

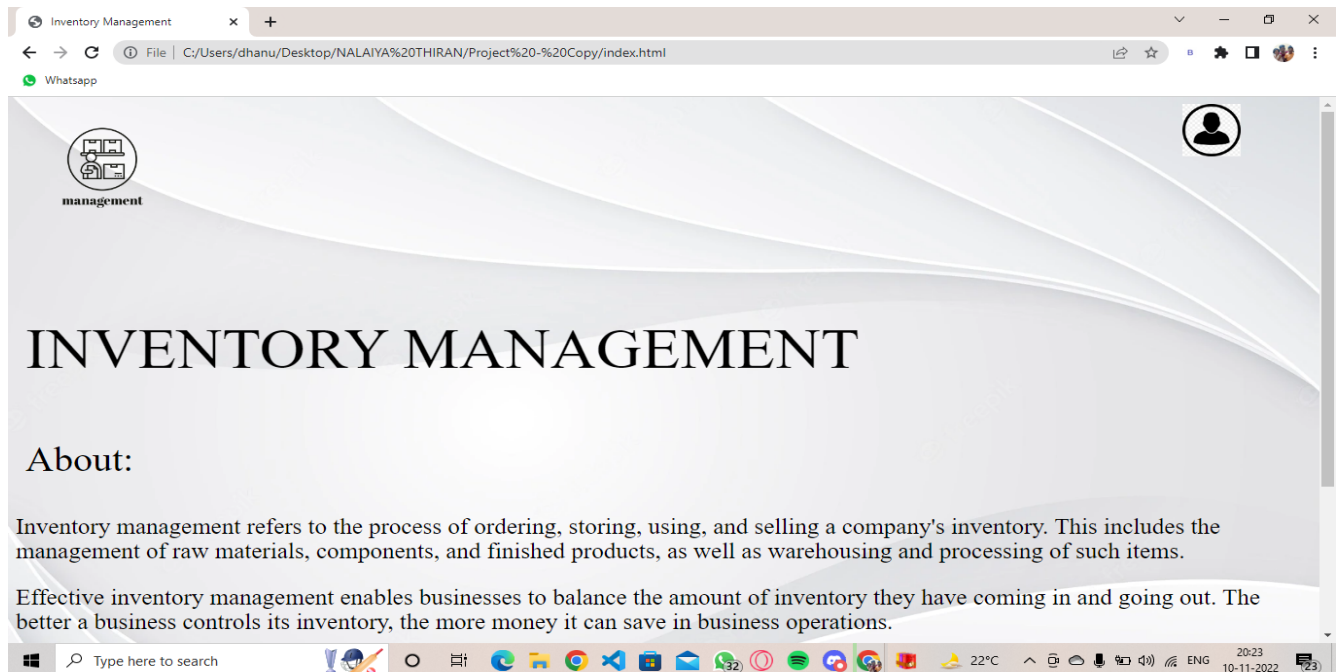
Implementing Web Application

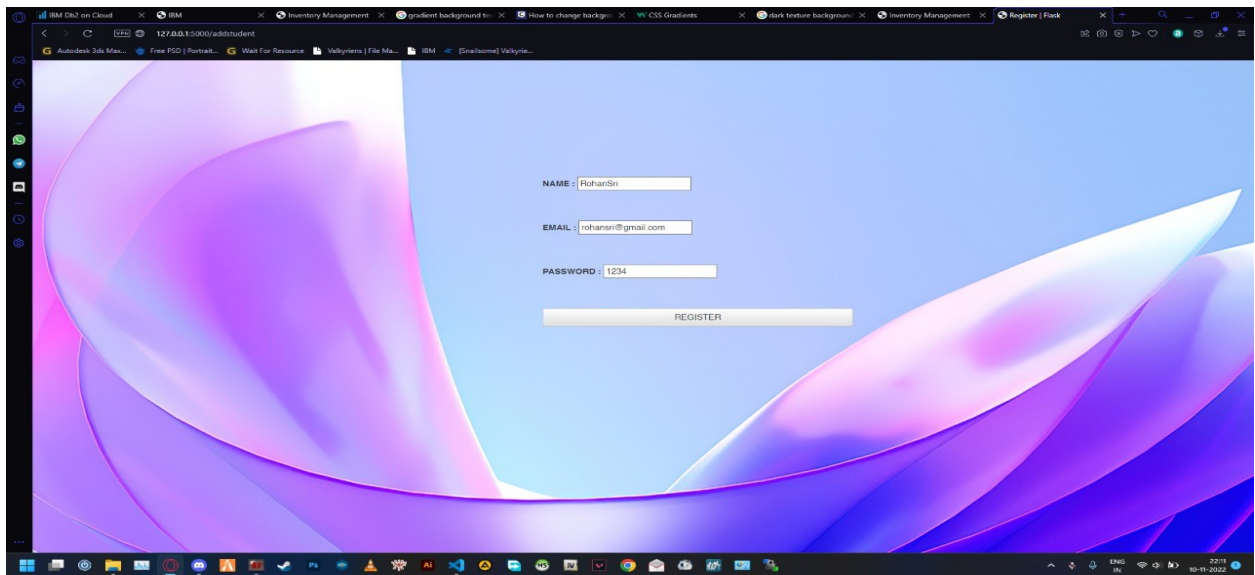
