

# AKASH TECHNOLOGIES - SUMMER INTERNSHIP

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## Tasks

- Create 10+ basic Python Programs (Any Programs)
- Django Installation
- Django Directory Structure
- Create App in Django
- Django LifeCycle
- HttpResponse Print
- HTML Page
- Render HTML Page
- Get Post Method
- Layout Extends
- Complete Website development in Django
- Django DB Connection

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## Create 10+ basic Python Programs (Any Programs)

I have already basic python program on GitHub res.

## Django Installation

```
C:\Users\rishi>pip install django
Requirement already satisfied: django in c:\users\rishi\appdata\local\programs\python\python310\lib\site-packages (3.1.13)
Requirement already satisfied: sqlparse>=0.2.2 in c:\users\rishi\appdata\local\programs\python\python310\lib\site-packages (from django) (0.4.1)
Requirement already satisfied: asgiref<4,>=3.2.10 in c:\users\rishi\appdata\local\programs\python\python310\lib\site-packages (from django) (3.3.4)
Requirement already satisfied: pytz in c:\users\rishi\appdata\local\programs\python\python310\lib\site-packages (from django) (2020.5)
C:\Users\rishi>
```

```
C:\Users\rishi>django-admin --version
3.1.13

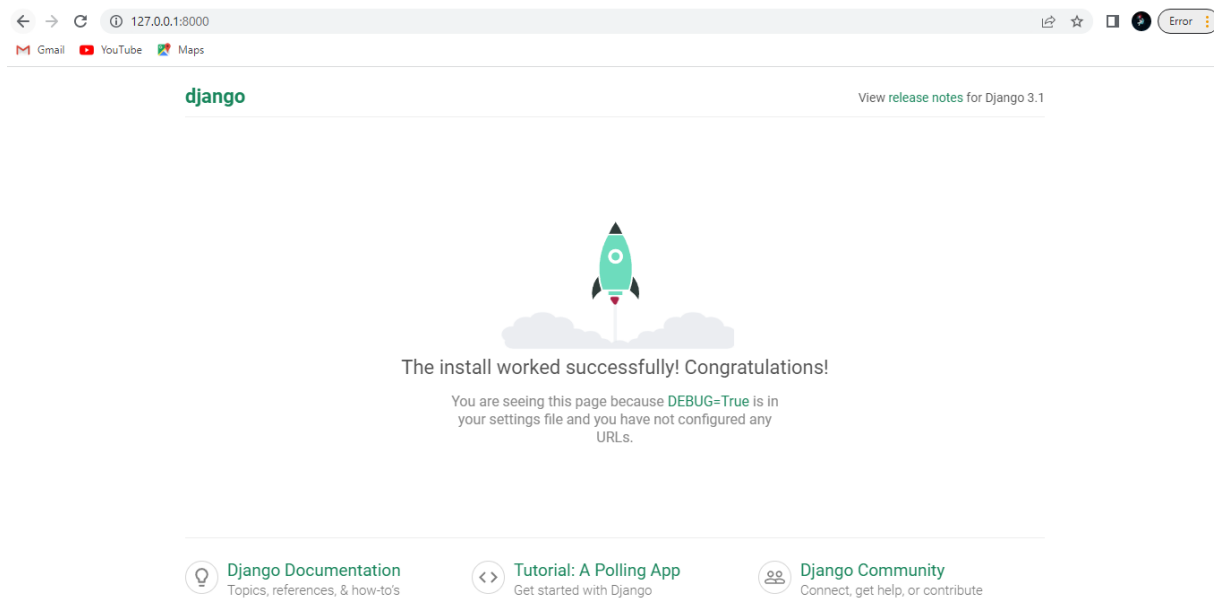
C:\Users\rishi>
```

```
D:\rishi>python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

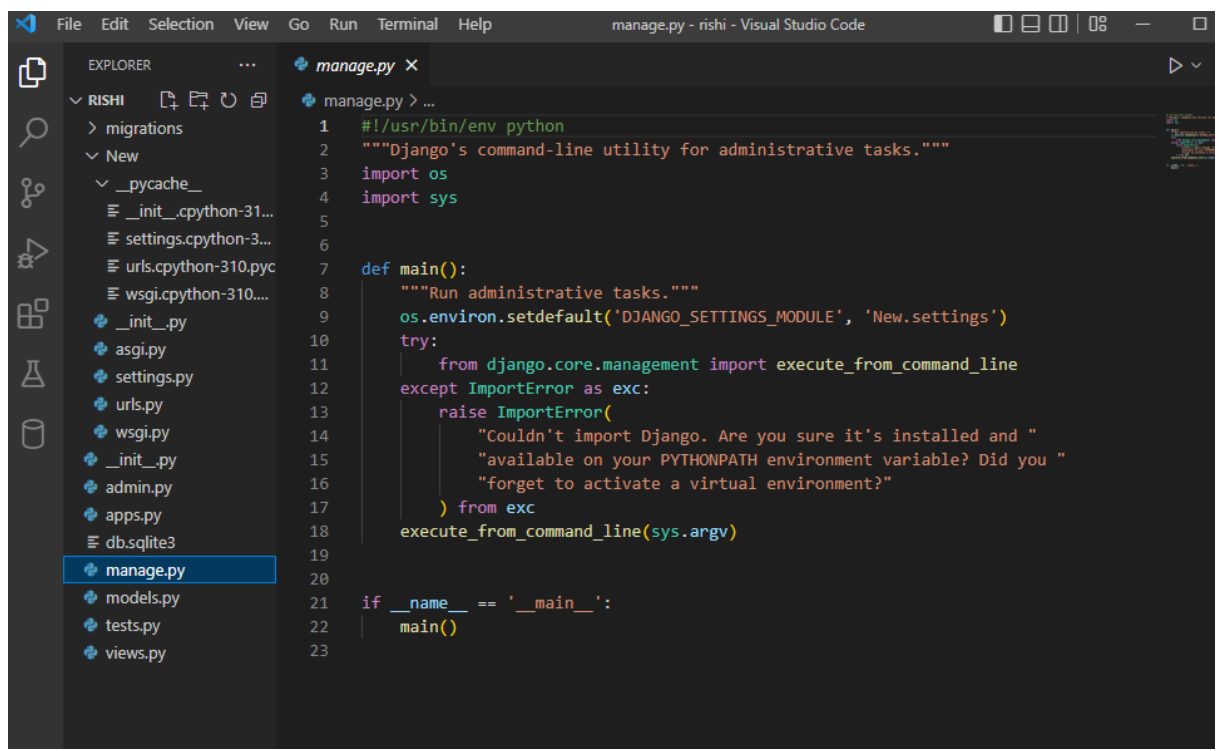
System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not
be ready for deployment. Run 'python manage.py migrate' to apply them.
July 09, 2022 - 11:25:43
Django version 3.1.13, using settings 'New.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

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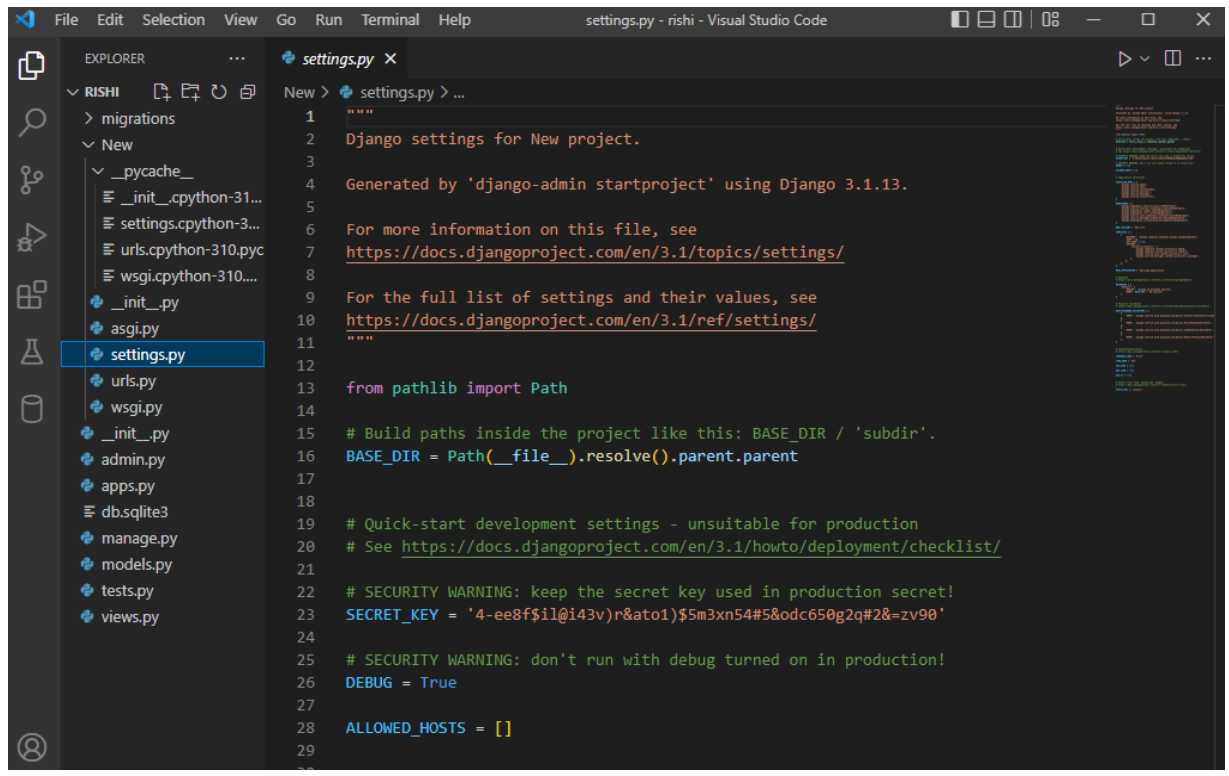


## Django Directory Structure



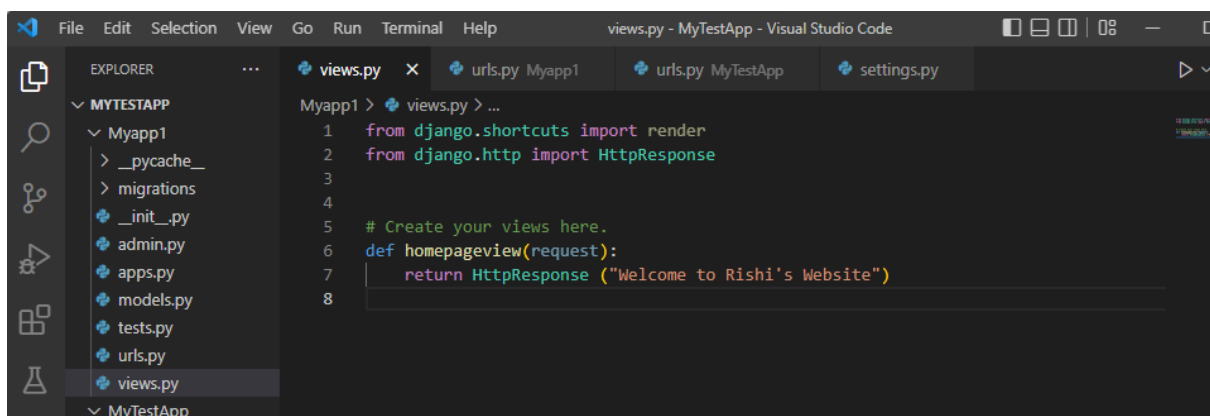
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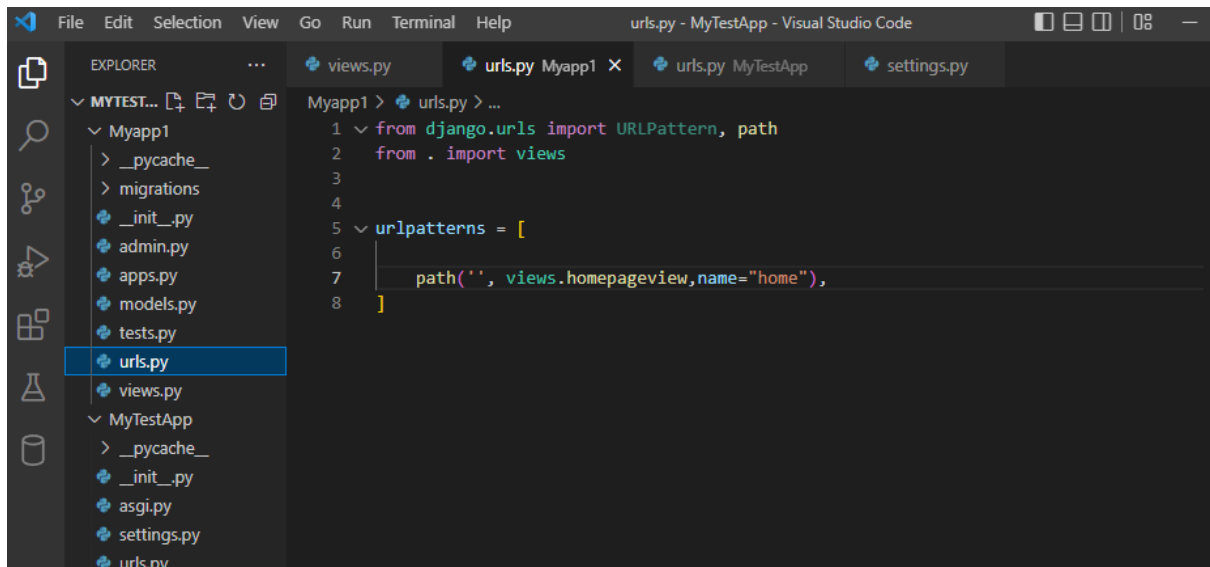
```
1  """
2  Django settings for New project.
3
4  Generated by 'django-admin startproject' using Django 3.1.13.
5
6  For more information on this file, see
7  https://docs.djangoproject.com/en/3.1/topics/settings/
8
9  For the full list of settings and their values, see
10 https://docs.djangoproject.com/en/3.1/ref/settings/
11 """
12
13 from pathlib import Path
14
15 # Build paths inside the project like this: BASE_DIR / 'subdir'.
