

Django Based Web Application

Part - II

CBSE Syllabus Based

Class -12



CHAPTER -15 CS

CHAPTER-9 IP

By-

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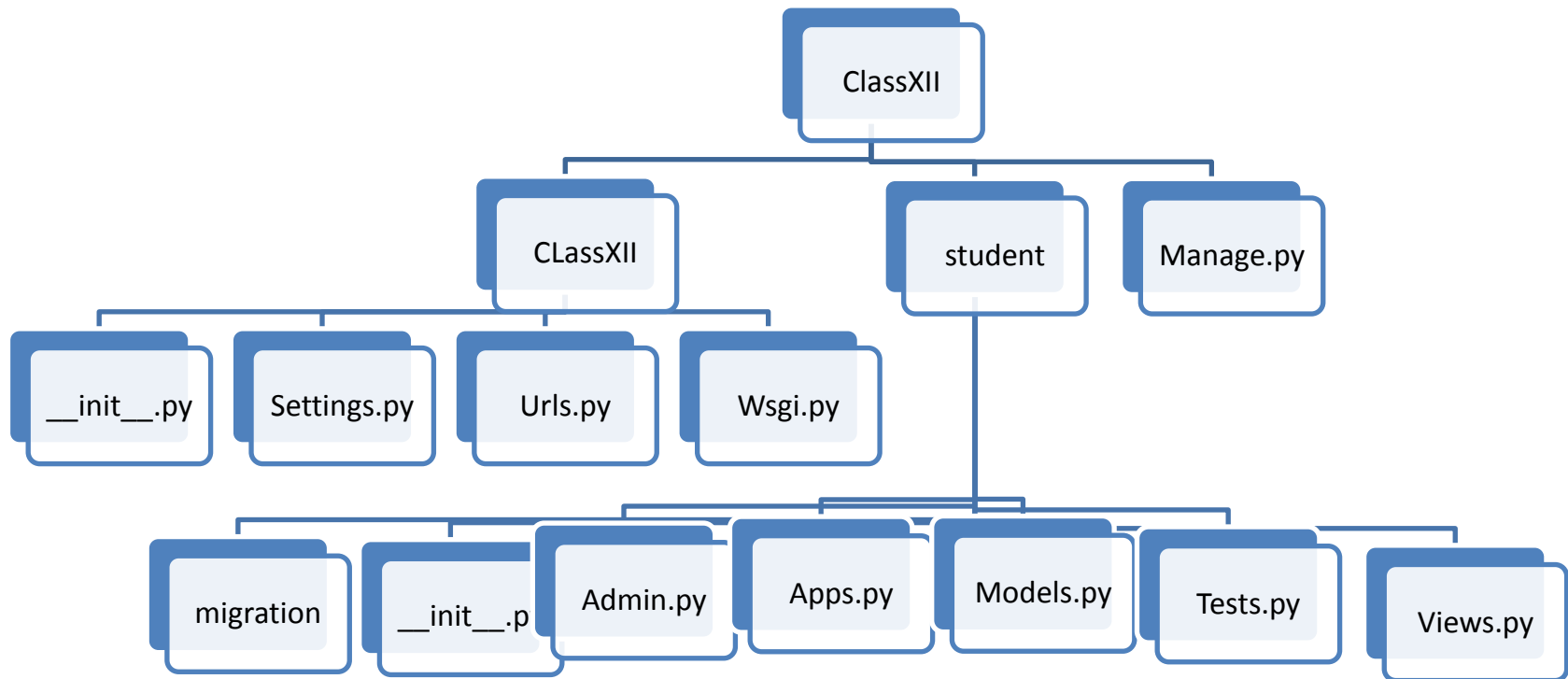
Blog- www.pythontrends.wordpress.com

YouTube Channel : “Python Trends”

