## IT-LAB\_ WEEK 8 SUBMISSIONS

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> Sec: B Sem :6

# Project level settings: week8/settings.py

```
Django settings for week8v2 project.
Generated by 'django-admin startproject' using Django 3.2.
For more information on this file, see
https://docs.djangoproject.com/en/3.2/topics/settings/
For the full list of settings and their values, see
https://docs.djangoproject.com/en/3.2/ref/settings/
11 11 11
from pathlib import Path
import os
\# Build paths inside the project like this: BASE DIR / 'subdir'.
BASE DIR = Path( file ).resolve().parent.parent
```

```
SECRET KEY =
'django-insecure-j3%$1xa5-10w#zi+a=k5!z8bpj32!ttx5f%r!z0+h8#k s8
u-n'
DEBUG = True
ALLOWED HOSTS = ['127.0.0.1']
# Application definition
INSTALLED APPS = [
   'prob4.apps.Prob4Config',
   'prob3.apps.Prob3Config',
   'django.contrib.admin',
   'django.contrib.auth',
   'django.contrib.contenttypes',
   'django.contrib.sessions',
   'django.contrib.messages',
   'django.contrib.staticfiles',
MIDDLEWARE = [
   'django.middleware.security.SecurityMiddleware',
   'django.contrib.sessions.middleware.SessionMiddleware',
   'django.middleware.common.CommonMiddleware',
   'django.middleware.csrf.CsrfViewMiddleware',
   'django.contrib.auth.middleware.AuthenticationMiddleware',
   'django.contrib.messages.middleware.MessageMiddleware',
   'django.middleware.clickjacking.XFrameOptionsMiddleware',
```

```
ROOT URLCONF = 'week8v2.urls'
TEMPLATES = [
       'BACKEND':
'django.template.backends.django.DjangoTemplates',
       'DIRS': [os.path.join(BASE DIR, 'templates')],
       'OPTIONS': {
               'django.template.context processors.debug',
               'django.template.context processors.request',
               'django.contrib.auth.context processors.auth',
'django.contrib.messages.context processors.messages',
           ],
       },
   },
WSGI APPLICATION = 'week8v2.wsgi.application'
DATABASES = {
   'default': {
       'ENGINE': 'django.db.backends.sqlite3',
       'NAME':os.path.join(BASE DIR, 'db.sqlite3'),
```

```
# Password validation
https://docs.djangoproject.com/en/3.2/ref/settings/#auth-passwor
AUTH PASSWORD VALIDATORS = [
       'NAME':
'django.contrib.auth.password validation.UserAttributeSimilarity
   },
   },
       'NAME':
'django.contrib.auth.password validation.CommonPasswordValidator
   },
       'NAME':
'django.contrib.auth.password validation.NumericPasswordValidato
   },
```

```
LANGUAGE CODE = 'en-us'
TIME ZONE = 'UTC'
USE I18N = True
USE L10N = True
USE TZ = True
# Static files (CSS, JavaScript, Images)
# https://docs.djangoproject.com/en/3.2/howto/static-files/
STATIC URL = '/static/'
# Default primary key field type
https://docs.djangoproject.com/en/3.2/ref/settings/#default-auto
DEFAULT AUTO FIELD = 'django.db.models.BigAutoField'
```

# week8/urls.py

```
"""week8 URL Configuration

The `urlpatterns` list routes URLs to views. For more information please see:
   https://docs.djangoproject.com/en/3.2/topics/http/urls/
Examples:
Function views
   1. Add an import: from my_app import views
   2. Add a URL to urlpatterns: path('', views.home, name='home')
```

```
Class-based views
  1. Add an import: from other app.views import Home
  2. Add a URL to urlpatterns: path('', Home.as view(),
name='home')
Including another URLconf
include, path
include('blog.urls'))
from django.contrib import admin
from django.urls import path, include
urlpatterns = [
  path('admin/', admin.site.urls),
  path('q1/',include('prob1.urls')),
  path('q2/',include('prob2.urls')),
  path('q3/',include('prob3.urls')),
  path('q4/',include('prob4.urls')),
```

