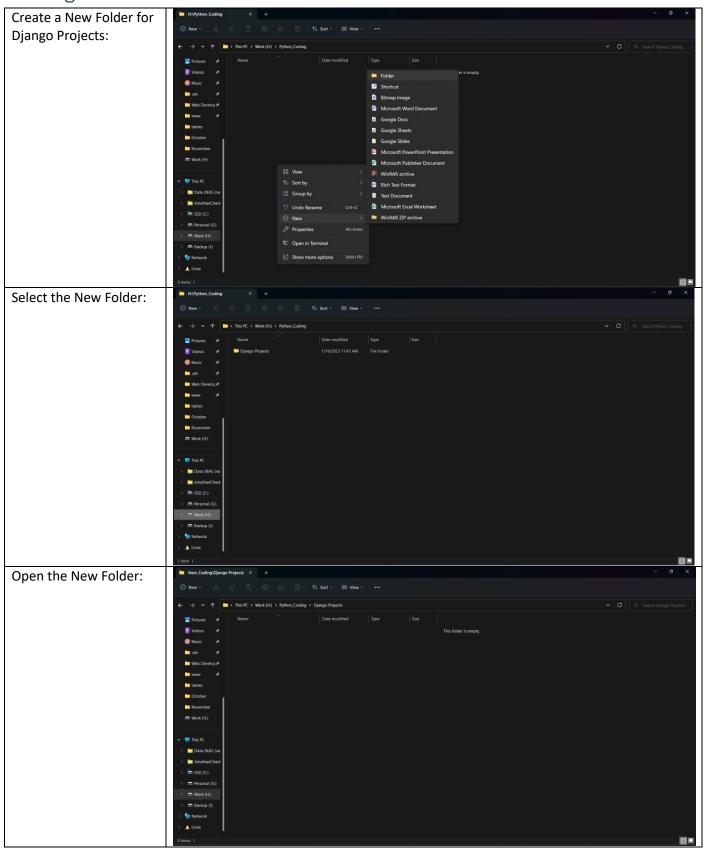
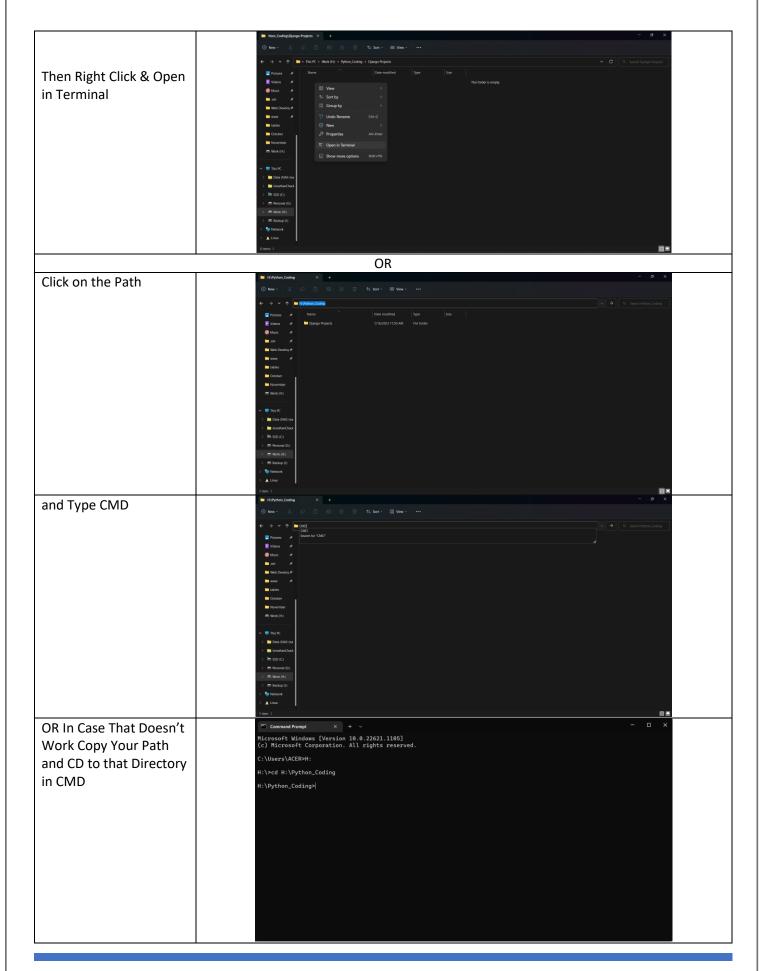
# Contents & Index

