1. Start eclipse
2. Create Django Project
   1. File -> New -> Other -> Search for Django -> PyDev -> PyDev Dango Project -> Next -> give project name say “dj6” -> select grammer version say “3.6” -> select interpreter (if not showing then configure interpreter to the python installation you want to use) -> Next -> Next -> Finish
3. Create an application (commonly known as module in other language)
   1. Right click on project say “dj6” -> Django -> Create Application
   2. Give name of Django app say “college” -> Ok
   3. Right click on project say “dj6” -> Refresh
4. Install Django-registration-redux for registration module:
   1. Go to command prompt and type following command

pip install Django-registration-redux

1. Create Model Class for your tables inside app (module) -> inside models.py
   1. Go inside college folder then open models.py:

from django.db import models

from django.contrib.auth.models import User

from django.db.models.deletion import CASCADE

# Create your models here.

class Branch(models.Model):

name = models.CharField(max\_length=100)

hod = models.CharField(max\_length=100)

def \_\_str\_\_(self):

return "%s (%s)" % (self.name, self.hod)

class Profile(models.Model):

user = models.OneToOneField(to=User, on\_delete=CASCADE)

name = models.CharField(max\_length=100)

branch = models.ForeignKey(to=Branch, on\_delete=CASCADE, null=True)

def \_\_str\_\_(self):

return "%s (%s)" % (self.name, self.branch)

# Create your models here.

class Notice(models.Model):

msg = models.TextField()

cr\_date = models.DateTimeField(auto\_now\_add = True)

subject = models.CharField(max\_length=100)

branch = models.ForeignKey(to=Branch, on\_delete=CASCADE, null=True, blank=True)

def \_\_str\_\_(self):

return self.subject

1. Go inside settings.py and add college as INSTALLED\_APPS
   1. Go to the folder named same as your project name say “dj6”
   2. Open file settings.py

INSTALLED\_APPS = [

'django.contrib.admin',

'django.contrib.auth',

'django.contrib.contenttypes',

'django.contrib.sessions',

'django.contrib.messages',

'django.contrib.staticfiles',

'registration',

'college',

]

….

TIME\_ZONE = 'Asia/Kolkata'

…..

1. Inside settings.py add following code at the end

ACCOUNT\_ACTIVATION\_DAYS=3

LOGIN\_REDIRECT\_URL = "/"

EMAIL\_HOST= 'smtp.gmail.com'

EMAIL\_HOST\_USER= 'ec.smtp.test2@gmail.com'

EMAIL\_HOST\_PASSWORD= 'anandgupta'

EMAIL\_PORT= 587

EMAIL\_USE\_TLS= True

1. Register your model for admin website:
   1. Inside your app say “college” there will be a file named admin.py
   2. Write the following code inside it:

from django.contrib import admin

from college.models import Notice, Branch, Profile

admin.site.register(Branch)

admin.site.register(Profile)

# Register your models here.

class NoticeAdmin(admin.ModelAdmin):

list\_filter = ["cr\_date", "branch"]

list\_display = ["subject", "cr\_date"]

search\_fields = ["subject", "msg"]

admin.site.register(Notice, NoticeAdmin)

1. Go to urls.py inside folder with same name as your project name say “dj6” and write code:

from django.contrib import admin

from django.urls import path

from django.urls.conf import include

from django.views.generic.base import RedirectView

urlpatterns = [

path('admin/', admin.site.urls),

path('college/', include('college.urls')),

path('accounts/', include('registration.backends.default.urls')),

path('', RedirectView.as\_view(url="college/")),

]

1. Create/copy urls.py inside your app (module) say “college” and write following code:

from django.contrib import admin

from django.urls import path

from django.urls.conf import include

from college import views

from django.views.generic.base import RedirectView

urlpatterns = [

path('home/', views.HomeView.as\_view()),

path('notice/', views.NoticeListView.as\_view()),

path('profile/edit/<int:pk>', views.ProfileUpdate.as\_view( success\_url="/college/home")),

path('notice/<int:pk>', views.NoticeDetailView.as\_view()),

path('', RedirectView.as\_view(url="home/")),

]

1. Go inside your app say “college” and open views.py and write following code:

from django.shortcuts import render

from django.views.generic.list import ListView

from django.utils.decorators import method\_decorator

from django.contrib.auth.decorators import login\_required

from django.views.generic.detail import DetailView

from college.models import Notice, Profile

from django.db.models import Q

from django.views.generic.base import TemplateView

from django.views.generic.edit import UpdateView

# Create your views here.

class HomeView(TemplateView):

template\_name = "college/index.html"

@method\_decorator(login\_required, name="dispatch")

class NoticeListView(ListView):

model = Notice

def get\_queryset(self):

si = self.request.GET.get('si')

if si==None:

si=''

if self.request.user.is\_superuser:

return Notice.objects.filter(Q(msg\_\_icontains = si) | Q(subject\_\_icontains = si)).order\_by('-id')

else:

return Notice.objects.filter(Q( branch\_\_isnull=True) | Q(branch = self.request.user.profile.branch )).filter(Q(msg\_\_icontains = si) | Q(subject\_\_icontains = si)).order\_by('-id')