16 BASE_DIR = Path(__file__).resolve().parent.parent
17
18 # Quick-start development settings - unsuitable for production
19 # See https://docs.djangoproject.com/en/3.1/howto/deployment/checklist/
20
21 # SECURITY WARNING: keep the secret key used in production secret!
22 SECRET_KEY = '4-ee8f$il@i43v)r&ato1)$5m3xn54#5&odc650g2q#2&-zv90'
23
24 # SECURITY WARNING: don't run with debug turned on in production!
25 DEBUG = True
26
27 ALLOWED_HOSTS = []
```

## Create App in Django



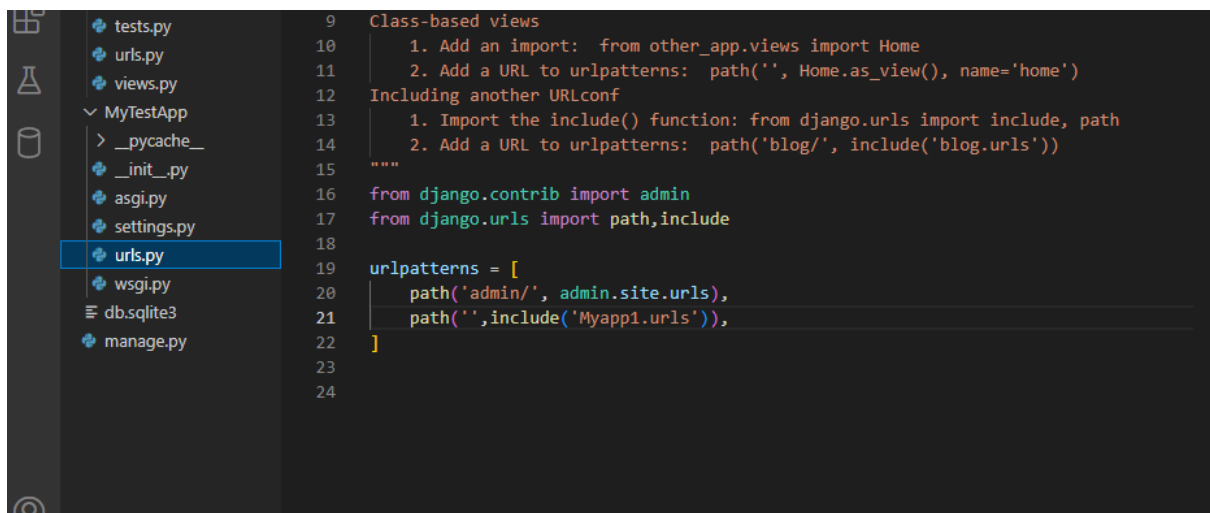
```
1  from django.shortcuts import render
2  from django.http import HttpResponseRedirect
3
4
5  # Create your views here.
6  def homepageview(request):
7      return HttpResponseRedirect("Welcome to Rishi's Website")
8
```

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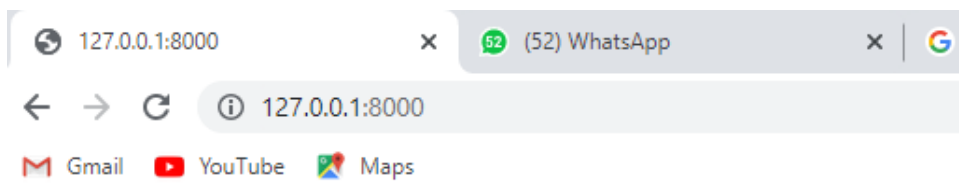
The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left displays the project structure for 'MYTEST...'. Under 'Myapp1', the files listed are: `__pycache__`, `migrations`, `__init__.py`, `admin.py`, `apps.py`, `models.py`, `tests.py`, `urls.py` (selected), and `views.py`. The main editor area shows the content of `urls.py` for 'Myapp1':