Getting Started	2
Creating an Environment	4
Downloading Django	5
Start a Django Project in the Current Directory	5
Start an Django App	6
Migrate	8
Creating Templates Folder	8
Print the Contents of a HTML File	9
Data Communication	10
Call Data to the Template	10
Send List Data to the Template	10
Creating Themes	11
Form Input	12
SQL	14
Initialization	14
Migrations of Models	14
Read ∨ Write Data	15
Static Folder	17
Initialization	17
Create Resources Folders	18
CSS	18
JS	18
IMG	18
Fonts	18
Collect Static	18
Connect to HTML Page	19
Project	20
Refer	21
HTML	21
SQL	21

# **Getting Started**



#### Django

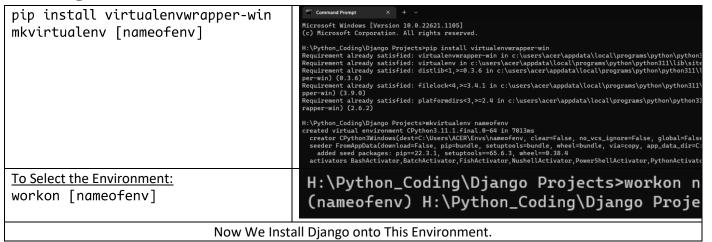


#### Django



In Case You Don't Get the Desired Output Go to <a href="https://www.python.org/downloads/">https://www.python.org/downloads/</a> Download the Latest Version and During Installation Don't Forget to Add Python to Path &or Add Python to Environment Variables.

# Creating an Environment



# Downloading Django

```
(nameofenv) H:\Python_Coding\Django Projects>pip install django

django-admin -version

(nameofenv) H:\Python_Coding\Django Projects>pip install django

Using cached Django-4.1.5-py3-none-any.whl (8.1 MB)

Collecting asgiref<4,>=3.5.2

Using cached asgiref-3.6.0-py3-none-any.whl (23 kB)

Collecting sqlparse>=0.2.2

Using cached sqlparse-0.4.3-py3-none-any.whl (42 kB)

Collecting tzdata

Using cached tzdata-2022.7-py2.py3-none-any.whl (340 kB)

Installing collected packages: tzdata, sqlparse, asgiref, django

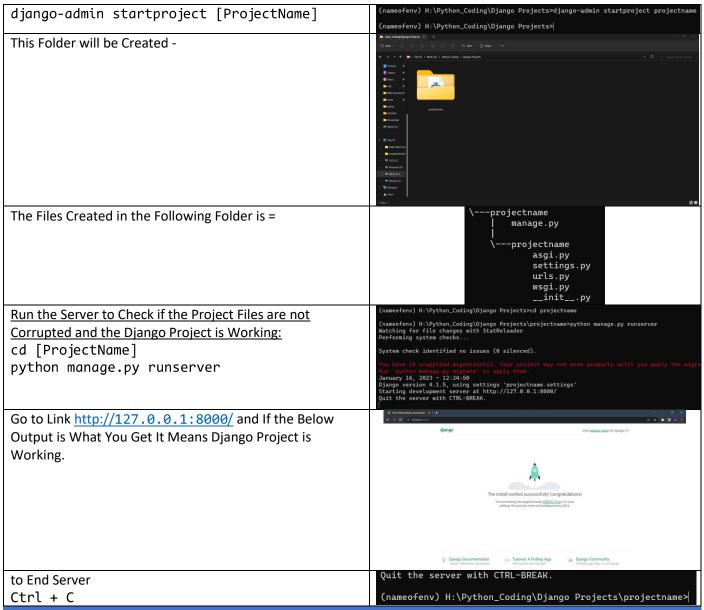
Successfully installed asgiref-3.6.0 django-4.1.5 sqlparse-0.4.3 tzdata-2022.7

(nameofenv) H:\Python_Coding\Django Projects>django-admin --version

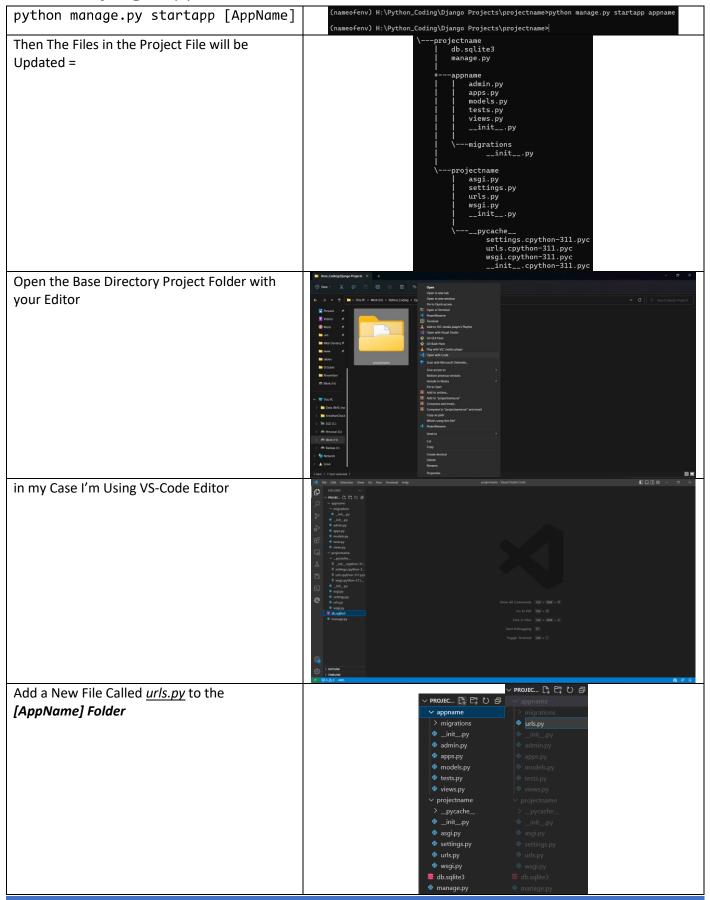
4.1.5

(nameofenv) H:\Python_Coding\Django Projects>
```