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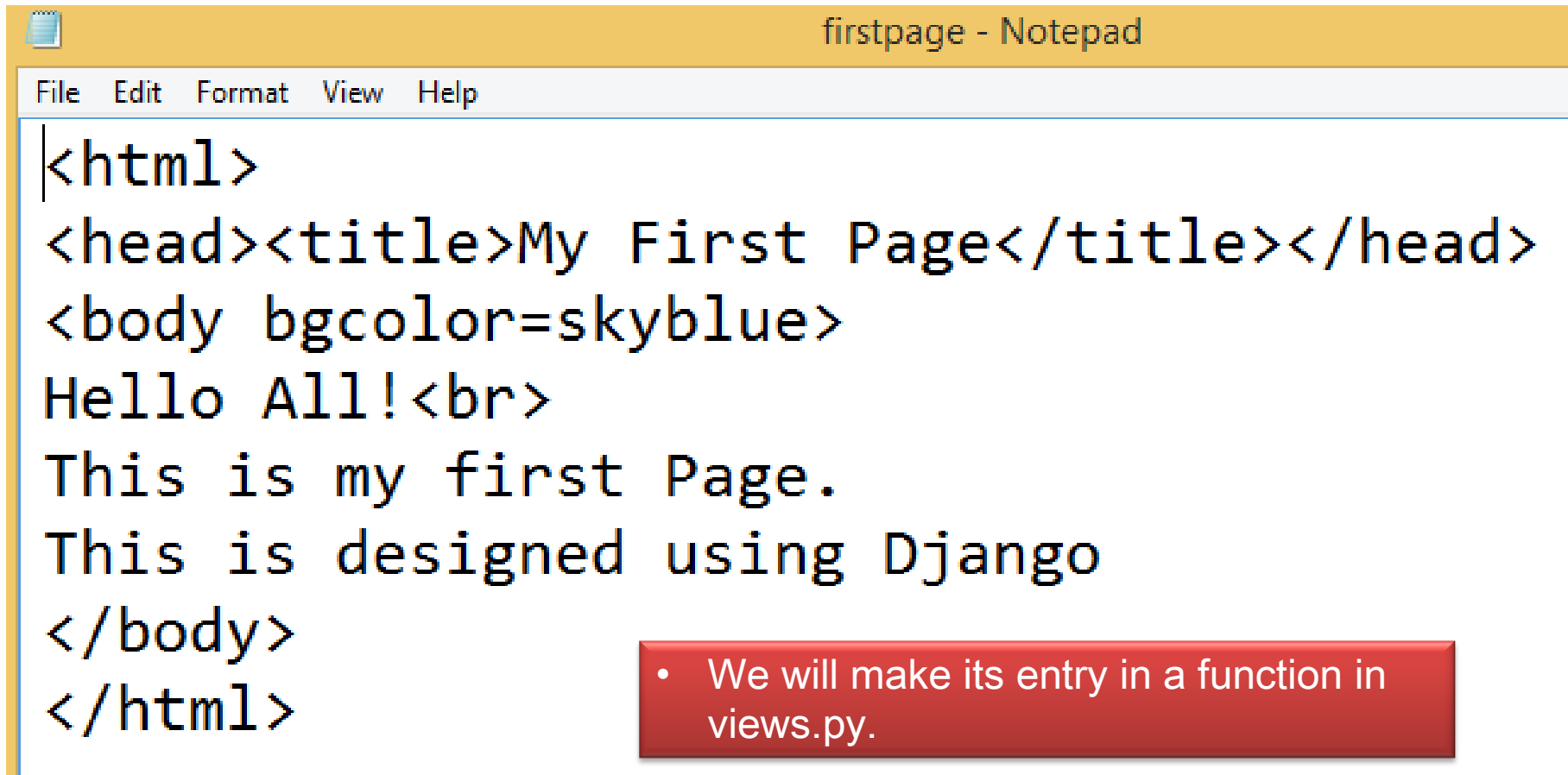
What we learnt in Part-I?

- First we will take a review of what we learnt in first part.
- We learnt creation of Project and app.
- Registering App in to Project.
- Generate webpages in Templates and add an entry in views.py.
- Setting path in url.py.
- Running Django server.
- Opening of pages on web browser by giving URL.



Creation and Saving of Webpage

- Create a webpage firstpage.html in Template folder.