Q4 Create a Django Page for entry of a Product information (title, price and description) and save it into the db. Create the index page where you would view the product entries in an unordered list.

prob4/urls.py

```
from django.urls import path
from . import views
urlpatterns = [
   path('', views.home, name="home"),
   path('entry', views.entry, name="entry"),
   path('index', views.index, name="index")
```

]

# prob4/views.py

```
from django.shortcuts import render
from .forms import ProductForm
from .models import Product
def home (request):
   return render(request, 'prog4.html')
def entry(request):
   form1 = ProductForm(request.POST)
   form = ProductForm()
   if form1.is valid():
       title = form1.cleaned data['title']
       price = form1.cleaned data['price']
       desc = form1.cleaned data['desc']
       Product.objects.create(title = title,price = price,desc =
desc)
   return render(request, 'prog4p1.html', { "form":form})
def index(request):
   products = Product.objects.all()
   return render(request, 'prog4p2.html', {"products":products})
```

#### prob4/models.py

```
from django.db import models

# Create your models here.

class Product(models.Model):
   title = models.CharField(max_length=100)
   price = models.IntegerField()
   desc = models.TextField()
```

## prob4/forms.py

```
from django import forms

class ProductForm(forms.Form):
   title = forms.CharField(max_length=100)
   price = forms.IntegerField()
   desc =

forms.CharField(widget=forms.Textarea(),label="description")
```

# Prog4.html

# Prog4p1.html

# Prog4p2.html





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# **Q2** Consider the following tables:

WORKS(person-name,Company-name,Salary) LIVES(Person\_name, Street, City) Assume Table data suitably. Design a Django webpage and include an option to insert data into WORKS table by accepting data from the user using TextBoxes. Also, include an option to retrieve the names of people who work for a particular company along with the cities they live in (particular company name must be accepted from the user).

prob2/urls.py

```
from django.urls import path
from . import views
urlpatterns = [
   path('', views.home, name="home"),
   path('portal', views.portal, name="portal"),
   path('search', views.search, name="search")
]
```

# prob2/forms.py

```
from django import forms

class Employee(forms.Form):
```

```
name = forms.CharField(max_length=100)
company = forms.CharField(max_length=100)
salary = forms.IntegerField()
street = forms.CharField(max_length=200)
city = forms.CharField(max_length=50)

class Company(forms.Form):
    company = forms.CharField(max_length=100)
```

## prob2/models.py

```
from django.db import models
from django.db.models.fields.related import ForeignKey

# Create your models here.
class Works(models.Model):
   name = models.CharField(max_length=100)
   company = models.CharField(max_length=100)
   salary = models.IntegerField()

class Lives(models.Model):
   name = models.CharField(max_length=100)
   street = models.CharField(max_length=200)
   city = models.CharField(max_length=50)
```

#### prob2/views.py

```
from django.shortcuts import render
from .models import Works,Lives
from .forms import Employee,Company
# Create your views here.
def home(request):
    return render(request,'prog2.html')

def portal(request):
    form = Employee()
    form1 = Employee(request.POST)
```

```
if form1.is valid():
       name = form1.cleaned data['name']
       company = form1.cleaned data['company']
       salary = form1.cleaned data['salary']
       street = form1.cleaned data['street']
       city = form1.cleaned data['city']
Works.objects.create(name=name,company=company,salary=salary)
       Lives.objects.create(name=name, street=street, city=city)
   return render(request, 'prog2p1.html', {"form":form})
def search(request):
   form = Company()
   form1 = Company(request.POST)
  if form1.is valid():
       company = form1.cleaned data["company"]
       employa = Works.objects.all().filter(company = company)
       employees = []
       for e in employa:
           employees.append(Lives.objects.get(name = e.name))
       return
render(request, "prog2p2.html", {"form":form1, "employees":employee
s } )
   return render(request, "prog2p2.html", {"form":form})
```

