**INVENTORY MANAGEMENT SYSTEM FOR RETAILERS**

**Domain:** Cloud Application Development

**Team id: PNT2022TMID48008**

|  |  |  |  |
| --- | --- | --- | --- |
| **Team Members:** | **M.Janani** | - | 912319104015 |
|  | **M.Bavadharani** | - | 912319104003 |
|  | **J.Devi priya** | - | 912319104006 |
|  | **S.Pavithra** | - | 912319104026 |

CREATE FLASK PROJECT

# PHYTHON

* **APPLICATION.PY**

***From flask import Flask, render\_template, jsonify, request,redirect,flash, Markup,url\_for, session***

From models import \* From datetime import date

Folder\_name=”static” App = Flask( name )

App.config\*“SQLALCHEMY\_DATABASE\_URI”+ =

“postgresql://postgres:password@localhost:5432/inventoryDB” App.config\*“SQLALCHEMY\_TRACK\_MODIFICATIONS”+ = False App.secret\_key = b’hkahs3720/’

Db.init\_app(app)

@app.route(“/”) Def index():

Return render\_template(“index.html”)

@app.route(“/logout”) Def logout():

Return render\_template(“index.html”)

@app.route(“/dashboard”, methods=\*“POST”+) Def dashboard():

Unam = request.form.get(“username”) Pwd = request.form.get(“password”)

Ulist=user\_tbl.query.filter\_by(userName=unam).first() Session\*‘username’+= unam

Session\*‘userid’+= ulist.userID Session\*‘utype’+= ulist.userType If ulist.pwd==pwd:

# uid=ulist.userid

Return render\_template(“dashboard.html”) Else:

Return render\_template(“index.html”)

@app.route(“/saveItemCategory”, methods=\*“POST”+) Def saveItemCategory():

Idesc = request.form.get(“ItemCategoryDesc”) ItemCategor = ItemCategory(ItemCatDesc=idesc) Db.session.add(ItemCategor) Db.session.commit()

Text=idesc+’record Saved Successfully’

Return render\_template(“dashboard.html”, text=text)

@app.route(“/ItemsCategory”) Def ItemsCategory():

catList=ItemCategory.query.all() tabl=’’’<div class=”form-group”>

<table class=”table table-bordered border-success” ><TH>

<TD>Item Category ID</TD>

<TD>Item Category Name</TD></TH>’’’ For itm in catList:

Tabl=tabl+”<TR

><td></td><TD>”+str(itm.ItemCatID)+”</TD><TD>”+itm.ItemCatDesc+”</TD></TR>” Tabl=tabl+”</TABLE></div>”

Strg=’’’<form action=”/saveItemCategory” method=”post”>

<div class=”text-center”><h5>Add Item Category</h5></div><hr>

<div class=”mb-3”>

<label for=”ItemCategoryDesc” class=”form-label”>Item Category Description</label>

<input type=”text” class=”form-control” name=”ItemCategoryDesc” placeholder=”Enter Item Category Name”>

</div>

<div class=”col-12”>

<button type=”submit” class=”btn btn-success mb-3”>Save Item Category</button>

</div>

</FORM>

<BR>

‘’’+tabl

Text= Markup(strg)

Return render\_template(“dashboard.html”, text=text)

@app.route(“/saveItem”, methods=\*“POST”+) Def saveItem():

icatID = int(request.form.get(“ItemCatID”)) itmNam = request.form.get(“ItemName”) AvAmt = int(request.form.get(“AvailAmt”))

ItemMas = ItemMaster(ItemCatID=icatID, ItemDesc=itmNam,AvailAmt=AvAmt ) Db.session.add(ItemMas)

Db.session.commit()

Text=itmNam+’ record Saved Successfully’

Return render\_template(“dashboard.html”, text=text)

@app.route(“/Items”) Def Items():

itmList= ItemMaster.query.all() tabl=’’’<div class=”form-group”>

<table class=”table table-bordered border-success” ><TH>

<TD>Item ID</TD>

<TD>Item Category</TD>

<TD>Item Name</TD></TH>’’’ For itm in itmList:

Tabl=tabl+”<TR

><td></td><TD>”+str(itm.ItemID)+”</TD><TD>”+itm.ItemDesc+”</TD><TD>”+itm.itemCat.Ite mCatDesc+”</TD></TR>”

Tabl=tabl+”</TABLE></div>” catList= ItemCategory.query.all() dd=’’’<div class=”form-group”>

<select class=”form-control” name=”ItemCatID”>’’’ For cat in catList:

Dd=dd+”<option value=\””+str(cat.ItemCatID)+”\”>”+cat.ItemCatDesc +”</option>” Dd=dd+ ‘’’</select>

</div>’’’

Strg=’’’<form action=”/saveItem” method=”post”>

<div class=”text-center”><h5>Add Items</h5></div><hr>

<div class=”mb-3”>

<label for=”ItemCatID” class=”form-label”>Item Category </label>’’’+dd+’’’

</div>

<div class=”mb-3”>

<label for=”ItemName” class=”form-label”>Item Description</label>

<input type=”text” class=”form-control” name=”ItemName” placeholder=”Enter Item Name”>

</div>

<div class=”mb-3”>

<label for=”AvailAmt” class=”form-label”>Available Amount</label>

<input type=”text” class=”form-control” name=”AvailAmt” placeholder=”How many Items available?”>

</div>

<div class=”col-12”>

<button type=”submit” class=”btn btn-success mb-3”>Save Item</button>

</div>

</FORM>

<BR>

‘’’+tabl

Text=Markup(strg)

Return render\_template(“dashboard.html”, text=text)

@app.route(“/UpdateItems”, methods=\*“POST”+) Def UpdateItems():

iID = int(request.form.get(“ItemID”)) aDate = request.form.get(“AddDate”) aQty = int(request.form.get(“AddQty”))

vName = request.form.get(“VendorName”)

aItems = AddItem(AddDate=aDate, AddQty=aQty,VendorName=vName, ItemID=iID) upVal = ItemMaster.query.filter\_by(ItemID=iID).first()

newUnits= upVal.AvailAmt upVal.AvailAmt = newUnits+aQty db.session.add(aItems) db.session.commit()

text=str(aQty)+’ ‘+upVal.ItemDesc+’ Added Successfully’ return render\_template(“dashboard.html”, text=text)

@app.route(“/AddItems”) Def AddItems():

itmList= ItemMaster.query.all() tabl=’’’<div class=”form-group”>

<table class=”table table-bordered border-success” ><TH>

<TD>Item ID</TD>

<TD>Item Category</TD>

<TD>Item Name</TD>

<TD>Items Available</TD></TH>’’’ For itm in itmList:

Tabl=tabl+”<TR

><td></td><TD>”+str(itm.ItemID)+”</TD><TD>”+itm.ItemDesc+”</TD><TD>”+itm.itemCat.Ite mCatDesc+”</TD><TD>”+str(itm.AvailAmt)+”</TD></TR>”

Tabl=tabl+”</TABLE></div>” Dd=’’’<div class=”form-group”>

<select class=”form-control” name=”ItemID”>’’’ For itm in itmList:

Dd=dd+”<option value=\””+str(itm.ItemID)+”\”>”+itm.ItemDesc +”</option>” Dd=dd+ ‘’’</select>

</div>’’’

Strg=’’’<form action=”/UpdateItems” method=”post”>

<div class=”text-center”><h5>Items Available</h5></div><hr>

<div class=”mb-3”>

<label for=”ItemID” class=”form-label”>Select Item </label>’’’+dd+’’’

</div>

<div class=”mb-3”>

<label for=”AddDate” class=”form-label”>Select Date</label>

<input type=”date” class=”form-control” Name=”AddDate” placeholder=”Enter Date of Adding Items in Inventory”>