# Start a Django Project in the Current Directory



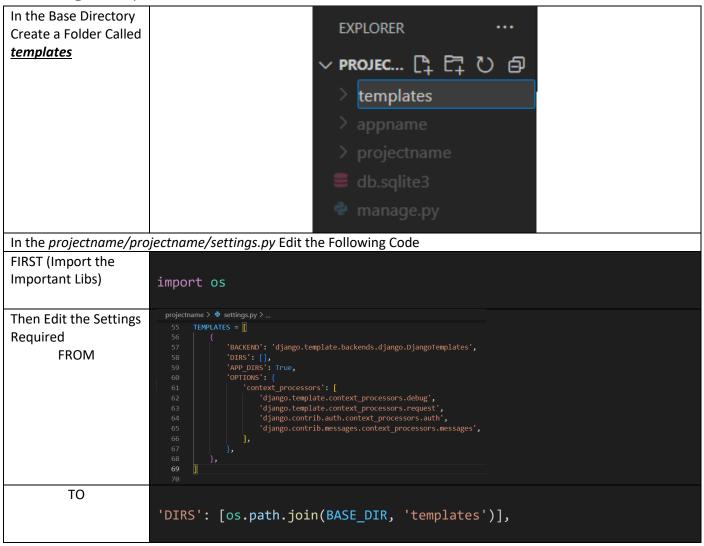
# Start an Django App



```
In the projectname/appname/views.py Create a Function with the Page ID:
  FROM
           from django.shortcuts import render
           # Create your views here.
   TO
           from django.shortcuts import render
           from django.http import HttpResponse
           from django.template import loader
           # Create your views here.
           def pageID(request):
               return HttpResponse("Basic HTML Codes Can Go Here")
In the projectname/appname/urls.py
  FROM
   TO
           from django.urls import path
           from . import views
           urlpatterns = [
               #This is Where You add the Path Code
               path('',views.pageID, name = "Page Name" ), #Path for HomePage would be
           Empty
In the projectname/projectname/urls.py
FROM
           from django.contrib import admin
           from django.urls import path
           urlpatterns = [
               path('admin/', admin.site.urls),
TO
           from django.contrib import admin
           from django.urls import path, include
           urlpatterns = [
               path('admin/', admin.site.urls),
               path('', include('appname.urls'))
Then
RUNSERVER
```