```
Myapp1 > urls.py > ...
1 from django.urls import URLPattern, path
2 from . import views
3
4
5 urlpatterns = [
6     path('', views.homepageview, name="home"),
7 ]
8
```



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left displays the project structure for 'MyTestApp'. The files listed are: `__pycache__`, `__init__.py`, `asgi.py`, `settings.py` (selected), `urls.py`, `wsgi.py`, `db.sqlite3`, and `manage.py`. The main editor area shows the content of `urls.py` for 'Myapp1' with class-based views:

```
9 Class-based views
10 1. Add an import: from other_app.views import Home
11 2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
12 Including another URLconf
13 1. Import the include() function: from django.urls import include, path
14 2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
15 """
16 from django.contrib import admin
17 from django.urls import path, include
18
19 urlpatterns = [
20     path('admin/', admin.site.urls),
21     path('', include('Myapp1.urls')),
22 ]
23
24
```

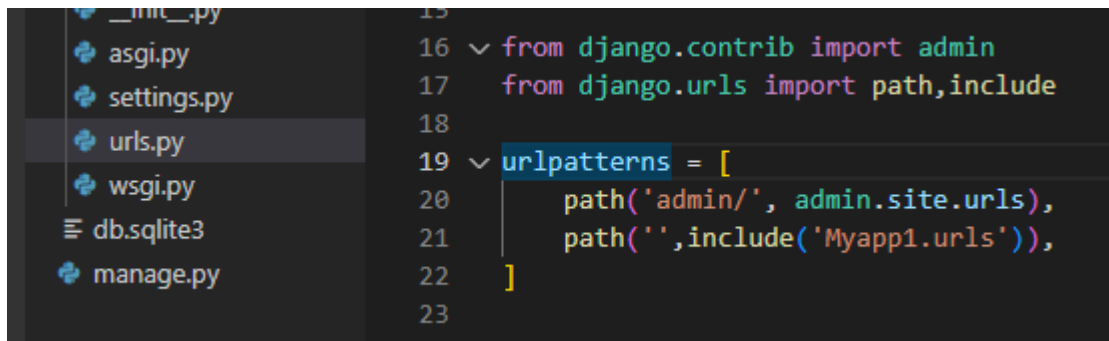


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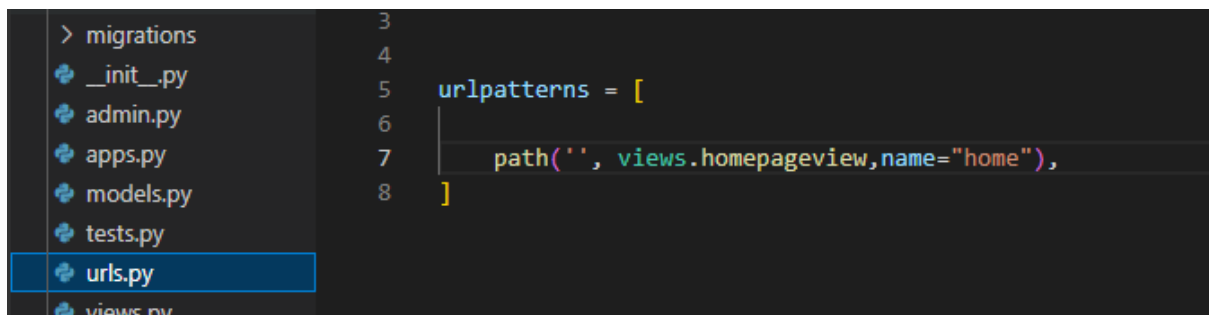
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## Django LifeCycle

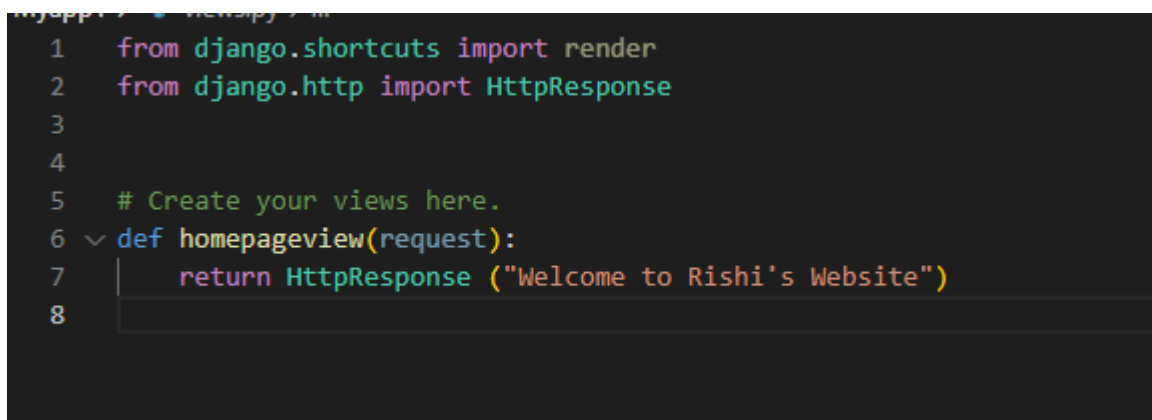
Step 1 :-main url.py

A screenshot of a code editor showing the main url.py file. The left sidebar shows a file explorer with files like \_\_init\_\_.py, asgi.py, settings.py, urls.py (selected), wsgi.py, db.sqlite3, and manage.py. The main editor area shows Python code for Django's URL configuration. Line 16 imports 