</div>

<div class=”mb-3”>

<label for=”AddQty” class=”form-label”>Items Count</label>

<input type=”text” class=”form-control” name=”AddQty” placeholder=”Items Count”>

</div>

<div class=”mb-3”>

<label for=”VendorName” class=”form-label”>Vendor Name</label>

<input type=”text” class=”form-control” name=”VendorName” placeholder=”Vendor Name”>

</div>

<div class=”col-12”>

<button type=”submit” class=”btn btn-success mb-3”>Save Item</button>

</div>

</FORM><BR>

‘’’+tabl

Text=Markup(strg)

Return render\_template(“dashboard.html”, text=text)

@app.route(“/issUpdt/<int:tid>”) Def issUpdt(tid):

Ilist=request\_tbl.query.filter\_by(reqID=tid).first() upVal=”I”

ilist.Status=upVal ilist.issueDate= date.today()

imlist=ItemMaster.query.filter\_by(ItemID=ilist.ItemID).first() currCnt=imlist.AvailAmt

imlist.AvailAmt=currCnt-ilist.ReqQty db.session.commit()

text=”Item Issued”

return render\_template(“dashboard.html”, text=text)

@app.route(“/itemIssue”) Def itemIssue():

itmList= request\_tbl.query.filter\_by(Status=None,) strg=’’’<Form><div class=”form-group”>

<table class=”table table-bordered border-success” ><TH>

<TD>Item Name</TD>

<TD>Date of Request</TD>

<TD>Quantity Requested</TD>

<TD>User Name</TD>

<TD>Issue</TD></TH>’’’

For itm in itmList:

Strg=strg+”<TR

><td></td><TD>”+str(itm.item.ItemDesc)+”</TD><TD>”+str(itm.ReqDate)+”</TD><TD>”+str(i tm.ReqQty)+”</TD>”

Strg=strg+”<TD>”+str(itm.user.userName)+”</TD><TD>” Strg=strg+”<div class=\”col-12\”><a href=”+

url\_for(‘issUpdt’,tid=itm.reqID)+”>Issue</a></div></TD></TR>” Strg=strg+”</TABLE></div></FORM>”

Text=Markup(strg)

Return render\_template(“dashboard.html”, text=text)

@app.route(“/retUpdt/<int:tid>”) Def retUpdt(tid):

Ilist=request\_tbl.query.filter\_by(reqID=tid).first() upVal=”R”

ilist.Status=upVal ilist.returnDate= date.today()

imlist=ItemMaster.query.filter\_by(ItemID=ilist.ItemID).first() currCnt=imlist.AvailAmt imlist.AvailAmt=currCnt+ilist.ReqQty

db.session.commit()

text=”Item Returned”

return render\_template(“dashboard.html”, text=text)

@app.route(“/itemReturn”) Def itemReturn():

itmList= request\_tbl.query.filter\_by(Status=”I”,userID=session\*‘userid’+) strg=’’’<Form><div class=”form-group”>

<table class=”table table-bordered border-success” ><TH>

<TD>Item Name</TD>

<TD>Date of Issue</TD>

<TD>Quantity Issued</TD>

<TD>Return</TD></TH>’’’ For itm in itmList:

Strg=strg+”<TR

><td></td><TD>”+str(itm.item.ItemDesc)+”</TD><TD>”+str(itm.issueDate)+”</TD><TD>”+str (itm.ReqQty)+”</TD>”

Strg=strg+”<TD><div class=\”col-12\”><a href=”+

url\_for(‘retUpdt’,tid=itm.reqID)+”>Return</a></div></TD></TR>” Strg=strg+”</TABLE></div></FORM>”

Text=Markup(strg)

Return render\_template(“dashboard.html”, text=text)