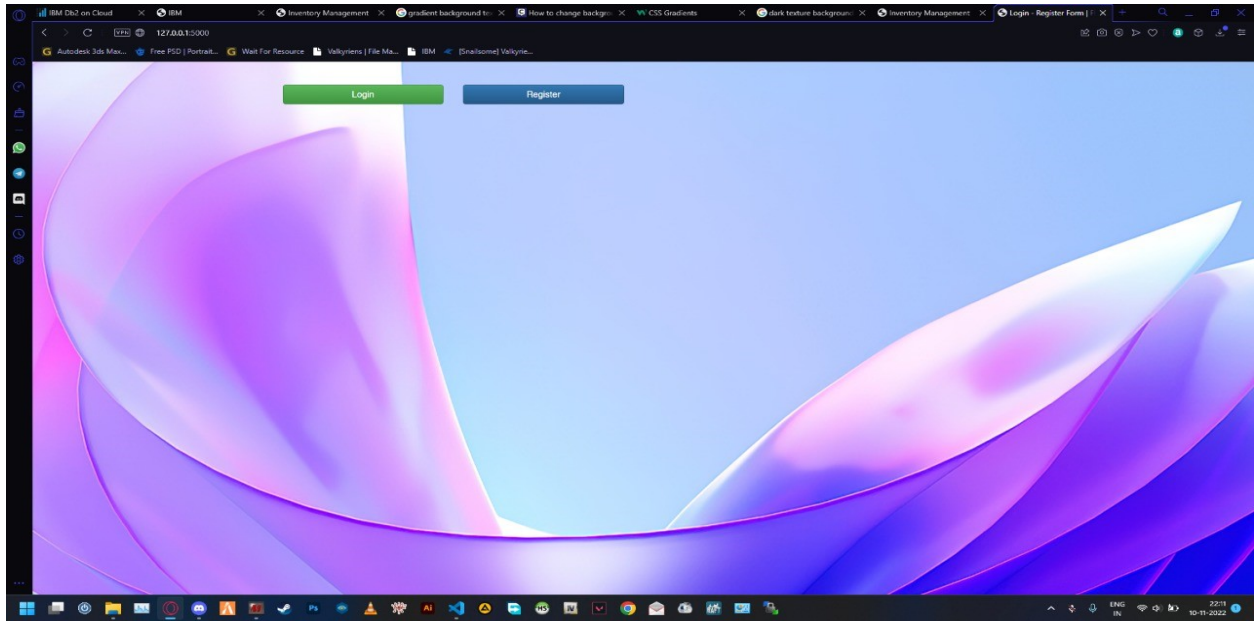
Create UI To Interact With Application