'admin' from 'django.contrib'. Line 17 imports 'path' and 'include' from 'django.urls'. Line 19 starts a list 'urlpatterns = ['. Line 20 adds 'path('admin/', admin.site.urls)' to the list. Line 21 adds 'path('', include('Myapp1.urls'))' to the list. Line 22 closes the list with ']'.

Step 2:-app url.py

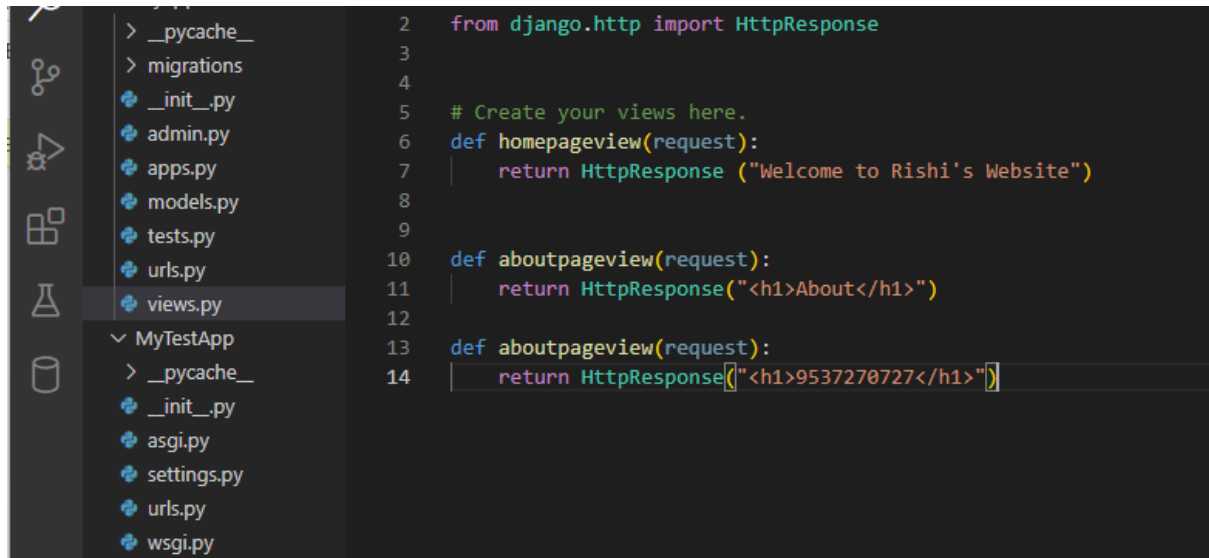
A screenshot of a code editor showing the app's url.py file. The left sidebar shows a file explorer with files like migrations, \_\_init\_\_.py, admin.py, apps.py, models.py, tests.py, urls.py (selected), and views.py. The main editor area shows Python code for the app's URL configuration. Line 5 starts a list 'urlpatterns = ['. Line 7 adds 'path('', views.homepageview, name="home")' to the list. Line 8 closes the list with ']'.

Step 3 :- views.py

A screenshot of a code editor showing the app's views.py file. The main editor area shows Python code for the app's views. Line 1 imports 'render' from 'django.shortcuts'. Line 2 imports 'HttpResponse' from 'django.http'. Line 5 is a comment '# Create your views here.'. Line 6 starts a function definition 'def homepageview(request):'. Line 7 returns 'HttpResponse("Welcome to Rishi's Website")'. Line 8 is an empty line.

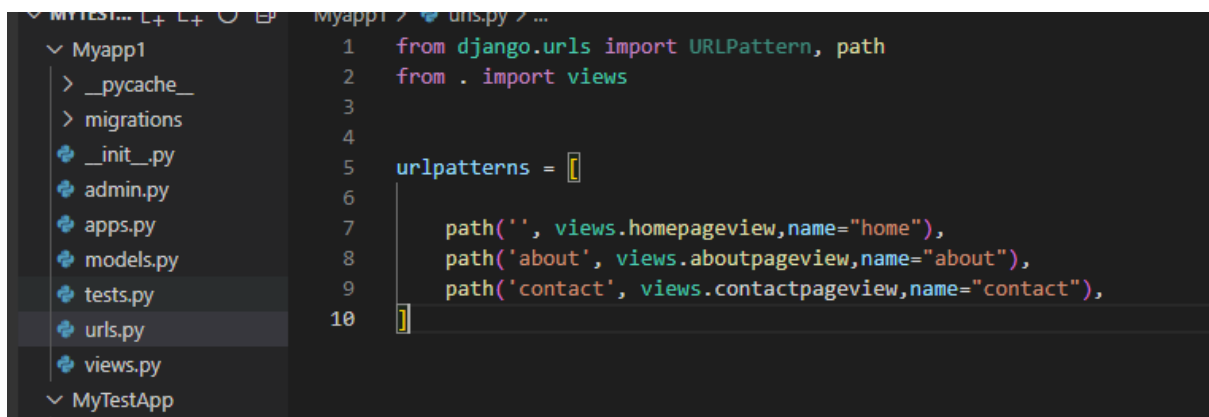
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## HttpResponse Print



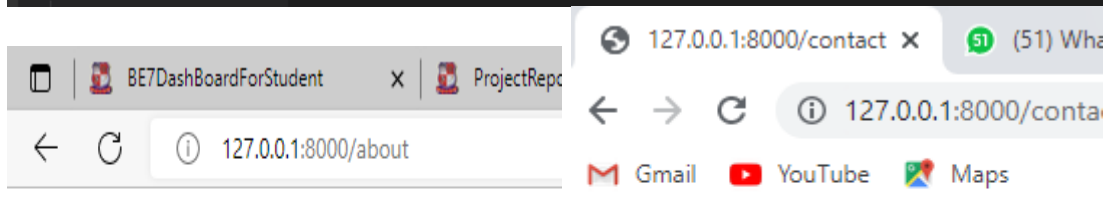
A screenshot of a code editor showing the `views.py` file in a Django project. The left sidebar shows the project structure with `views.py` selected. The main editor area displays the following Python code:

```
2 from django.http import HttpResponse
3
4
5 # Create your views here.
6 def homepageview(request):
7     return HttpResponse("Welcome to Rishi's Website")
8
9
10 def aboutpageview(request):
11     return HttpResponse("<h1>About</h1>")
12
13 def aboutpageview(request):
14     return HttpResponse("<h1>9537270727</h1>")
```



A screenshot of a code editor showing the `urls.py` file in a Django project. The left sidebar shows the project structure with `urls.py` selected. The main editor area displays the following Python code:

```
1 from django.urls import URLPattern, path
2 from . import views
3
4
5 urlpatterns = []
6
7 path('', views.homepageview, name="home"),
8 path('about', views.aboutpageview, name="about"),
9 path('contact', views.contactpageview, name="contact"),
10
```



About

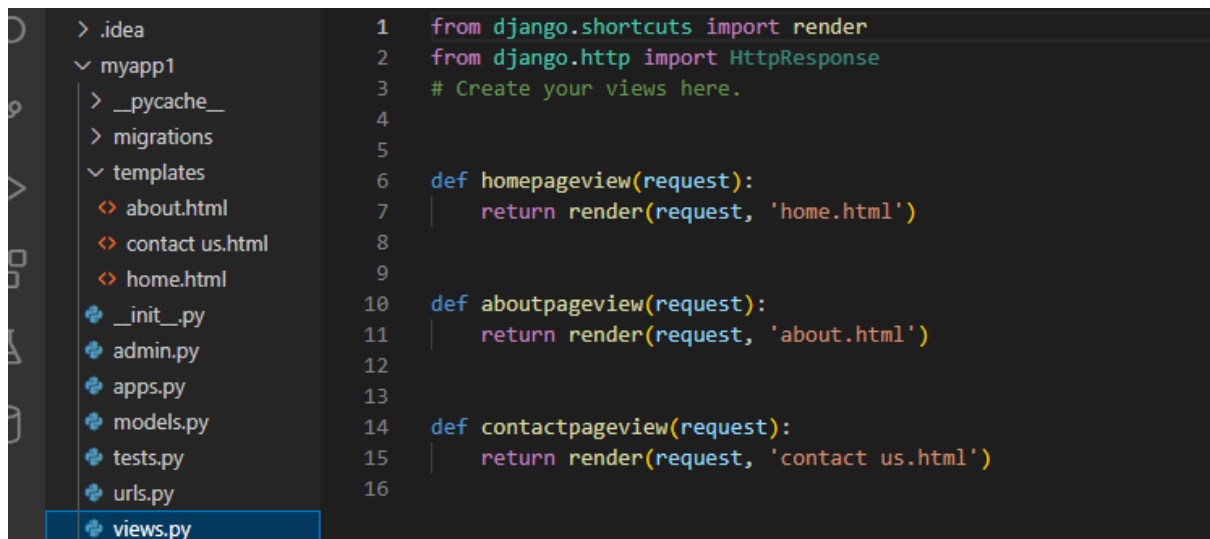
9537270727

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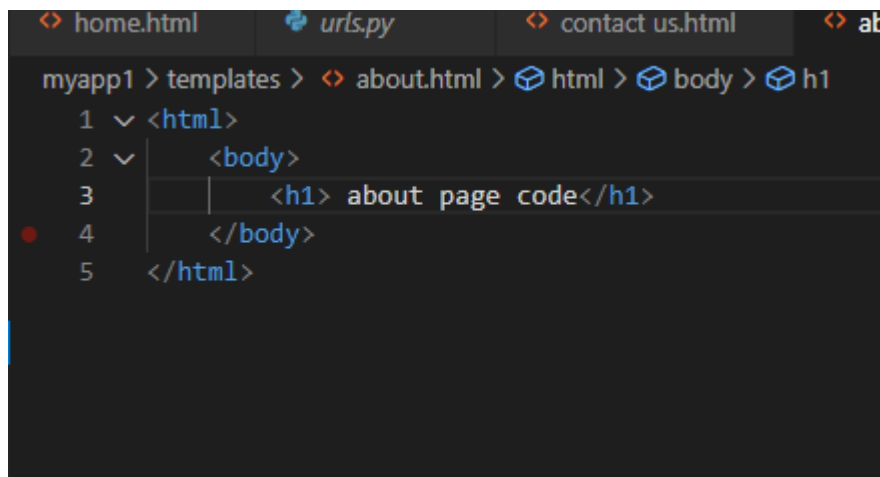
## HTML Page

## Render HTML Page



This screenshot shows the Django project structure in the left sidebar and the corresponding code in `views.py`. The sidebar shows the `myapp1` directory containing `templates` (with `about.html`, `contact us.html`, and `home.html`) and `views.py`. The `views.py` file contains the following code:

```
1 from django.shortcuts import render
2 from django.http import HttpResponse
3 # Create your views here.
4
5
6 def homepageview(request):
7     return render(request, 'home.html')
8
9
10 def aboutpageview(request):
11     return render(request, 'about.html')
12
13
14 def contactpageview(request):
15     return render(request, 'contact us.html')
16
```



This screenshot shows the Django template editor for `about.html`. The breadcrumb navigation at the top indicates the path: `myapp1 > templates > about.html > html > body > h1`. The template code is as follows:

```
1 <html>
2   <body>
3     <h1> about page code</h1>
4   </body>
5 </html>
```

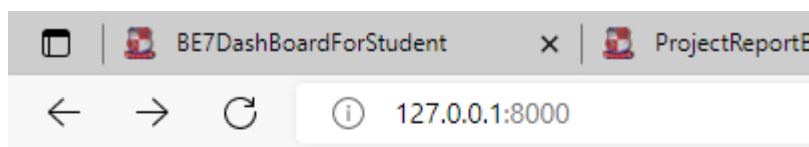


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```
<> home.html  urls.py  <> contact us.html X  <> about
myapp1 > templates > <> contact us.html > html > body > h1
1  <html>
2  |   <body>
3  |   |   <h1> contact us page code</h1>
4  |   |   </body>
5  |   </html>
```

```
myapp1 > templates > <> home.html > html > body > h1
1  | <html>
2  | |   <body>
3  | | |   <h1>
4  | | |   |   Home Page code
5  | | |   </h1>
6  | |   </body>
7  | </html>
```



| [Home](#) [about](#) [Contact us](#)