@app.route(“/saveRequest”, methods=\*“POST”+) Def saveRequest():

iID = int(request.form.get(“ItemID”)) rDate = request.form.get(“reqDate”)

rQty = request.form.get(“reqQuantity”) uid = session\*“userid”+

dept = request.form.get(“depttName”)

rItems = request\_tbl(ReqDeptt=dept, ReqDate=rDate,ItemID=iID, ReqQty=rQty, userID=uid) db.session.add(rItems)

db.session.commit()

text=str(iID)+’ ‘+str(rQty)+’ Requested Successfully’ return render\_template(“dashboard.html”, text=text)

@app.route(“/itemRequest”) Def itemRequest():

itmList= ItemMaster.query.all() dd=’’’<div class=”form-group”>

<select class=”form-control” name=”ItemID”>’’’ For itm in itmList:

Dd=dd+”<option value=\””+str(itm.ItemID)+”\”>”+itm.ItemDesc +”</option>” Dd=dd+ ‘’’</select>

</div>’’’

itmList= request\_tbl.query.filter\_by(userID=session\*‘userid’+)

tbl=’’’<DIV><table class=”table table-bordered border-success” ><TH>

<TD>Item Name</TD>

<TD>Date of Request</TD>

<TD>Date of Issue</TD>

<TD>Quantity Issued</TD></TH>’’’ For itm in itmList:

Tbl=tbl+”<TR

><td></td><TD>”+str(itm.item.ItemDesc)+”</TD><TD>”+str(itm.ReqDate)+”</TD><TD>”+str(i tm.issueDate)+”</TD>”

Tbl=tbl+”<TD>”+str(itm.ReqQty)+”</TD></TR>” Tbl=tbl+”</TABLE></div>”

Strg=’’’<form action=”/saveRequest” method=”post”>

<div class=”text-center”><h5>Request Item</h5></div><hr>

<div class=”mb-3”>

<label for=”ItemID” class=”form-label”>Select Item </label>’’’+dd+’’’

</div>

<div class=”mb-3”>

<label for=”reqDate” class=”form-label”>Request Date</label>

<input type=”date” class=”form-control” name=”reqDate” placeholder=”Select Request Date”>

</div>

<div class=”mb-3”>

<label for=”reqQty” class=”form-label”>Request Quantity</label>

<input type=”number” class=”form-control” name=”reqQuantity” placeholder=”Items Count”>

</div>

<div class=”mb-3”>

<label for=”depttName” class=”form-label”>Department</label>

<input type=”text” class=”form-control” name=”depttName” placeholder=”Department “>

</div>

<div class=”col-12”>

<button type=”submit” class=”btn btn-success mb-3”>Request Item</button>

</div>

</FORM><BR>

‘’’+tbl

Text=Markup(strg)

Return render\_template(“dashboard.html”, text=text)

# Models.py Import os

From flask import Flask

From flask\_sqlalchemy import SQLAlchemy Db = SQLAlchemy()

Class ItemCategory(db.Model):

tablename =”ItemsCategory”

ItemCatID = db.Column(db.Integer, primary\_key=True) ItemCatDesc =db.Column(db.String,nullable=False)

Class ItemMaster(db.Model):

tablename =”ItemMaster”

ItemID = db.Column(db.Integer, primary\_key=True)

ItemCatID = db.Column(db.Integer,db.ForeignKey(“ItemsCategory.ItemCatID”), nullable=False)

ItemDesc = db.Column(db.String,nullable=False) AvailAmt = db.Column(db.Integer,nullable=False)

itemCat = db.relationship(“ItemCategory”, backref=”itemCat”, lazy=True)

class AddItem(db.Model):

tablename =”AddItems”

transID=db.Column(db.Integer, primary\_key=True)

ItemID = db.Column(db.Integer,db.ForeignKey(“ItemMaster.ItemID”), nullable=False) AddQty = db.Column(db.Integer, nullable=False)

AddDate = db.Column(db.Date,nullable=False) VendorName = db.Column(db.String,nullable=False)

Class request\_tbl(db.Model):

tablename =”request\_tbl”

reqID=db.Column(db.Integer, primary\_key=True) ReqDeptt=db.Column(db.String,nullable=False) ReqDate =db.Column(db.Date,nullable=False)