## Migrate

# Creating Templates Folder



```
Then Create a File in
the templates Folder
Called index.html fill
it with Default HTML
Code for Now:
```

## Print the Contents of a HTML File

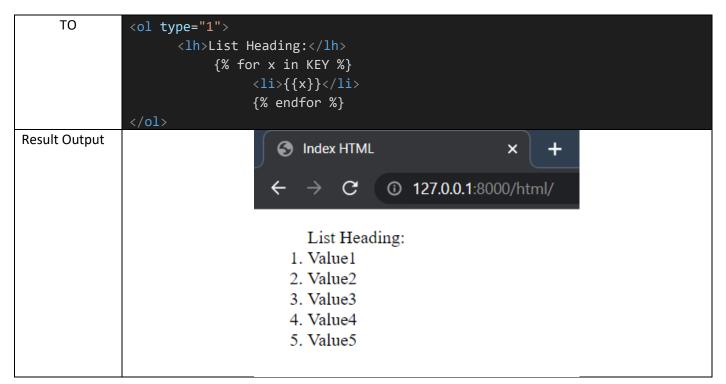
```
Lets Print The Contents of index.html
First Let's go to
                                def HTMLPage(request):
projectname/appname/views.p
                                     #This Syntax Can Also be Used.
and Create a Function to Call
                                     template = loader.get template('index.html')
the HTML File
                                     return HttpResponse(template.render())
                                     return render(request, 'index.html')
and then Call the Function to
projectname/appname/urls.py
                                    path('html/', views.HTMLPage, name = "HTML Page"),
add Something to the HTML
Page
                                <body>
projectname/templates/index.h
                                     This is the Contents of the HTML Page called index.html
tml
                                </body>
Run the Server
                                   → C ① 127.0.0.1
& Go To
                                 This is the Contents of the HTML Page called index.html
http://127.0.0.1:8000/htm
1/
```

### **Data Communication**

### Call Data to the Template

```
In the File projectname/appname/views.py
  FROM
           def HTMLPage(request):
                #This Syntax Can Also be Used.
                template = loader.get template('index.html')
                return HttpResponse(template.render())
                return render(request, 'index.html')
   TO
           def HTMLPage(request):
                return render(request, 'index.html', {'KEY':'VALUE'})
In the File projectname/templates/index.html
  FROM
            <body>
                This is the Contents of the HTML Page called index.html
            </body>
   TO
            <body>
                We are Calling \langle b \rangle \langle i \rangle \langle u \rangle \{\{KEY\}\} \langle /u \rangle \langle /i \rangle \langle /b \rangle to the HTML Page.
            </body>
Result
Output
                       Index HTML
                                                                          X
                                 C 127.0.0.1:8000/html/
              We are Calling <u>VALUE</u> to the HTML Page.
```

# Send List Data to the Template



### **Creating Themes**

```
In projectname/appname/models.py Create a Class Containing a Data Template
       FROM
                    from django.db import models
                    # Create your models here.
        TO
                    from django.db import models
                    # Create your models here.
                    class theme:
                         dataTypeNameForStr:str
                         dataTypeNameForInt:int
In the File projectname/appname/views.py
       FIRST
                    from appname.models import theme
Import the Class from
the models.py File
       FROM
                         List = ["Value1", "Value2", "Value3", "Value4", "Value5"]
                         return render(request, 'index.html', {'KEY': List})
        TO
                         Object1 = theme()
(Import the Class as
                         Object1.dataTypeNameForStr = "Jonathan"
an Object )
                         Object1.dataTypeNameForInt = 1805
                         Object2 = theme()
                         Object2.dataTypeNameForStr = "Chacko"
                         Object2.dataTypeNameForInt = 2002
                         MasterListObject = [Object1, Object2]
                         return render(request, 'index.html', {'KEY':MasterListObject})
```

```
In the File projectname/templates/index.html
     FROM
                 type="1">
                      <lh>List Heading:</lh>
                          {% for x in KEY %}
                              {{x}}
                              {% endfor %}
                 TO
                 {% for x in KEY %}
                        {{x.dataTypeNameForStr}}
                           {{x.dataTypeNameForInt}}
                        {% endfor %}
                 Result Output
                                Index HTML
                                                        ×
                                      C 127.0.0.1:8000/html/
                               Jonathan Chacko
                               1805
                               2002
```

