6 col-lg-4 mb-4 mb-lg-0">
       <div class="card card-blog">
        <div class="card-blog__img">
         <img class="card-img rounded-0" src="static/img/blog/blog3.png" alt="">
        </div>
        <div class="card-body">
         <ul class="card-blog__info">
          <li><a href="#">By Admin</a></li>
          <li><a href="#"><i class="ti-comments-smiley"></i> 2 Comments</a></li>
         </ul>
         <h4 class="card-blog__title"><a href="single-blog.html">Professional design staff and
efficient equipment you'll find we offer</a></h4>
         <p>Let one fifth i bring fly to divided face for bearing divide unto seed. Winged divided
light Forth.</p>
```

```html
        <a class="card-blog__link" href="#">Read More <i class="ti-arrow-right"></i></a>
      </div>
    </div>
  </div>
 </div>
 </section>
 <!-- =============== Blog section end ================ -->


 <!-- =============== Subscribe section start ================ -->
 <section class="subscribe-position">
  <div class="container">
   <div class="subscribe text-center">
    <h3 class="subscribe__title">Get Update From Anywhere</h3>
    <p>Bearing Void gathering light light his eavening unto dont afraid</p>
    <div id="mc_embed_signup">
     <form target="_blank" action="https://spondonit.us12.list-
manage.com/subscribe/post?u=1462626880ade1ac87bd9c93a&amp;id=92a4423d01"
method="get" class="subscribe-form form-inline mt-5 pt-1">
      <div class="form-group ml-sm-auto">
       <input class="form-control mb-1" type="email" name="EMAIL" placeholder="Enter
your email" onfocus="this.placeholder = "" onblur="this.placeholder = 'Your Email Address '" >
       <div class="info"></div>
      </div>
      <button class="button button-subscribe mr-auto mb-1" type="submit">Subscribe
Now</button>
      <div style="position: absolute; left: -5000px;">
       <input name="b_36c4fd991d266f23781ded980_aefe40901a" tabindex="-1" value=""
type="text">
```

```
                </div>


            </form>
          </div>


        </div>
       </div>
      </section>
      <!-- =============== Subscribe section end ================ -->




</main>



<!--=============== Start footer Area  =================-->
        <footer class="footer">
                <div class="footer-area">
                        <div class="container">
                                <div class="row section_gap">
                                        <div class="col-lg-3 col-md-6 col-sm-6">
                                                <div class="single-footer-widget tp_widgets">
                                                        <h4 class="footer_title large_title">Our
Mission</h4>
                                                        <p>
                                                        So seed seed green that winged cattle
in. Gathering thing made fly you're no
                                                        divided deep moved us lan Gathering
thing us land years living.
```

```
                                    </p>
                                    <p>
                                            So seed seed green that winged cattle
in. Gathering thing made fly you're no divided deep moved
                                    </p>
                            </div>
                    </div>
                    <div class="offset-lg-1 col-lg-2 col-md-6 col-sm-6">
                            <div class="single-footer-widget tp_widgets">
                                    <h4 class="footer_title">Quick Links</h4>
                                    <ul class="list">
                                            <li><a href="#">Home</a></li>
                                            <li><a href="#">Shop</a></li>
                                            <li><a href="#">Blog</a></li>
                                            <li><a href="#">Product</a></li>
                                            <li><a href="#">Brand</a></li>
                                            <li><a href="#">Contact</a></li>
                                    </ul>
                            </div>
                    </div>
                    <div class="col-lg-2 col-md-6 col-sm-6">
                            <div class="single-footer-widget instafeed">
                                    <h4 class="footer_title">Gallery</h4>
                                    <ul class="list instafeed d-flex flex-wrap">
                                            <li><img
src="static/img/gallery/r1.jpg" alt=""></li>
                                            <li><img
src="static/img/gallery/r2.jpg" alt=""></li>
                                            <li><img
```

```
src="static/img/gallery/r3.jpg" alt=""></li>
                                                <li><img
src="static/img/gallery/r5.jpg" alt=""></li>
                                                <li><img
src="static/img/gallery/r7.jpg" alt=""></li>
                                                <li><img
src="static/mg/gallery/r8.jpg" alt=""></li>
                                        </ul>
                                </div>
                        </div>
                        <div class="offset-lg-1 col-lg-3 col-md-6 col-sm-6">
                                <div class="single-footer-widget tp_widgets">
                                        <h4 class="footer_title">Contact Us</h4>
                                        <div class="ml-40">
                                                <p class="sm-head">
                                                        <span class="fa fa-location-
arrow"></span>
                                                        Head Office
                                                </p>
                                                <p>123, Main Street, Your City</p>

                                                <p class="sm-head">
                                                        <span class="fa fa-
phone"></span>
                                                        Phone Number
                                                </p>
                                                <p>
                                                        +123 456 7890 <br>
                                                        +123 456 7890
```

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```html
                                                                    </p>

                                                                    <p class="sm-head">
                                                                            <span class="fa fa-
envelope"></span>

                                                                            Email
                                                                    </p>
                                                                    <p>
                                                                            free@infoexample.com <br>
                                                                            www.infoexample.com
                                                                    </p>
                                                            </div>
                                                    </div>
                                            </div>
                                    </div>
                            </div>


                    <div class="footer-bottom">
                            <div class="container">
                                    <div class="row d-flex">
                                            <p class="col-lg-12 footer-text text-center">
                                                    <!-- Link back to Colorlib can't be removed. Template
is licensed under CC BY 3.0. -->
Copyright &copy;<script>document.write(new Date().getFullYear());</script> All rights reserved |
This template is made with <i class="fa fa-heart" aria-hidden="true"></i> by <a
href="https://colorlib.com" target="_blank">Colorlib</a>
<!-- Link back to Colorlib can't be removed. Template is licensed under CC BY 3.0. --></p>
                                    </div>
```

```
                    </div>

                </div>

         </footer>

         <!--================ End footer Area  ==================-->




 <script src="static/vendors/jquery/jquery-3.2.1.min.js"></script>

 <script src="static/vendors/bootstrap/bootstrap.bundle.min.js"></script>

 <script src="static/vendors/skrollr.min.js"></script>

 <script src="static/vendors/owl-carousel/owl.carousel.min.js"></script>

 <script src="static/vendors/nice-select/jquery.nice-select.min.js"></script>

 <script src="static/vendors/jquery.ajaxchimp.min.js"></script>

 <script src="static/vendors/mail-script.js"></script>

 <script src="static/js/main.js"></script>

</body>

</html>
```

GITHUB AND PROJECT DEMO LINK:

GITHUB LINK:

https://github.com/IBM-EPBL/IBM-Project-21566-1659784813

PROJECT DEMO LINK:

https://drive.google.com/file/d/13WhPC-

9kWGc1hSZUH_o6DdtWNHjRC6OS/view?usp=sharing