

INVENTORY MANAGEMENT SYSTEM FOR RETAILERS

Project name	Inventory management system for retailers-online book store
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CREATE FLASK PROJECT

PYTHON

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'hkabs3720/'
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="EnterItem 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.itemC
at.Ite mCatDesc+"</TD></TR>"
    Tabl=tabl+"</TABLE></di
v>" 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
ItemName"> </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.itemC
    at.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="VendorName"> </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).fi
rst() 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(itm.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).fi
    rst()
    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")
                                rQt
y
=
    request.form.get("reqQuantit
y")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
RequestDate">
</div>
<div class="mb-3">
    <label for="reqQty" class="form-label">Request Quantity</label>
    <input type="number" class="form-control" name="reqQuantity"
placeholder="ItemsCount">
</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.p

yImport

os

From flask import Flask

From flask_sqlalchemy import

SQLAlchemyDb = 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)
```

```
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)
    e) pwd=db.Column(db.String,nullable=False)
    userType=db.Column(db.String,nullable=False)
    )
```