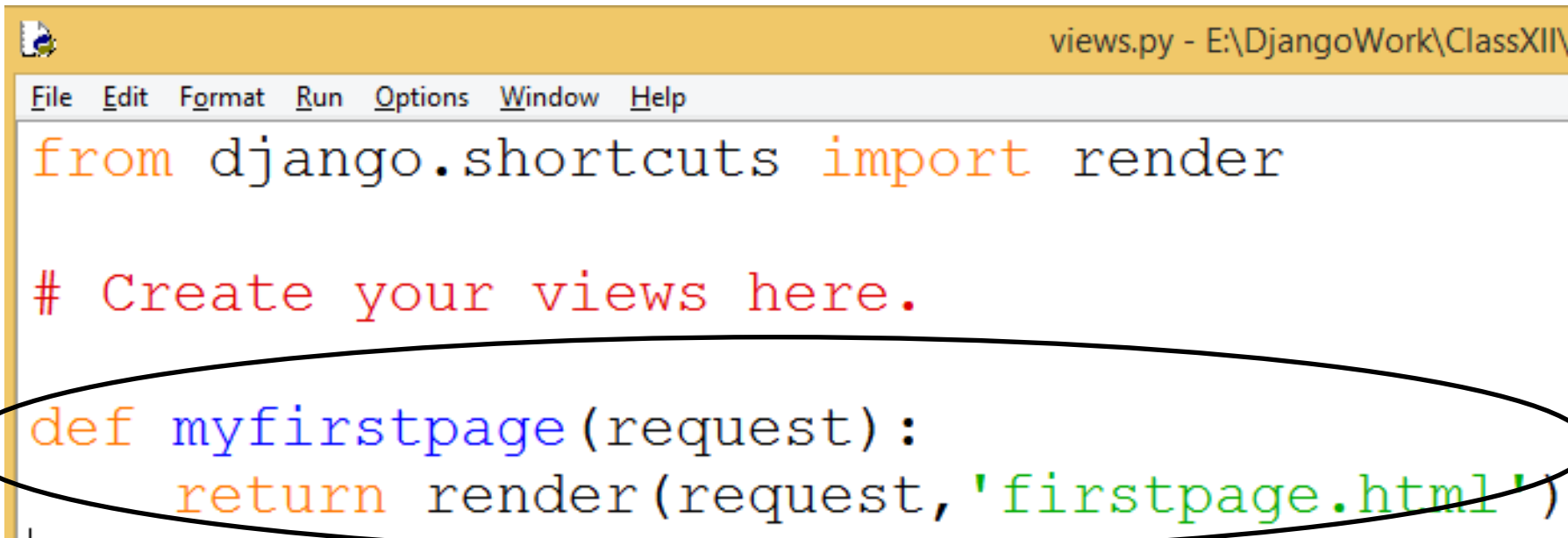


```
<html>
<head><title>My First Page</title></head>
<body bgcolor=skyblue>
Hello All!<br>
This is my first Page.
This is designed using Django
</body>
</html>
```

- We will make its entry in a function in views.py.