ItemID = db.Column(db.Integer,db.ForeignKey(“ItemMaster.ItemID”), nullable=False) ReqQty = db.Column(db.Integer, nullable=False)

userID = db.Column(db.Integer,db.ForeignKey(“user\_tbl.userID”), nullable=False) Status=db.Column(db.String,nullable=False) issueDate=db.Column(db.Date,nullable=False) returnDate=db.Column(db.Date,nullable=False)

item = db.relationship(“ItemMaster”, backref=”item”, lazy=True) user = db.relationship(“user\_tbl”, backref=”user”, lazy=True)

class user\_tbl(db.Model):

tablename =”user\_tbl”

userID=db.Column(db.Integer, primary\_key=True) userName=db.Column(db.String,nullable=False) pwd=db.Column(db.String,nullable=False) userType=db.Column(db.String,nullable=False)

# index.html

<HTML>

<head>

<link href=[https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta2/dist/css/bootstrap.min.css](https://cdn.jsdelivr.net/npm/bootstrap%405.0.0-beta2/dist/css/bootstrap.min.css) rel=”stylesheet” integrity=”sha384-

BmbxuPwQa2lc/FVzBcNJ7UAyJxM6wuqIj61tLrc4wSX0szH/Ev+nYRRuWlolflfl” crossorigin=”anonymous”>

<script src=[https://cdn.jsdelivr.net/npm/@popperjs/core@2.6.0/dist/umd/popper.min.js](https://cdn.jsdelivr.net/npm/%40popperjs/core%402.6.0/dist/umd/popper.min.js) integrity=”sha384-

KsvD1yqQ1/1+IA7gi3P0tyJcT3vR+NdBTt13hSJ2lnve8agRGXTTyNaBYmCR/Nwi” crossorigin=”anonymous”></script>

<script src=[https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta2/dist/js/bootstrap.min.js](https://cdn.jsdelivr.net/npm/bootstrap%405.0.0-beta2/dist/js/bootstrap.min.js) integrity=”sha384-

nsg8ua9Haw1y0W1btsyWgBklPnCUAFLuTMS2G72MMONqmOymq585AcH49TLBQObG” crossorigin=”anonymous”></script>

</head>

<body>

<div class=”row” style=”height:50%; margin-top:5%; “>

<div class=”col-4” >

</div>

<div class=”col-4” style=”border-style:solid; border-color:grey; border-width:1px;box- shadow: 10px 10px 10px grey;padding-top:10px”>

<form action=”,, url\_for(‘dashboard’)--” method=”post”>

<div class=”form-group mx-sm-3 mb-2”>

<label for=”username” class=”sr-only”>User Name</label>

<input type=”text” class=”form-control” name=”username” placeholder=”User Name”>

</div>

<div class=”form-group mx-sm-3 mb-2”>

<label for=”inputPassword2” class=”sr-only”>Password</label>

<input type=”password” class=”form-control” name=”password” placeholder=”Password”>

</div>

<button type=”submit” class=”btn btn-primary mb-2”>Confirm identity</button>

</form>

</div>

<body>

# Dashboard.html

<HTML>

<head>

<link href=[https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta2/dist/css/bootstrap.min.css](https://cdn.jsdelivr.net/npm/bootstrap%405.0.0-beta2/dist/css/bootstrap.min.css) rel=”stylesheet” integrity=”sha384-

BmbxuPwQa2lc/FVzBcNJ7UAyJxM6wuqIj61tLrc4wSX0szH/Ev+nYRRuWlolflfl” crossorigin=”anonymous”>

<script src=[https://cdn.jsdelivr.net/npm/@popperjs/core@2.6.0/dist/umd/popper.min.js](https://cdn.jsdelivr.net/npm/%40popperjs/core%402.6.0/dist/umd/popper.min.js) integrity=”sha384-