#### Form Input

```
In the projectname/appname/views.py
FROM
           Object1 = theme()
           Object1.dataTypeNameForStr = "Jonathan"
           Object1.dataTypeNameForInt = 1805
           Object2 = theme()
           Object2.dataTypeNameForStr = "Chacko"
           Object2.dataTypeNameForInt = 2002
           MasterListObject = [Object1, Object2]
            return render(request, 'index.html', {'KEY': MasterListObject})
 TO
           if request.method == 'POST':
                num1 = request.POST['num1'] # input1 = request.GET['num1']
               num2 = request.POST['num2'] # input2 = request.GET['num2']
                if 'add' in request.POST:
                    result = int(num1) + int(num2)
                    return render(request, 'index.html', {'KEY':result})
            return render(request, 'index.html')
```

```
In the File projectname/templates/index.html
FROM
           {% for x in KEY %}
           {{x.dataTypeNameForStr}}
               {{x.dataTypeNameForInt}}
               {% endfor %}
       TO
       <form method="POST">
           {% csrf_token %}
           <label for="num1">Enter Any Number: </label>
               <input type="text" name="num1"/>
           <label for="num2">Enter Any Number: </label>
               <input type="text" name="num2"/>
           <br/>
           <button type="submit" name="add">+</button>
       </form>
       <h3>The Result is = </h3><br>
       <h4>{{KEY}}</h4>
Result
          ×
Outpu
t
             \rightarrow C
                      ① 127.0.0.1:8000/html/
        Enter Any Number: 2
                                               Enter Any Number: 1
         +
        The Result is =
        3
Django's login form is returned using the POST method, in which the browser bundles up
the form data, encodes it for transmission, sends it to the server, and then receives
back its response.
GET, by contrast, bundles the submitted data into a string, and uses this to compose a
```

#### SQL

#### Initialization

```
In the projectname/projectname/settings.py Edit the Following Code:
  FROM
            INSTALLED APPS = [
                 'django.contrib.admin',
                 'django.contrib.auth',
                 'django.contrib.contenttypes',
                 'django.contrib.sessions',
                 'django.contrib.messages',
                 'django.contrib.staticfiles',
   TO
          INSTALLED APPS = [
              'django.contrib.admin',
              'django.contrib.auth',
              'django.contrib.contenttypes',
              'django.contrib.sessions',
              'django.contrib.messages',
              'django.contrib.staticfiles',
              'appname',
```

#### Migrations of Models

```
Create a Class Containing a Model in In
                                                                                                                                                                        class tablename(models.Model):
projectname/appname/models.py
                                                                                                                                                                                        dtstr1 = models.CharField(max_length=255)
                                                                                                                                                                                        dtstr2 = models.CharField(max length=255)
                                                                                                                                                                                        #This is to Sync SQLite3
py manage.py makemigrations appname
                                                                                                                                                                         Microsoft Windows [Version 10.0.22621.1105]
(c) Microsoft Corporation. All rights reserved.
py manage.py migrate
                                                                                                                                                                         H:\Python_Coding\Django Projects\projectname>python manage.py makemigrations appname
                                                                                                                                                                         Migrations for 'appname':
appname\migrations\0001_initial.py
                                                                                                                                                                        H:\Python\Web Development\DjangoClass\projectname>py manage.py migrat
Operations to perform:
Apply all migrations: admin, appname, auth, contenttypes, sessions
Running migrations:
Applying contenttypes.0001_initial... OK
Applying admin.0001_initial... OK
Applying admin.0002_logentry_remove_auto_add... OK
Applying admin.0003_logentry_add_action_flag_choices... OK
Applying appname.0001_initial... OK
Applying appname.0001_initial... OK
Applying appname.0001_initial... OK
Applying auth.0003_later_user_index_length... OK
Applying auth.0002_alter_permission_name_max_length... OK
Applying auth.0003_alter_user_email_max_length... OK
Applying auth.0005_alter_user_username_opts... OK
Applying auth.0005_alter_user_last_login_null... OK
Applying auth.0006_require_contenttypes_0002... OK
Applying auth.0007_alter_validators_add_error_messages... OK
Applying auth.0008_alter_user_last_name_max_length... OK
Applying auth.0008_alter_user_last_name_max_length... OK
Applying auth.0010_alter_proup_name_max_length... OK
Applying auth.0011_update_proxy_permissions... OK
Applying auth.0012_alter_user_first_name_max_length... OK
Applying sessions.0001_initial... OK
H:\Python\Web_Development\Diangoclass\projectname>
                                                                                                                                                                         H:\Python\Web Development\DjangoClass\projectname>py manage.py migrate
                                                                                                                                                                          H:\Python\Web Development\DjangoClass\projectname>
```