Writing logic in Views.py

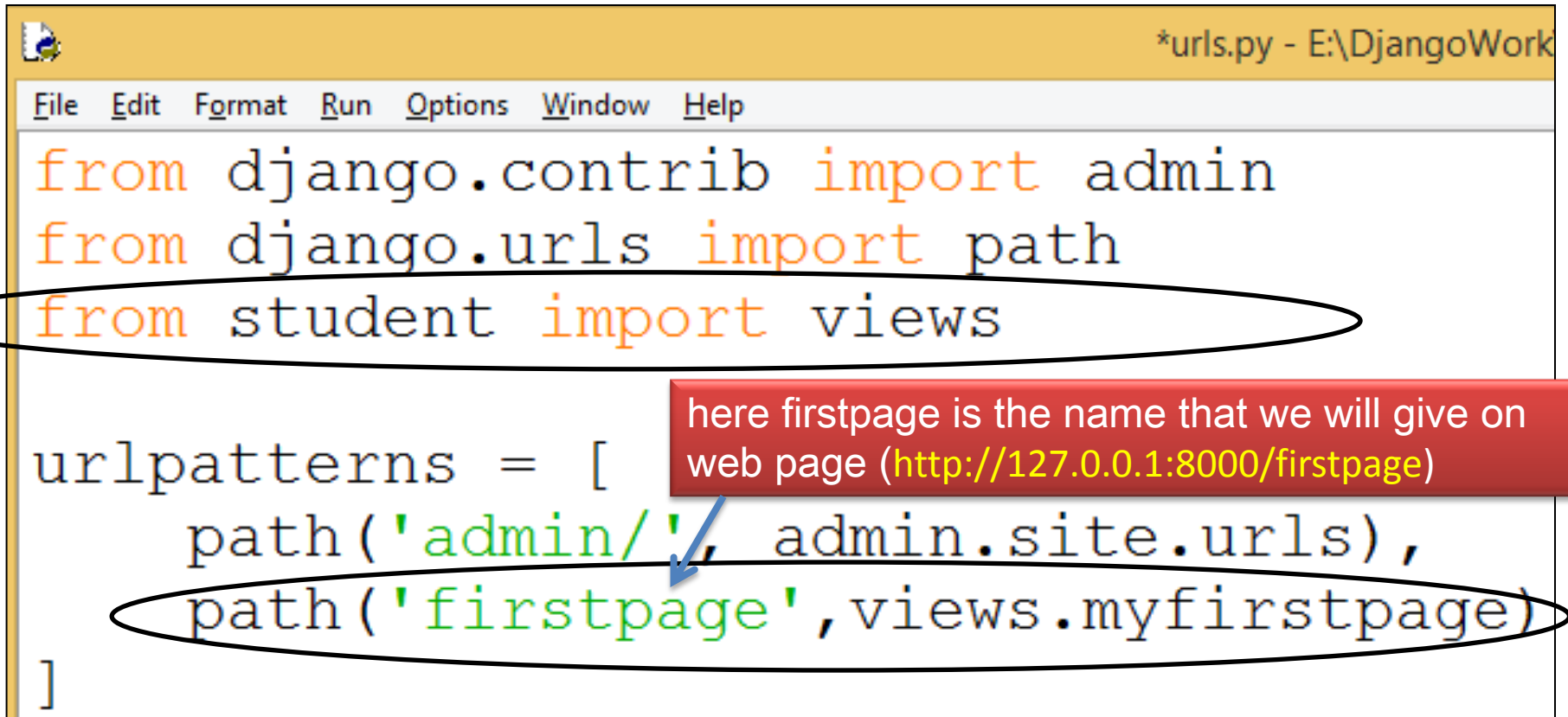
- Our next step is to write function for html page in views.py.
- In this file, we used to keep all those function which we want to execute.
- Views works for rendering a page. For this, from student folder, open the views.py in IDLE and create a view i.e. we will write a function which will render and return the existing html file.



```
views.py - E:\DjangoWork\ClassXII\
File Edit Format Run Options Window Help
from django.shortcuts import render
# Create your views here.
def myfirstpage(request):
    return render(request, 'firstpage.html')
```