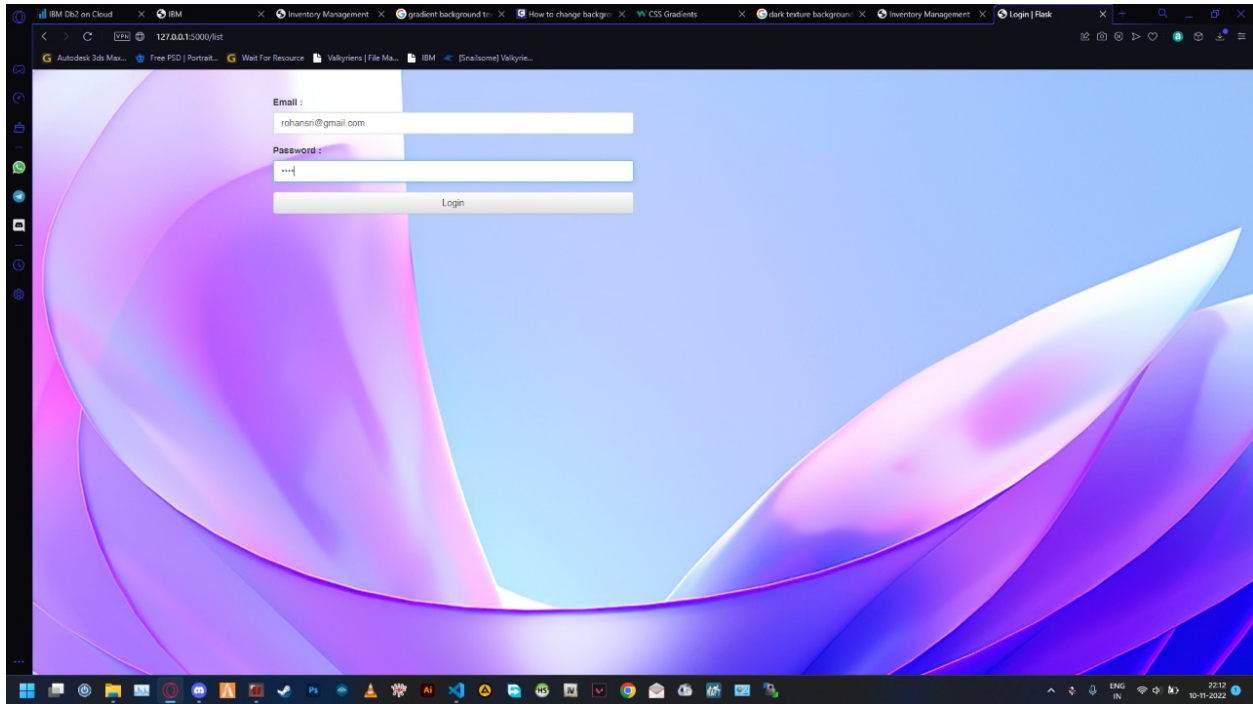
Team ID: PNT2022TMID27088

Project Name Project - Inventory Management System for Retailers

Home page and about page:







The screenshot shows a web browser window with the title 'Inventory Management'. The address bar shows the URL 'A/editing/table/homepage.html'. The page content displays a table of products for 'ECEMART'.

Item	Description	Price	Stock	Cart
ZEB Mouse	ZEB-TRANSFORMER RGB GAMING MOUSE	10\$	10	0
ZEB-Keyboard	ZEB-TRANSFORMER RGB KEYBOARD	15\$	10	0
REDGEAR Joystick	WIRELESS GAMING STICK	10\$	10	0
Samsung Hard Disk	1TB WIRELESS EXTERNAL HDD	20\$	5	0
SANDISK CRUEZRLADE	64GB PENDRIVE 100Mbps write speed	5\$	10	0
REDGEAR Headphone	REDGEAR 7.1 SURROUND RGB WIRED HEADPHONE	25\$	5	0
Volttron UPS	1.5KVA UPS WITH 30 mins backup	30\$	5	0
AIWA Microphone	crystal clear desktop microphone	15\$	5	0
LG MONITOR	165HZ OLED 22" CURVED MONITOR	50\$	5	0
LENOVO PC	i3-5TH GEN Desktop	100\$	5	0