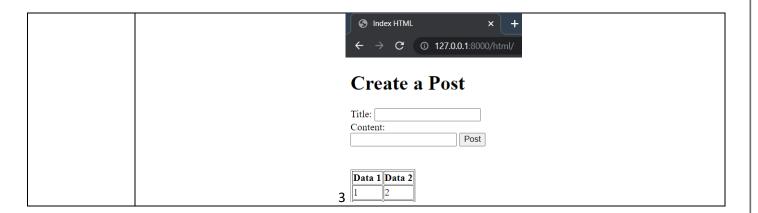


#### Read &or Write Data

```
In the projectname/appname/views.py
    FROM
                  if request.method == 'POST':
                      num1 = request.POST['num1'] # input1 = request.GET['num1']
                      num2 = request.POST['num2'] # input2 = request.GET['num2']
                      if 'add' in request.POST:
                           result = int(num1) + int(num2)
                           return render(request, 'index.html', {'KEY':result})
                  return render(request, 'index.html')
     TO
                  if request.method == 'POST':
                       if request.POST.get('data1') and request.POST.get('data2'):
                           post = tablename()
                           post.dtstr1 = request.POST.get('data1')
                           post.dtstr2 = request.POST.get('data2')
                           post.save()
                           return render(request, 'index.html')
                  else:
                      objectName = tablename.objects.all()
                      return render(request, 'index.html', {'KEY': objectName})
```

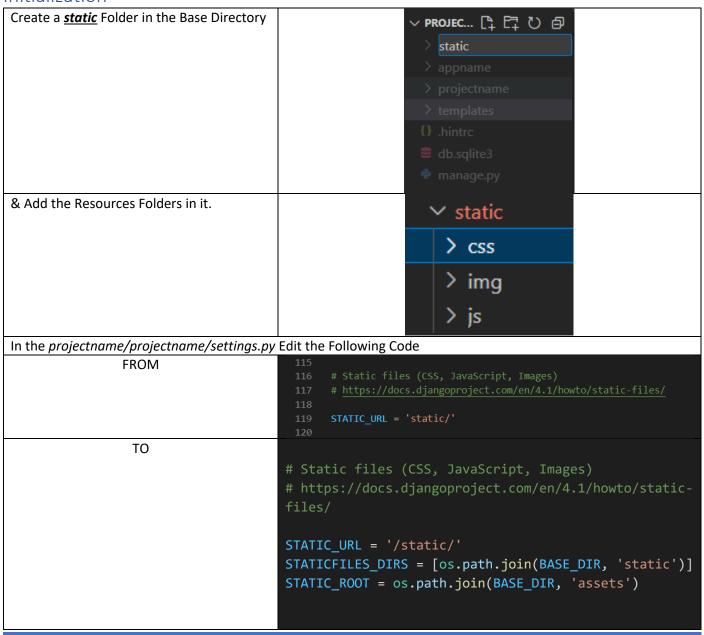
```
In the File projectname/templates/index.html
FROM
              <form method="POST">
                  {% csrf token %}
                  <label for="num1">Enter Any Number: </label>
                      <input type="text" name="num1"/>
                  <label for="num2">Enter Any Number: </label>
                      <input type="text" name="num2"/>
                  <button type="submit" name="add">+</button>
              </form>
              <br><br><br><br><
              <h3>The Result is = </h3><br>
              <h4>{{KEY}}</h4>
TO
             <h1>Create a Post </h1>
              <form action="" method="POST">
                  {% csrf_token %}
                 Title: <input type="text" name="data1"/><br/>
                 Content: <br/>
                 <input type="text" name="data2"/>
                  <input type="submit" value="Post"/>
              </form>
              <br><br><br><
              Data 1
                     Data 2
                  {% for x in KEY %}
                     {{ x.dtstr1 }}
                     {{ x.dtstr2 }}
                  {% endfor %}
              Result Output
                           Index HTML
                                                     Index HTML
                           ← → C ① 127.0.0.1:8000/html/
                                                    ← → C ① 127.0.0.1:8000/html/
                           Create a Post
                                                   Create a Post
                           Title:
                           Content:
                                                   Title: 1
                                         Post
                                                    Content:
                                                                    Post
                           Data 1 Data 2
                                                    Data 1 Data 2
                         1
                                                  2
```