Setting views in Urls.py

- Now we will access inner project folder (ClassXII) and add following code in urls.py.



```
*urls.py - E:\DjangoWork
File Edit Format Run Options Window Help
from django.contrib import admin
from django.urls import path
from student import views

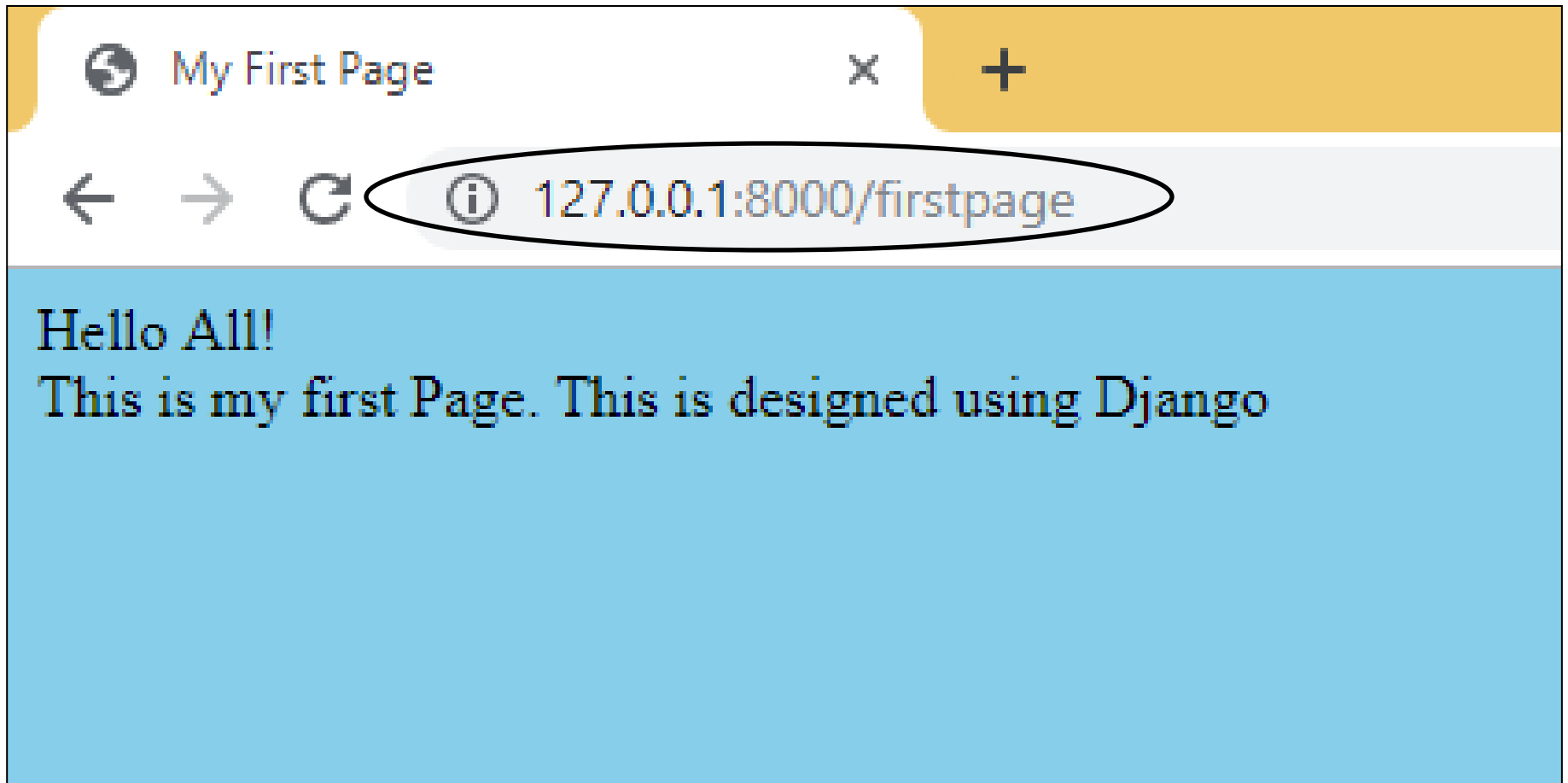
urlpatterns = [
    path('admin/', admin.site.urls),
    path('firstpage', views.myfirstpage)
]
```

here firstpage is the name that we will give on web page (<http://127.0.0.1:8000/firstpage>)

- Now save the file.
- **And run django server.**
- `E:\DjangoWork\ClassXII>manage.py runserver`

Displaying Webpage

- At last, we will open the web browser and will write the url of our html page.

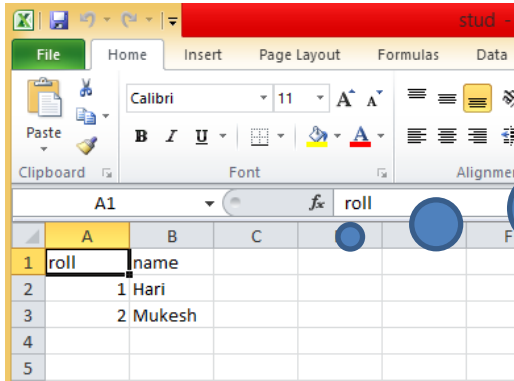


Django Based web Applications Part -2

- In this part we will learn to add various components on a web page and also learn the method to send the data from webpage to server.
- Use of Get Method and POST Method.
- Saving data inputted on a Webpage to a csv file.
- Little DTL (Django Template Language) for this purpose.
- We will develop a small application for this.