@method\_decorator(login\_required, name="dispatch")

class NoticeDetailView(DetailView):

model = Notice

@method\_decorator(login\_required, name="dispatch")

class ProfileUpdate(UpdateView):

model = Profile

fields = ["name", "branch"]

1. Go to urls.py inside app say “college” and type space at the end and save just to refresh!! Tough not necessary
2. Inside your app say “college” create a folder named templates:
   1. Right click on college -> New -> Folder -> type templates -> Finish
3. Inside templates folder create a html fine named base.html and write following code:
   1. Right click on templates -> New -> Other -> Search for html -> html file -> Next -> base.html -> Finish

<!DOCTYPE html>

<html>

<head>

<meta charset="ISO-8859-1">

<title>Mats</title>

</head>

<body>

<h1>Menu Etc</h1>

<a href="/college/home">Home</a>

{% if user.is\_superuser %}

<a href="/admin">Admin</a>

{% endif %}

{% if user.is\_authenticated %}

<a href="/accounts/logout">Logout</a>

<a href="/college/profile/edit/{{user.profile.id}}">Edit Profile</a>

{% else %}

<a href="/accounts/login">Login</a>

{% endif %}

{% block content %}

{% endblock %}

<p>Copyright @ BlaBLa</p>

</body>

</html>

1. Create a folder named same as your app name say college inside templaes
2. Create four html files inside college/templates/college named notice\_list.html (because model name is Notice), notice\_detail.html, index.html and profile\_form.html and write the following code:

Inside notice\_list.html:

{% extends 'base.html' %}

{% block content %}

<h1>Notice List</h1>

<form>

<input type="text" name="si" value="{{ request.GET.si }}">

<input type="submit" value="Search"/>

</form>

{% for n1 in notice\_list %}

<h1><a href="/college/notice/{{ n1.id }}">{{ n1.subject }}</a></h1>

{% endfor %}

{% endblock %}

Inside notice\_detail.html:

{% extends 'base.html' %}

{% block content %}

<h1>Details PAge</h1>

<a href='/college/notice'>Back</a>

<h1>{{ notice.subject }}</h1>

<p>{{ notice.msg }}</p>

<p>{{ notice.branch }}</p>

<p>{{ notice.cr\_date }}</p>

{% endblock %}

Inside index.html:

{% extends 'base.html' %}

{% block content %}

<h1>Ghar......</h1>

{% if user.is\_authenticated %}

<a href='/college/notice'>Notice List</a>

{% endif %}

{% endblock %}

Inside profile\_form.html:

{% extends 'base.html' %}

{% block content %}

<h1>My Form</h1>

<form method="post">

{% csrf\_token %}

{{ form.as\_p }}

<input type="submit" value="Submit"/>

</form>

{% endblock %}

1. Create mechanism for auto creating row in profile page for each user created
   1. Create a python file named “mysignals.py” and write the following code:

from django.dispatch.dispatcher import receiver

from django.db.models.signals import post\_save

from django.contrib.auth.models import User

from college.models import Profile

@receiver(post\_save, sender=User)

def save\_profile(sender, instance, created, \*\*kwargs):

if created:

Profile.objects.create(user=instance, name=instance.username)

* 1. To register signal it has to imported once
     1. to perform anything once (when server is ready for first request after restart) in your Django project you can write following code inside apps.py inside your app folder say “college”

from django.apps import AppConfig

class CollegeConfig(AppConfig):

name = 'college'

def ready(self):

import college.mysignals

* + 1. Also open “\_\_init\_\_.py” inside your app folder say “college” and write the following code

default\_app\_config = 'college.apps.CollegeConfig'

(Note: there are two \_\_init\_\_.py make sure you write this in your app say “college/\_\_init\_\_.py” but **not** in your project say “dj6/\_\_init\_\_.py”

1. Migrations:
   1. Right click on project -> Django -> Make Migrations
   2. Give Django app name say “college” -> OK
2. Migrate:
   1. Right click on project -> Django -> Migrate (make sure there is no error while migrations are applied)
3. Create Super User
   1. Go to project folder where manage.py file is present (if you don’t remember where is the folder, right click on project name -> properties -> click on resource and look at location)
   2. Open command prompt in the folder (type cmd in pathbar)
   3. Type

python manage.py createsuperuser

and follow the steps (give name, email, password and confirm password etc make sure there is no error)

1. Run your project
   1. Terminate any already running Django project by clicking red terminate button
   2. Right click on project -> Run As -> PyDev Django
   3. Open browser and type “http://127.0.0.1:8000/”
2. Open Admin page:
   1. Open browser and type “http://127.0.0.1:8000/admin/”
3. Login and enjoy
4. Add some notices
5. Then visit <http://127.0.0.1:8000/college/notice/>