#### Django



## Static Folder

#### Initialization



### Create Resources Folders

#### **CSS**

```
Create a CSS File called <u>first.css</u> then

open projectname\static\css\first.css & Add Script to It

body {

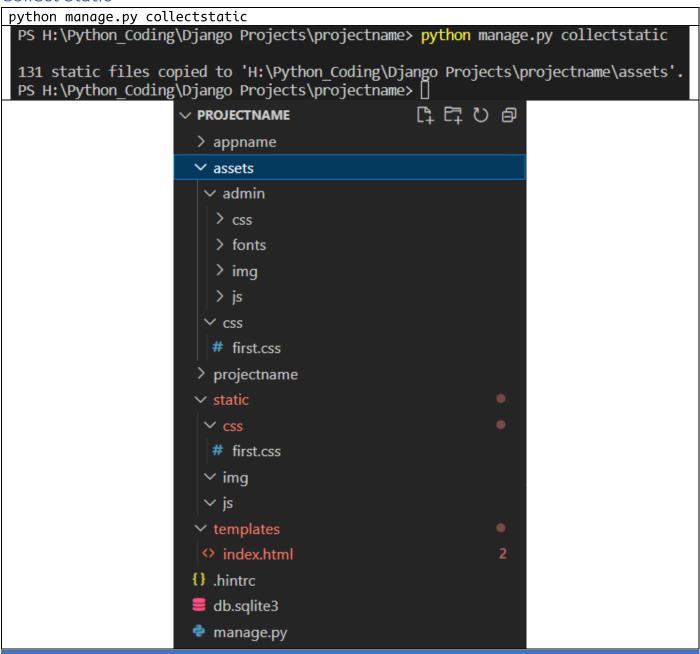
background-color: lightblue;

font-family: verdana;
}
```