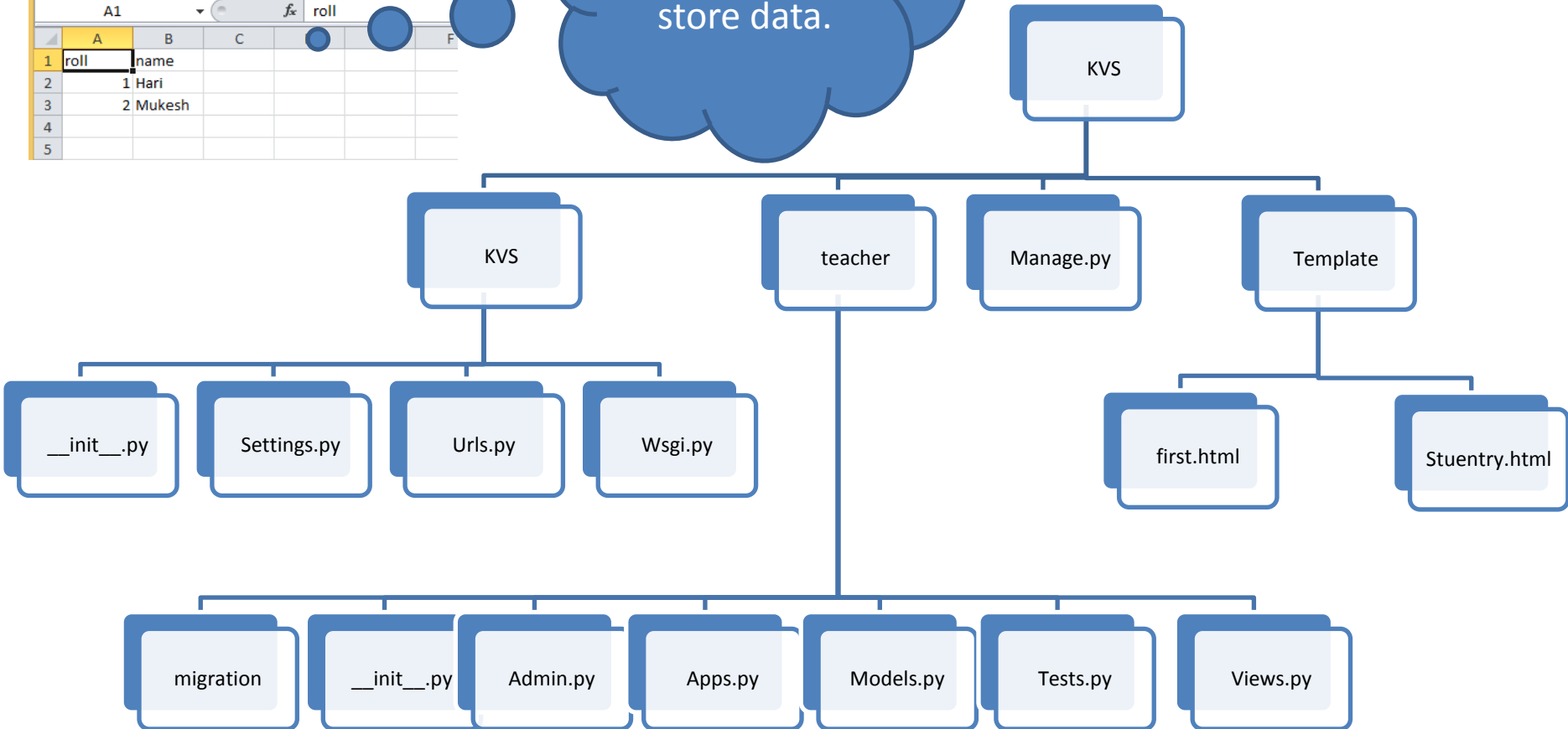
Example

- Lets take an example.



roll	name
1	Hari
2	Mukesh

We will use stud.csv file to store data.



