**8:401 Configuring user models and forms**

**models.py**

from django.contrib.auth.models import User

class AppUser(models.Model):

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

organisation = models.CharField(max\_length=256, null=True, blank=True)

def \_\_unicode\_\_(self):

return self.user.username

**admin.py**

admin.site.register(AppUser)

**forms.py**

from django.contrib.auth.models import User

class UserForm(forms.ModelForm):

password = forms.CharField(widget=forms.PasswordInput())

class Meta:

model = User

fields = ('username', 'email', 'password')

class UserProfileForm(forms.ModelForm):

class Meta:

model = AppUser

fields = ('organisation', )

**8.402: Adding registration**

**views.py**

def register(request):

master\_genes = Gene.objects.all()

registered = False

if request.method == 'POST':

user\_form = UserForm(data=request.POST)

profile\_form = UserProfileForm(data=request.POST)

if user\_form.is\_valid() and profile\_form.is\_valid():

user = user\_form.save()

user.set\_password(user.password)

user.save()

profile = profile\_form.save(commit=False)

profile.user = user

if 'organisation' in user\_form.cleaned\_data:

profile.organisation = request.DATA['organisation']

profile.save()

registered = True

else:

print(user\_form.errors, profile\_form.errors)

else:

user\_form = UserForm()

profile\_form = UserProfileForm()

return render(request, 'genedata/register.html',

{'user\_form': user\_form,

'profile\_form': profile\_form,

'registered': registered, 'master\_genes': master\_genes})

**add genedata/templates/genedata/register.html**

{% extends "./base.html" %}

{% load bootstrap4 %}

{% block content %}

<h1>Register</h1>

{% if registered %}

<strong>thank you for registering</strong>

{% else %}

<strong>register here</strong><br />

<form id="user\_form" method="post" action="/register"

enctype="multipart/form-data">

{% csrf\_token %}

{{ user\_form.as\_p }}

{{ profile\_form.as\_p }}

<input type="submit" name="submit" value="Register" />

</form>

{% endif %}

{% endblock %}

**add /genedata/urls.py**

path('register/', views.register, name='register'),

**title.html**

<li class="nav-item active">

<a class="nav-link" href="register/"> : Register <span class="sr-only">(current)</span></a>

</li>

**8.403: Logging in**

**view.py**

from django.contrib.auth import authenticate, login

from django.http import HttpResponse

def user\_login(request):

master\_genes = Gene.objects.all()

if request.method == 'POST':

username = request.POST['username']

password = request.POST['password']

user = authenticate(username=username, password=password)

if user:

if user.is\_active:

login(request, user)

return HttpResponseRedirect('../test')

else:

return HttpResponse("Your account is disabled.")

else:

return HttpResponse("Invalid login details supplied.")

else:

return render(request, 'genedata/login.html', {'master\_genes': master\_genes})

**title.html**

{% if user.is\_authenticated %}

<li class="nav-item active">

<a class="nav-link" href="#"> : hello {{ user.username }} <span class="sr-only">(current)</span></a>

</li>

{% else %}

<li class="nav-item active">

<a class="nav-link" href="../register/"> : Register <span class="sr-only">(current)</span></a>

</li>

<li class="nav-item active">

<a class="nav-link" href="../login/"> Log In <span class="sr-only">(current)</span></a>

</li>

{% endif %}

**templates/genedata/login.html**

{% extends "./base.html" %}

{% load bootstrap4 %}

{% block content %}

<h1>Login</h1>

<form id="login\_form" method="post" action="/login/">

{% csrf\_token %}

Username: <input type="text" name="username" value="" size="50" />

<br />

Password: <input type="password" name="password" value="" size="50" />

<br />

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

</form>

{% endblock %}

**gendata/urls.py**

path('login/', views.user\_login, name='login'),

**8.404: Logging out**

**views**

from django.contrib.auth import logout

def user\_logout(request):

logout(request)

return HttpResponseRedirect('../test')

**genedata/urls.py**

path('logout/', views.user\_logout, name='logout'),

**title.html**

{% if user.is\_authenticated %}

<li class="nav-item active">

<a class="nav-link" href="#"> : Hello {{ user.username }} <span class="sr-only">(current)</span></a>

</li>

<li class="nav-item active">

<a class="nav-link" href="../logout/"> : Logout<span class="sr-only">(current)</span></a>

</li>

{% else %}

**8.405: Access Control**

def some\_view(request):

if not request.user.is\_authenticated():

return HttpResponse("You are logged in.")

else:

return HttpResponse("You are not logged in.")

**views.py**

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

@login\_required

def user\_logout(request):

**urls.py**

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

path('gene/<int:pk>', login\_required(login\_url='login')(views.GeneDetail.as\_view()), name='gene'),

path('delete/<int:pk>', login\_required(login\_url='login')(views.GeneDelete.as\_view()), name='delete'),

path('update/<int:pk>', login\_required(login\_url='login')(views.GeneUpdate.as\_view()), name='update'),

path('create\_gene/', login\_required(login\_url='login')(views.GeneCreate.as\_view()), name='create\_gene'),