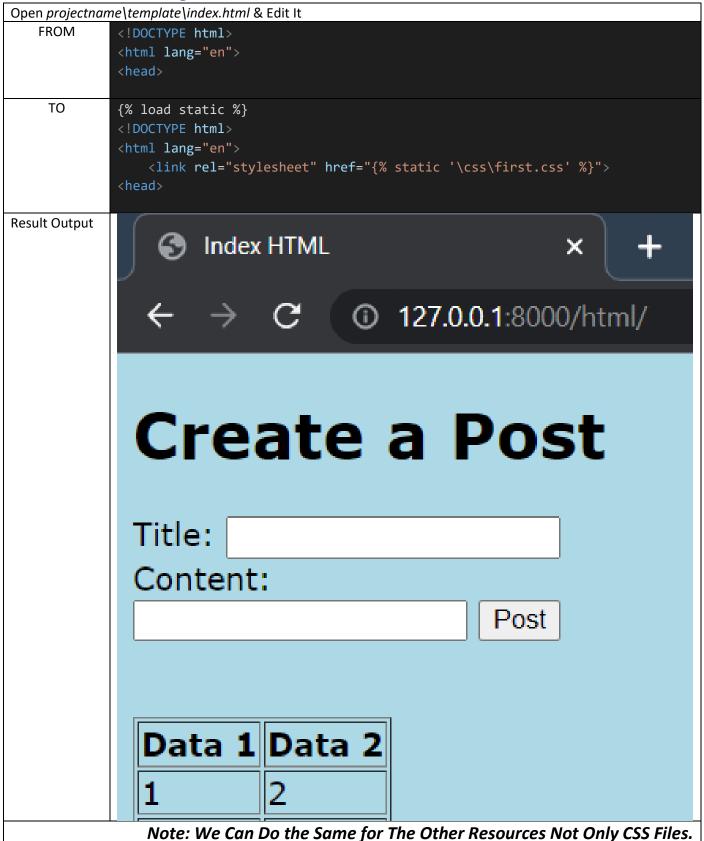
JS IMG

**Fonts** 

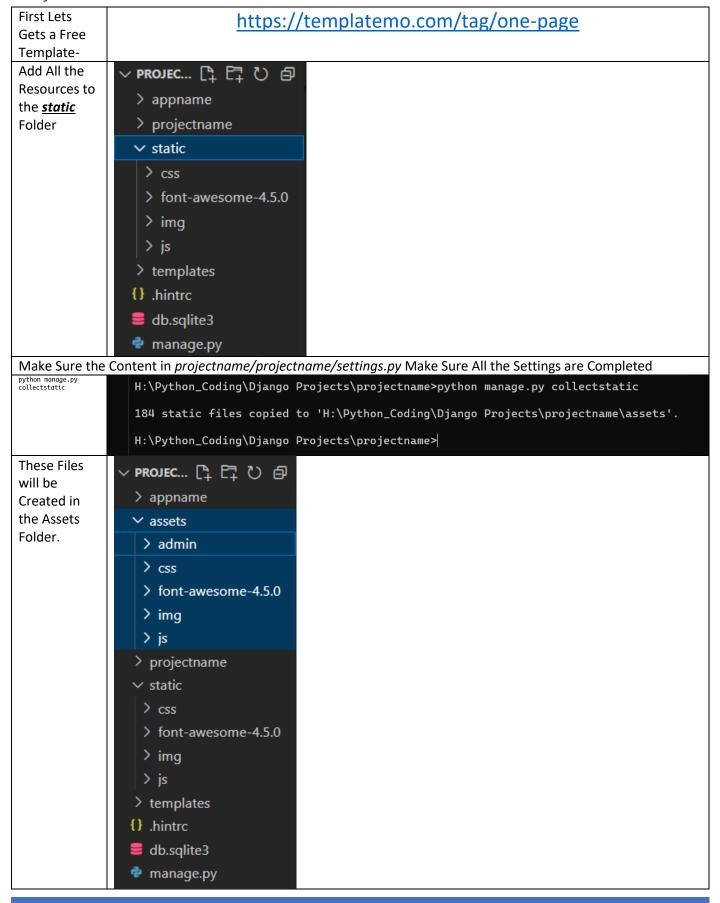
#### Collect Static



## Connect to HTML Page



# Project



#### Django

THEN FIRST	Copy All the HTML Files into the <u>templates</u> Folder
Add the Line	<pre>{% load static %}</pre>
in the First	
Line of all the	
html files	
Change All The	Links of the Resources Folder to route through static in all the html files
EXAMPLE	<pre><link href="projectname/static/css/bootstrap.min.css" rel="stylesheet"/></pre>
CHANGE	
FROM	
ТО	<pre><link href="{% static 'css/bootstrap.min.css' %}" rel="stylesheet"/></pre>
DO THIS TO ALL THE LINKS WHICH ARE INTERNAL (NOT EXTERNAL .com'S)	
FINALLY	Create the Loops in the <i>HTML Files</i> and Load all the Data Through Templates Created Through
	models.py (Do this to Reduce the Number of Lines in the HTML Files).

# Refer

## HTML

https://www.w3schools.com/html/default.asp

https://www.w3schools.com/css/default.asp

https://www.w3schools.com/js/default.asp

https://www.w3schools.com/howto/default.asp

https://www.w3schools.com/bootstrap/bootstrap\_ver.asp

### SQL

https://www.w3schools.com/sql/default.asp