Views.py file

```
from django.shortcuts import render
import pandas as pd
from django.http import HttpResponseRedirect
import csv

# Create your views here.
def show(request):
    lst=[x for x in range(2,20,2)]
    df=pd.read_csv("E:\\DjangoWork\\stud.csv")

    return render(request, 'first.html', {"even":lst, "name":df})

def stentry(request):
    if request.method=='POST':
        stu_dict=request.POST
        with open("E:\\DjangoWork\\stud.csv", 'a') as st:
            Val=csv.writer(st)
            L=[]
            for x in stu_dict:
                if x=="rollno":
                    L.append(stu_dict[x])
                if x=="name":
                    L.append(stu_dict[x])
            Val.writerow(L)
    return render(request, 'stentry.html')
```

first.html
file will
open by
this.

stentry.html
file will open by
this.

urls.py file

```
urlpatterns = [  
    path('admin/', admin.site.urls),  
    path('first', views.show),  
    path('stuentry', views.stuentry),  
]
```

runserver

```
E:\DjangoWork\KVS>manage.py runserver  
Watching for file changes with StatReloader  
Performing system checks...  
  
System check identified no issues (0 silenced).  
  
You have 17 unapplied migration(s). Your project may not work properly  
without applying the migrations for app(s): admin, auth, contenttypes, sessions.  
Run 'python manage.py migrate' to apply them.  
September 15, 2019 - 10:42:18  
Django version 2.2.3, using settings 'KVS.settings'  
Starting development server at http://127.0.0.1:8000/  
Quit the server with CTRL-BREAK.
```

first.html file

```
<html>
<head><title>Welcome to KVS</title></head>
<body bgcolor=skyblue>
  <h1> This is first Django Project.</h1>
  {{even}}
  {% for a in even %}
    {{a}}
    <br>
  {% endfor %}
  {{name}}
  <a href="http://127.0.0.1:8000/stuentry">
  <h1>Click Here to Add New Students.</h1>
  </a>
</body>
</html>
```

See these names carefully. These are the names which were sent from views via dictionary.

DTL syntax

For Navigation

stuenytry.html file

```
<html>
  <head><title>Student Entry Form</title></head>
  <body bgcolor=skyblue>
    <h1> Enter the details</h1>

    <form action="#" method="POST">
      {%csrf_token%}
      Roll: &nbsp; <input type="text" name="rollno"> <br><br>
      Name: &nbsp; <input type="text" name="name"> <br><br>
      <input type="submit" value="SUBMIT"> <br><br>
    </form>
    <a href="http://127.0.0.1:8000/first">
      <h1>Click Here to view the details of students.
      </h1>
    </a>
  </body>
</html>
```

Opening First.html in browser

Welcome to KVS

x

+



127.0.0.1:8000/first

This is first Django Project.