#### Prog2.html

```
Consider the following tables:
WORKS(person-name,Company-name,Salary)
     LIVES (Person name, Street, City) Assume Table data
suitably. Design a
     Django webpage and include an option to insert data into
WORKS table by
    accepting data from the user using TextBoxes. Also, include
an option to
     retrieve the names of people who work for a particular
company along with
     the cities they live in (particular company name must be
accepted from the
    user).
  <a href="{% url 'portal' %}">update employee portal</a><br />
  <a href="{% url 'search' %}">Find the employee list of a
company</a>
```

#### Prog2p1.html

```
LIVES (Person name, Street, City) Assume Table data
suitably. Design a
     Django webpage and include an option to insert data into
WORKS table by
     accepting data from the user using TextBoxes. Also, include
an option to
     retrieve the names of people who work for a particular
company along with
     the cities they live in (particular company name must be
accepted from the
    user).
  <form action="portal" method="POST">
     {% csrf token %}
       {{form.as table}}
    <input type="submit" value="insert" />
  <a href="{% url 'home' %}">Go back to home</a>
```

#### Prog2p2.html

```
Consider the following tables:
WORKS(person-name,Company-name,Salary)
    LIVES (Person name, Street, City) Assume Table data
suitably. Design a
    Django webpage and include an option to insert data into
WORKS table by
    accepting data from the user using TextBoxes. Also, include
an option to
    retrieve the names of people who work for a particular
company along with
    the cities they live in (particular company name must be
accepted from the
    user).
  <form action="search" method="POST">
    {% csrf token %} {{form}}
    <input type="submit" value="search" />
      name
      city
    {% for employee in employees %}
      { {employee.name} } 
      {td>{{employee.city}}
    {% endfor %}
  <a href="{% url 'home' %}">Go back to home</a>
```

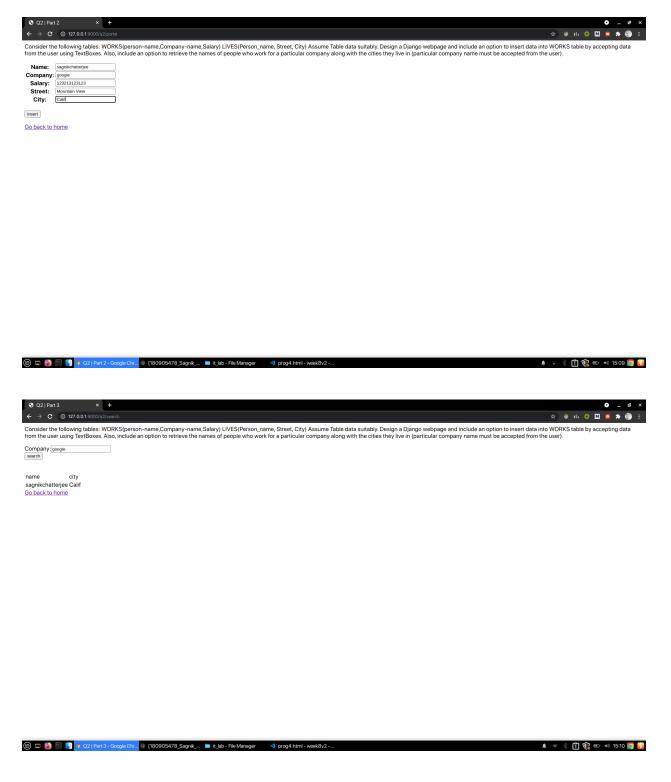




Consider the following tables: WORKS(person-name,Company-name,Salary) LIVES(Person\_name, Street, City) Assume Table data suitably, Design a Django webpage and include an option to insert data into WORKS table by accepting data from the user using TextBoxes. Also, include an option to retrieve the names of people who work for a particular company along with the cities they live in (particular company name must be accepted from the user).

update employee portal Find the employee list of a company





Q3 There are three tables in the database an author table has a first name, a last name and an email address. A publisher table has a name, a street address, a city, a state/ province, a country, and a Web site. A book table has a title and a publication date. It also has one or more authors (a

many-to-many relationship with authors) and a single publisher (a one-to-many relationship - aka foreign key - to publishers). Design a form which populates and retrieves the information from the above database using Django.