The Windows taskbar is visible at the bottom of the screen.

code:

The screenshot shows a Visual Studio Code editor with a Flask application named 'app.py'. The code is as follows:

```

1 from flask import Flask, render_template, request, redirect, url_for, session
2 from flask import Flask, render_template, request, redirect, url_for, session
3 from flask import Flask, render_template, request, redirect, url_for, session
4 from flask import Flask, render_template, request, redirect, url_for, session
5 import os
6 from sendgrid import SendGridAPIClient
7 from sendgrid.helpers.mail import Mail
8 import json
9 conn = ibm_db.connect('DATABASE=bludb;HOSTNAME=55fbc997-9266-4331-afdc-888b85e734c8.bs2i09108kbi0d81cg.databases.appdomain.cloud;PORT=31929;SECURITY=SSL;SSLServerCertificate=DigiCertGlobalRootCA.crt;')
10 print ('Database connection established', conn)
11
12 app = Flask(__name__)
13
14
15
16 @app.route('/')
17 def home():
18     return render_template('home.html')
19 @app.route('/2')
20 def home2():
21     return render_template('home2.html')
22
23 @app.route('/addstudent')
24 def new_student():
25     return render_template('add_student.html')
26 @app.route('/list')
27 def list():
28     return render_template('list.html')
29
30 @app.route('/addrec', methods = ['POST', 'GET'])
31 def addrec():
32     if request.method == 'POST':
33
34         name = request.form['name']
35         email = request.form['email']
36         password = request.form['password']
37
38
39 sql = "SELECT * FROM userdata WHERE name = ?"

```

The terminal shows the command 'python app.py' and the output 'Flask app running on http://127.0.0.1:5000/'.

The screenshot displays the Visual Studio Code interface with a Flask application project named 'app.py'. The Explorer pane on the left shows the project structure, including a 'templates' directory and a 'static' directory. The main editor area shows the 'app.py' file, which contains the following code:

```
38 sql = "SELECT * FROM userdata WHERE name=? "
39 stat = ihm_db.prepare(conn, sql)
40 ihm_db.bind_param(stat,1,name)
41 ihm_db.execute(stat)
42 account = ihm_db.fetch_assoc(stat)
43
44 if account:
45     return render_template("list.html", msg="You are already a user, please login using your details")
46 else:
47     insert_sql = "INSERT INTO userdata VALUES (?,?,?)"
48     prep_stat = ihm_db.prepare(conn, insert_sql)
49     ihm_db.bind_param(prep_stat, 1, name)
50     ihm_db.bind_param(prep_stat, 2, email)
51     ihm_db.bind_param(prep_stat, 3, password)
52     ihm_db.execute(prep_stat)
53
54 return render_template("home2.html", )
55
56
57
58
59
60
61 @app.route('/check',methods = ['POST','GET'])
62 def check():
63
64     if request.method == 'POST':
65
66         email = request.form['email']
67         password = request.form['password']
68
69         sql = "SELECT * FROM userdata WHERE email=? and password=?"
70         stat = ihm_db.prepare(conn, sql)
71         ihm_db.bind_param(stat,1,email)
72         ihm_db.bind_param(stat,2,password)
73
74         ihm_db.execute(stat)
75         account = ihm_db.fetch_assoc(stat)
76         if account:
```

The bottom of the editor shows the 'TERMINAL' pane with the following output:

```
PS A:\project\temp\flask-with-ihm-db2-main>
```