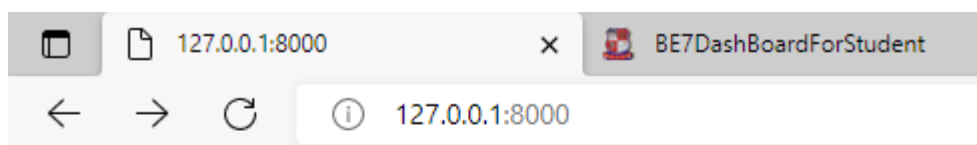
## Home Page code

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```
5
6  def homepageview(request):
7      return render(request, 'home.html',{'name':'rishi'})
8
9
```

```
<> home.html X  views.py  <> contact us.html  <> abc
myapp1 > templates > <> home.html > html > body > h1
1  <html>
2      <body>
3          <a href="/">Home</a>
4          <a href="/about">about</a>
5          <a href="/contact">Contact us</a>
6      <h1>
7          hi {{name}} welcome to my website
8      </h1>
9      </body>
10 </html>
```



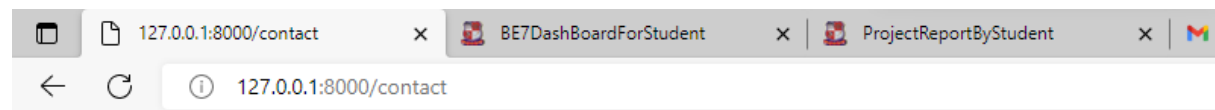
| [Home](#) [about](#) [Contact us](#)

**hi rishi welcome to my website**

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## Get Post Method

```
yapp1 > templates > contact us.html > html > body > h1 > form > input
1  <html>
2  <body>
3      <h1>
4          contact
5          <form method="get">
6              number 1 : <input type="text" name="txt1" placeholder="Enter no.1"
7                          required/>
8              number 2 : <input type="text" name="txt1" placeholder="Enter no.1"
9                          required/>
10             <input type="submit"/>
11         </form>
12     </h1>
13 </body>
14
15 </html>
```



**contact**

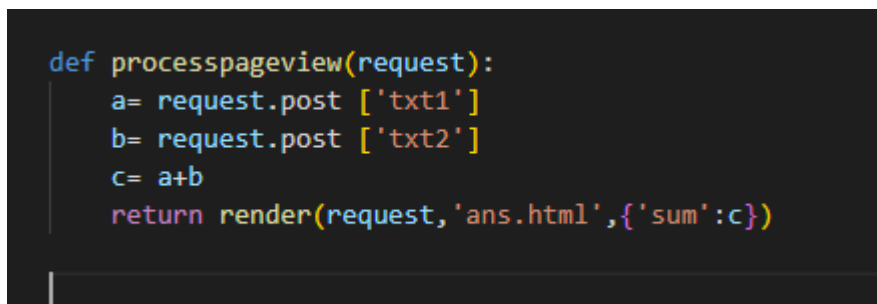
**number 1 :**  **number 2 :**

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The screenshot shows an IDE with a file explorer on the left and a code editor on the right. The file explorer shows a project named 'MYFIRS...' with a 'templates' folder containing 'about.html', 'ans.html', 'contact us.html', and 'home.html'. The 'contact us.html' file is selected. The code editor shows the following HTML code:

```
1 <html>
2 <body>
3   <h1>
4     contact
5     <form method="post" action="/form-process">
6       {% csrf_token %}
7       number 1 : <input type="text" name="txt1" placeholder="Enter no.1"
8         required/>
9       number 2 : <input type="text" name="txt1" placeholder="Enter no.2"
10        required/>
11       <input type="submit"/>
12     </form>
13   </h1>
14 </body>
15 </html>
```



The screenshot shows a Python function named 'processpageview' in a code editor. The function takes a 'request' object as an argument and returns a rendered HTML response. The code is as follows:

```
def processpageview(request):
    a= request.post ['txt1']
    b= request.post ['txt2']
    c= a+b
    return render(request, 'ans.html', {'sum':c})
```



**contact**

**number 1 :**  **number 2 :**

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## Layout Extends



```
base.html x  ans.html  urls.py  models.py
myapp1 > templates > base.html > html > body > table > tr >
1  <html>
2  <body>
3  <table border="1">
4      <tr>
5          <td>
6              <center>
7                  <h1>
8                      RishiPatel.com
9                  </h1>
10             </center>
11         </td>
12     </tr>
13 </tr>
14 <tr>
15     <td>
16         <a href="#">Home</a>
17         <a href="#">about</a>
18         <a href="#">contact</a>
19     </td>
20 </tr>
21 <tr>
22     <td>
23         <!--content-->
24         {% block mycontent %}
25         {% endblock %}
26     </td>
27 </tr>
28
29 </table>
30 </body>
31 </html>
```

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```
myapp1 > templates > <> home.html > ...
1  {% extends 'base.html' %}
2  {% block mycontent %}
3      <h1>
4          hi {{name}} welcome to my website
5      </h1>
6  {% endblock %}
```