# prob3/views.py

```
from django.shortcuts import render
from .forms import
AuthorForm, PublisherForm, BookForm, AuthorSearch, PublisherSearch, B
ookSearch
from .models import Au, Publisher, Book
def home (request):
   return render(request, 'prog3.html')
def publisherEntry(request):
   form = PublisherForm()
   form1 = PublisherForm(request.POST)
   if form1.is valid():
       name = form1.cleaned data["name"]
       street = form1.cleaned data["street"]
       city = form1.cleaned data["city"]
       state = form1.cleaned data["state"]
       country = form1.cleaned data["country"]
       site = form1.cleaned data["site"]
       Publisher.objects.create(name = name, street = street, city
= city,state = state,country = country,site = site)
   return render(request, 'prog3p1.html', {"form":form})
def authorEntry(request):
   form = AuthorForm()
   form1 = AuthorForm(request.POST)
   if form1.is valid():
       fname = form1.cleaned data["fname"]
```

```
lname = form1.cleaned data["lname"]
       email = form1.cleaned data["email"]
       Au.objects.create(fname = fname, lname = lname, em = email)
   return render(request, 'prog3p2.html', {"form":form})
def bookEntry(request):
   form = BookForm()
   form1 = BookForm(request.POST)
   if form1.is valid():
      a = form1.cleaned data
      title = a["title"]
      pdate = a["pdate"]
      pname = a["pname"]
       anames = a["anames"].split()
      print(anames)
      publisher = Publisher.objects.get(name = pname)
      authors = []
      book = Book(title = title,pdate = pdate,publisher =
publisher)
      book.save()
       for i in anames:
           a = Au.objects.get(fname = i)
           book.authors.add(a)
       book.save()
   return render(request, 'prog3p3.html', { "form":form})
def searchBook(request):
   form = BookSearch()
   form1 = BookSearch(request.POST)
   if form1.is valid():
       title = form1.cleaned data["title"]
       book = Book.objects.get(title = title)
       return
render(request, 'prog3p4.html', {"form":form1, "book":book})
```

```
return render(request, 'prog3p4.html', {"form":form})
def searchAuthor(request):
   form = AuthorSearch()
   form1 = AuthorSearch(request.POST)
   if form1.is valid():
       fname = form1.cleaned data["fname"]
       author = Au.objects.get(fname = fname)
       return
render(request, 'prog3p5.html', {"form":form1, "author":author})
   return render(request, 'prog3p5.html', {"form":form})
def searchPublisher(request):
   form = PublisherSearch()
   form1 = PublisherSearch(request.POST)
   if form1.is valid():
       name = form1.cleaned data["name"]
       publisher = Publisher.objects.get(name = name)
       return
render(request, 'prog3p6.html', {"form":form1, "publisher":publishe
r})
   return render(request, 'prog3p6.html', {"form":form})
```

#### prob3/urls.py

```
from django.urls import path
from . import views
urlpatterns = [
   path('', views.home, name="home"),

path('publisherEntry', views.publisherEntry, name="publisherEntry"),
   path('authorEntry', views.authorEntry, name="authorEntry"),
   path('bookEntry', views.bookEntry, name="bookEntry"),
   path('searchBook', views.searchBook, name="searchBook"),
   path('searchAuthor', views.searchAuthor, name="searchAuthor"),
```

```
path('searchPublisher', views.searchPublisher, name="searchPublish
er"),
]
```

#### prob3/models.py

```
from django.db import models
from django.db.models.aggregates import Count
class Publisher(models.Model):
  name = models.CharField(max length=100)
  street = models.CharField(max length=200)
  city = models.CharField(max length=50)
  state = models.CharField(max_length=50)
  country = models.CharField(max length=50)
  site = models.URLField()
class Au(models.Model):
  fname = models.CharField(max length=100)
  lname = models.CharField(max length=100)
  em = models.EmailField()
class Book(models.Model):
  title = models.CharField(max length=200)
  pdate = models.DateField()
  authors = models.ManyToManyField(Au)
  publisher =
models.ForeignKey(Publisher,on delete=models.CASCADE)
```