The status bar at the bottom indicates the file is 'Ln 100, Col 1', 'Spaces: 2', 'UTF-8', 'CRLF', and 'Python 3.10.8 64-bit (microsoft store)'.


```
app.py
1 # -*- coding: utf-8 -*-
2 from flask import Flask, request, redirect, url_for, session
3 from flask_sqlalchemy import SQLAlchemy
4 from flask_login import LoginManager, login_user, login_required, logout_user, UserMixin
5 from flask_wtf import FlaskForm
6 from wtforms import StringField, PasswordField, SubmitField
7 from wtforms.validators import DataRequired, Length, Email, EqualTo
8
9 app = Flask(__name__)
10 app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///data.db'
11 db = SQLAlchemy(app)
12 login_manager = LoginManager(app)
13
14 class User(UserMixin):
15     def __init__(self, email, password):
16         self.email = email
17         self.password = password
18
19 class LoginForm(FlaskForm):
20     email = StringField('Email')
21     password = PasswordField('Password')
22     submit = SubmitField('Login')
23
24 class RegisterForm(FlaskForm):
25     email = StringField('Email')
26     password = PasswordField('Password')
27     confirm_password = PasswordField('Confirm Password')
28     submit = SubmitField('Register')
29
30 @app.route('/')
31 def index():
32     return render_template('index.html')
33
34 @app.route('/login', methods=['POST'])
35 def login():
36     form = LoginForm(request.form)
37     if form.validate():
38         email = form.email.data
39         password = form.password.data
40         user = User(email, password)
41         login_user(user)
42         return redirect(url_for('index'))
43     return render_template('login.html', error=form.errors)
44
45 @app.route('/register', methods=['POST'])
46 def register():
47     form = RegisterForm(request.form)
48     if form.validate():
49         email = form.email.data
50         password = form.password.data
51         confirm_password = form.confirm_password.data
52         if password != confirm_password:
53             return render_template('register.html', error='Passwords do not match')
54         user = User(email, password)
55         db.session.add(user)
56         db.session.commit()
57         return redirect(url_for('index'))
58     return render_template('register.html', error=form.errors)
59
60 @app.route('/logout')
61 @login_required
62 def logout():
63     logout_user()
64     return redirect(url_for('index'))
65
66 if __name__ == '__main__':
67     app.run(debug=True)
```

```
app.py
1 # -*- coding: utf-8 -*-
2 from flask import Flask, request, redirect, url_for, session
3 from flask_sqlalchemy import SQLAlchemy
4 from flask_login import LoginManager, login_user, login_required, logout_user, UserMixin
5 from flask_wtf import FlaskForm
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7 from wtforms.validators import DataRequired, Length, Email, EqualTo
8
9 app = Flask(__name__)
10 app.config['SQLALCHEMY_DATABASE_URI'] = 'sqlite:///data.db'
11 db = SQLAlchemy(app)
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14 class User(UserMixin):
15     def __init__(self, email, password):
16         self.email = email
17         self.password = password
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19 class LoginForm(FlaskForm):
20     email = StringField('Email')
21     password = PasswordField('Password')
22     submit = SubmitField('Login')
23
24 class RegisterForm(FlaskForm):
25     email = StringField('Email')
26     password = PasswordField('Password')
27     confirm_password = PasswordField('Confirm Password')
28     submit = SubmitField('Register')
29
30 @app.route('/')
31 def index():
32     return render_template('index.html')
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35 def login():
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41         login_user(user)
42         return redirect(url_for('index'))
43     return render_template('login.html', error=form.errors)
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45 @app.route('/register', methods=['POST'])
46 def register():
47     form = RegisterForm(request.form)
48     if form.validate():
49         email = form.email.data
50         password = form.password.data
51         confirm_password = form.confirm_password.data
52         if password != confirm_password:
53             return render_template('register.html', error='Passwords do not match')
54         user = User(email, password)
55         db.session.add(user)
56         db.session.commit()
57         return redirect(url_for('index'))
58     return render_template('register.html', error=form.errors)
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60 @app.route('/logout')
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62 def logout():
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66 if __name__ == '__main__':
67     app.run(debug=True)
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