KsvD1yqQ1/1+IA7gi3P0tyJcT3vR+NdBTt13hSJ2lnve8agRGXTTyNaBYmCR/Nwi” crossorigin=”anonymous”></script>

<script src=[https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta2/dist/js/bootstrap.min.js](https://cdn.jsdelivr.net/npm/bootstrap%405.0.0-beta2/dist/js/bootstrap.min.js) integrity=”sha384-

nsg8ua9Haw1y0W1btsyWgBklPnCUAFLuTMS2G72MMONqmOymq585AcH49TLBQObG” crossorigin=”anonymous”></script>

</head>

<body>

<div>

<div style=”height: 10px; background-color: rgba(0,0,0,0.8);”>

<div class=”col-12”>

</div>

</div>

<div style=”height: 2px; background-color: rgba(0,0,0,0.8);”>

<div class=”col-12”>

</div>

</div>

<div class=”container overflow-hidden”>

<div style=”height: 2px; background-color: rgba(255,255,255,0.8);”>

<div class=”col-12”>

</div>

</div>

<div style=”height: 50px; background-color: #ADFF2F; padding-left:30%;padding-top:10px”>

<h3>Inventory- Issues and Returns</h3>

</div>

<div style=”height: 2px; background-color: rgba(5,6,0,0.8);”></div>

</div>

<div class=”row” style=”height:100%”>

<div class=”col-2” style=”border-style:solid; border-color:grey; border-width:1px; text- align:left”>

<div class=”col-12”>

{% if session\*‘utype’+ ==’Admin’ %}

<div style=”width:100%;” >

<a href=”,,url\_for(‘ItemsCategory’)--” style=”background-color: #ADFF2F;; Color: black;border-bottom-style:solid;

Padding: 14px 25px; Text-align: center; Text-decoration: none;

Display: inline-block;width:100%”>Add Item Category</a>

</div>

<div style=”width:100%;”>

<a href=”,,url\_for(‘Items’)--” style=”background-color: #ADFF2F;; Color: black;border-bottom-style:solid;

Padding: 14px 25px; Text-align: center; Text-decoration: none;

Display: inline-block;width:100%” >Add an Item</a>

</div>

<div style=”width:100%;”>

<a href=”,,url\_for(‘AddItems’)--” style=”background-color: #ADFF2F;; Color: black;border-bottom-style:solid;

Padding: 14px 25px; Text-align: center; Text-decoration: none;

Display: inline-block; width:100%”>Add Items</a>

</div>

<div style=”width:100%;”>

<a href=”,,url\_for(‘itemIssue’)--” style=”background-color: #ADFF2F;; Color: black;border-bottom-style:solid;

Padding: 14px 25px; Text-align: center; Text-decoration: none;

Display: inline-block;width:100%”>Item Issue</a>

</div>

{% endif %}

{% if session\*‘utype’+ !=’Admin’ %}

<div style=”width:100%;”>

<a href=”,,url\_for(‘itemReturn’)--” style=”background-color: #ADFF2F; Color: black;border-bottom-style:solid;

Padding: 14px 25px; Text-align: center; Text-decoration: none;

Display: inline-block;width:100%”>Item Return</a>

</div>

<div style=”width:100%;”>

<a href=”,,url\_for(‘itemRequest’)--” style=”background-color: #ADFF2F;

Color: black;border-bottom-style:solid; Padding: 14px 25px;

Text-align: center;

Text-decoration: none;

Display: inline-block;width:100%”>Item Request</a>

</div>

{% endif %}

</div>

</div>

<div class=”col-8” style=”border-style:solid; border-color:grey;border-width:1px; padding- top:10px”>

{% block body %}

{{text}}

{% endblock %}

</div>

<div class=”col-2” style=”border-style:solid; border-color:grey;border-width:1px”>

<b><a href=,,url\_for(‘logout’)-->logout ,,session\*‘username’+--!</a></b>

</div>

</div>

</div>

</div>

</div>

</body>

</HTML>