#### prob3/forms.py

```
from django import forms

class PublisherForm(forms.Form):
```

```
name = forms.CharField(max length=100)
  street = forms.CharField(max length=200)
  city = forms.CharField(max length=50)
  state = forms.CharField(max length=50)
  country = forms.CharField(max length=50)
  site = forms.URLField()
class AuthorForm(forms.Form):
   fname = forms.CharField(max length=100, label="first name")
  lname = forms.CharField(max length=100, label="last name")
  email = forms.EmailField()
class BookForm(forms.Form):
  title = forms.CharField(max length=200)
  pdate = forms.DateField(label="publication date")
  pname = forms.CharField(max length=100,label="Publisher")
name")
  anames = forms.CharField(max length=400,label="Enter first
names of authors by space seperation")
class BookSearch(forms.Form):
   title = forms.CharField(max length=200)
class AuthorSearch(forms.Form):
   fname = forms.CharField(max length=100, label="enter the
first name")
class PublisherSearch(forms.Form):
  name = forms.CharField(max length=100)
```

#### Prob3.html

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

```
<meta charset="UTF-8" />
   <meta http-equiv="X-UA-Compatible" content="IE=edge" />
   <meta name="viewport" content="width=device-width,</pre>
initial-scale=1.0" />
   <title>Q3 | part 1</title>
     There are three tables in the database an author table has
a first name, a
     last name and an email address. A publisher table has a
name, a street
     address, a city, a state/ province, a country, and a Web
site. A book
     table has a title and a publication date. It also has one
or more authors
     (a many-to-many relationship with authors) and a single
publisher (a
     one-to-many relationship - aka foreign key - to
publishers). Design a form
     which populates and retrieves the information from the
above database
    using Django.
   <a href="{% url 'publisherEntry' %}">Register a
publisher</a><br />
   <a href="{% url 'authorEntry' %}">Register a author</a><br />
  <a href="{% url 'bookEntry' %}">Register a book</a><br />
  <a href="{% url 'searchBook' %}">Search for a book</a><br />
   <a href="{% url 'searchAuthor' %}">Search for a author</a><br/>><br/>br
   <a href="{% url 'searchPublisher' %}">Search for a
publisher</a>
```

```
</html>
```

#### Prob3p1.html

# Prob3p2.html

# Prob3p3.html

```
<html lang="en">
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
initial-scale=1.0">
  <title>Book Search</title>
  <h1>Search for book</h1>
  <form action="searchBook" method="POST">
      {% csrf token %}
      {{form}}
      <br><input type="submit" value = "Search">
          Title
          Published Date
          Name of the Publisher
          Name of the authors
         {td>{{book.title}}
         {td>{ {book.pdate}} 
          {td>{{book.publisher.name}}
              {% for author in book.authors.all %}
              {{author.fname}} {{author.lname}} <br>
              {% endfor %}
  <a href="{% url 'home' %}">Go back to home</a>
```

```
</body>
</html>
```

#### Prob3p5.html

```
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width,</pre>
initial-scale=1.0">
  <title>Author Search</title>
  <h1>Search for Author</h1>
  <form action="searchAuthor" method="POST">
      {% csrf token %}
      {{form}}
      <br><input type="submit" value = "Search">
          First Name
          Last Name
          email
          { {author.fname } } 
          { { author.lname } } 
          { {author.em} } 
  <a href="{% url 'home' %}">Go back to home</a>
```

# Prob3p6.html

```
<html lang="en">
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width,</pre>
initial-scale=1.0">
  <title>Publisher Search</title>
  <h1>Search for Publisher</h1>
  <form action="searchPublisher" method="POST">
      {% csrf token %}
      {{form}}
      <br><input type="submit" value = "Search">
         Name
         Street
         City
         State
         Country
         Website
         {td>{{publisher.name}}
         {td>{{publisher.street}}
         {td>{{publisher.city}}
         {td>{{publisher.state}}
         {td>{{publisher.country}}}
         {td>{{publisher.site}}
  <a href="{% url 'home' %}">Go back to home</a>
```





There are three tables in the database an author table has a first name, a last name and an email address. A publisher table has a name, a street address, a city, a state/ province, a country, and a Web site. A book table has a title and a publication date. It also has one or more authors (a many-to-many relationship with authors) and a single publisher (a one-to-many relationship – aka foreign key – to publishers). Design a form which populates and retrieves the information from the above database using Django.