[2, 4, 6, 8, 10, 12, 14, 16, 18] 2

4

6

8

10

12

14

16

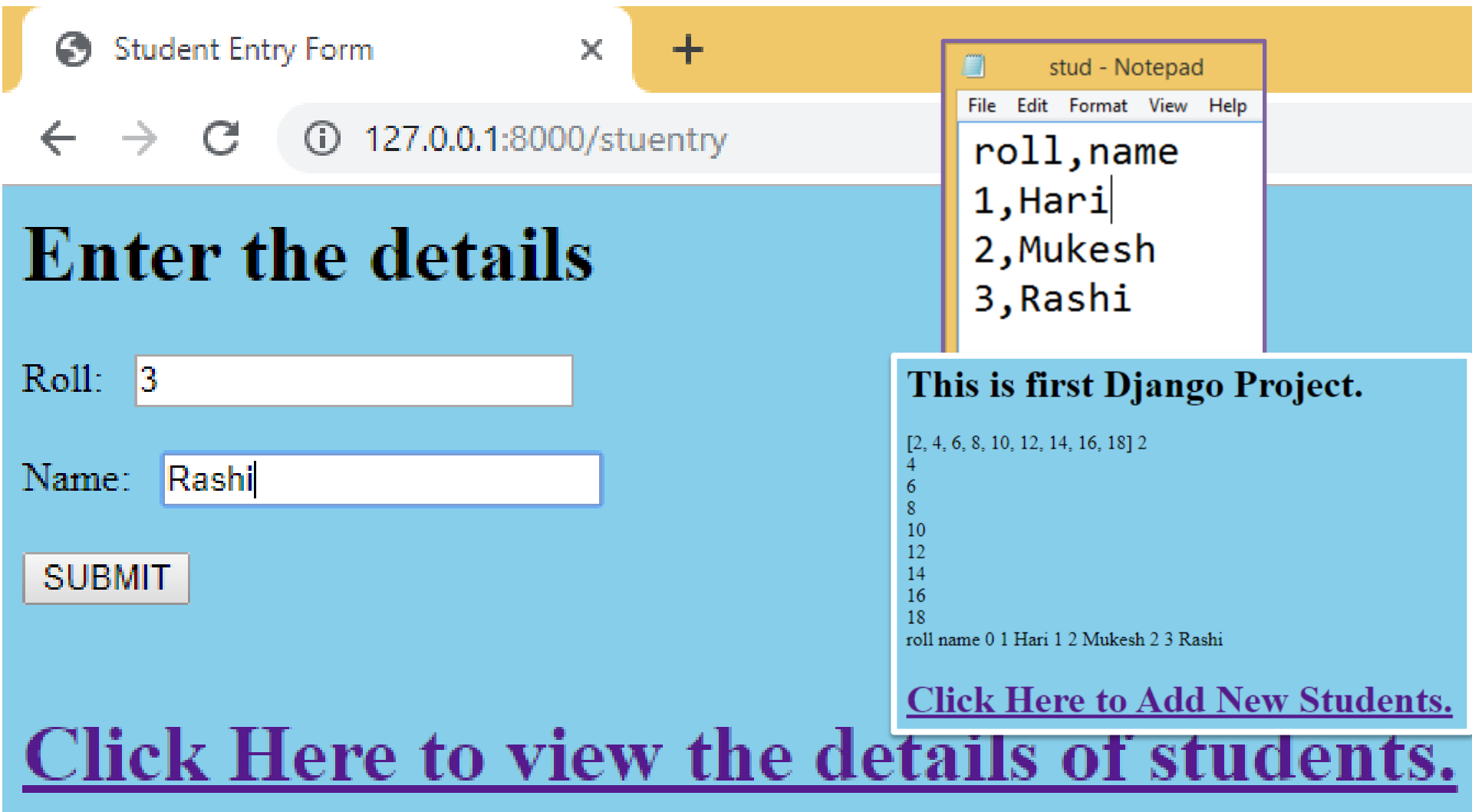
18

roll name 0 1 Hari 1 2 Mukesh

This data is sent by show() of views.py , one by even variable and other by name variable.

[Click Here to Add New Students.](#)

Opening stuentry.html in browser



The screenshot shows a web browser window with a single tab titled "Student Entry Form". The address bar displays "127.0.0.1:8000/stuentry". The main content area has a light blue background and contains the following elements:

- A large heading: "Enter the details"
- A form with two input fields: "Roll:" with the value "3" and "Name:" with the value "Rashi".
- A "SUBMIT" button.
- A link at the bottom: "[Click Here to view the details of students.](#)"

Overlaid on the right side of the browser window is a Notepad window titled "stud - Notepad". It contains the following text:

```
roll,name
1,Hari
2,Mukesh
3,Rashi
```

Below the Notepad window, there is a text box containing the following text:

This is first Django Project.

```
[2, 4, 6, 8, 10, 12, 14, 16, 18] 2
4
6
8
10
12
14
16
18
roll name 0 1 Hari 1 2 Mukesh 2 3 Rashi
```

Below this text box is another link: "[Click Here to Add New Students.](#)"

What is HTTP?

- http is a collection of the protocols which carried out the communication between client and server.
- They work as request-response protocol between client and server.
- A web browser is a client and any application which host the website can be a server.
- Two methods are used for this GET and POST.
- We have used both the methods in this chapter.

Django Template Language

- In this chapter we have used some DTL.
- For detailed information of DTL, click the following links-

<https://docs.djangoproject.com/en/2.2/ref/templates/language/>

https://www.tutorialspoint.com/django/django_template_system.htm

Thank you

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