Register a publisher Register a author Register a book Search for a book Search for a author Search for a publisher



#### **Publisher Registration:**



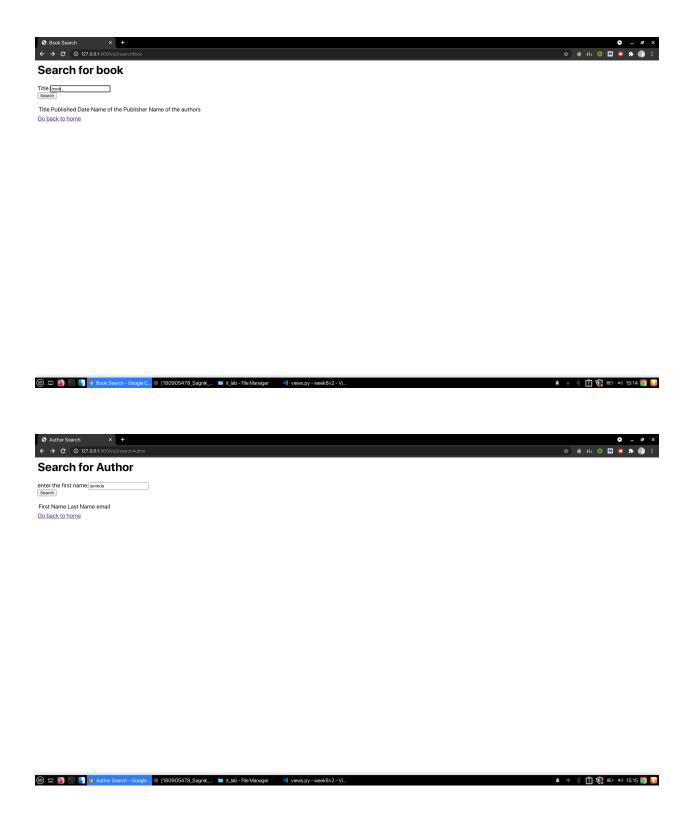
Go back to home













Q1 Design a web site using Django, which is a website directory – A site containing links to other websites. A web page has different categories. • A category table has a name, number of visits, and number of likes. • A page table refers to a category, has a title, URL, and many views. Design a form that populates the above database and displays it.

```
prob1/urls.py
```

```
from django.urls import path
from . import views
urlpatterns = [
   path('', views.home, name="home"),
   path('category', views.category, name="category"),
   path('page/', views.page, name = "page"),
   path('display/', views.display, name="display")
]
```

#### prob1/forms.py

```
from prob1.models import Category
from django import forms
```

```
class CategoryForm(forms.Form):
    name = forms.CharField(max_length=100)
    numberOfVisits = forms.IntegerField()
    numberOfLikes = forms.IntegerField()

class PageForm(forms.Form):
    category = forms.CharField(max_length=100)
    title = forms.CharField(max_length=100)
    url = forms.URLField()
    view = forms.IntegerField()
```

#### prob1/models.py

```
from django.db import models

class Category(models.Model):
    name = models.CharField(max_length=100,primary_key=True)
    numberOfVisits = models.IntegerField()
    numberOfLikes = models.IntegerField()

# Create your models here

class Page(models.Model):
    category = models.CharField(max_length=100)
    title = models.CharField(max_length=100)
    url = models.URLField(primary_key=True)
    view = models.IntegerField()
```

#### prob1/views.py

```
from django.shortcuts import render
from .forms import CategoryForm, PageForm
from .models import Category, Page
# Create your views here.
def home(request):
```

```
return render(request, 'prog1.html')
def category(request):
   form1 = CategoryForm()
   form = CategoryForm(request.POST)
  if form.is valid():
       name = form.cleaned data["name"]
      nov = form.cleaned data["numberOfVisits"]
       nol = form.cleaned data["numberOfLikes"]
       Category.objects.create(name = name, numberOfVisits =
nov, numberOfLikes = nol)
   return render(request, 'prog1p1.html', {"form":form1})
def page(request):
   form1 = PageForm()
   form = PageForm(request.POST)
   if form.is valid():
       category = form.cleaned data['category']
       title = form.cleaned data['title']
       url = form.cleaned data['url']
       view = form.cleaned data['view']
       Page.objects.create(category = category, title = title, url
= url, view = view)
   return render(request, 'prog1p2.html', {"form":form1})
def display(request):
  pages = Page.objects.all()
   categories = Category.objects.all()
   return
render(request,'prog1p3.html',{"pages":pages,"categories":catego
ries})
```

# prog1.html

```
<html lang="en">
  <meta charset="UTF-8" />
  <meta http-equiv="X-UA-Compatible" content="IE=edge" />
  <meta name="viewport" content="width=device-width,</pre>
initial-scale=1.0" />
   <title>Q1 | Part 1</title>
     Design a web site using Django, which is a website
directory - A site
     containing links to other websites. A web page has
different categories. •
     A category table has a name, number of visits, and number
of likes. • A
     page table refers to a category, has a title, URL, and many
views. Design
     a form that populates the above database and displays it.
  <a href="{% url 'category' %}">Enter Information to category
table</a><br />
   <a href="{% url 'page'}">Enter Information to Page
table</a><br />
   <a href="{% url 'display'}">Display Category table and page
table</a><br />
```

#### Prog1p1.html

```
<html lang="en">
  <head>
  <meta charset="UTF-8" />
```

```
<meta http-equiv="X-UA-Compatible" content="IE=edge" />
initial-scale=1.0" />
   <title>Q1 | part 2</title>
     Design a web site using Django, which is a website
directory - A site
     containing links to other websites. A web page has
different categories. •
     A category table has a name, number of visits, and number
of likes. • A
     page table refers to a category, has a title, URL, and many
views. Design
    a form that populates the above database and displays it.
  <form action="category" method="POST">
     {% csrf token %}
       {{form.as table}}
     <input type="submit" value="insert" />
  <a href="{% url 'home' %}">Go back to home</a>
```

# Prog1p2.html

```
<meta name="viewport" content="width=device-width,</pre>
initial-scale=1.0" />
  <title>Q1 | Part 3</title>
     Design a web site using Django, which is a website
directory - A site
     containing links to other websites. A web page has
different categories. •
     A category table has a name, number of visits, and number
of likes. • A
     page table refers to a category, has a title, URL, and many
views. Design
     a form that populates the above database and displays it.
  <form action="page" method="POST">
     {% csrf token %}
       {{form.as table}}
     <input type="submit" value="insert" />
  <a href="{% url ('home') %}">back to home</a>
```

#### Prog1p3.html

```
<title>Q1 | Part 4</title>
    Design a web site using Django, which is a website
directory - A site
    containing links to other websites. A web page has
different categories. •
    A category table has a name, number of visits, and number
of likes. • A
    page table refers to a category, has a title, URL, and many
views. Design
    a form that populates the above database and displays it.
  <h1>Category Table:</h1>
      Name
      Number of Visits
      Number of likes
    {% for category in categories %}
      { (category.name) } 
      {td>{{category.numberOfVisits}}
      { (category.numberOfLikes) } 
    {% endfor %}
  <h1>Page table</h1>
```



Design a web site using Django, which is a website directory – A site containing links to other websites. A web page has different categories. • A category table has a name, number of visits, and number of likes. • A page table refers to a category, has a title, URL, and many views. Design a form that populates the above database and displays it.

Enter Information to category table Enter Information to Page table Display Category table and page table

