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pip install Django

django-admin startproject user_auth

cd user_auth

python manage.py startapp accounts

from django import forms

from django.core.exceptions import ValidationError

import re

from django.contrib.auth.models import User

username_regex = re.compile(r'^[a-zA-Z0-9]*$') # Alphanumeric username

email_regex = re.compile(r'^[a-zA-Z0-9._%+-]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}$')

password_regex = re.compile(r'^(?=.*[A-Za-z])(?=.*\d)[A-Za-z\d@$!%*?&]{8,}$') # Password
should be at least 8 chars, contain a number, and a letter.


class UserRegistrationForm(forms.ModelForm):

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

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


class Meta:

    model = User

    fields = ['username', 'email', 'password']


def clean_username(self):

    username = self.cleaned_data['username']

    if not username_regex.match(username):

        raise ValidationError('Username should be alphanumeric.')

    if User.objects.filter(username=username).exists():

        raise ValidationError('Username already exists.')

    return username


def clean_email(self):

    email = self.cleaned_data['email']

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    if not email_regex.match(email):
        raise ValidationError('Enter a valid email address.')

    if User.objects.filter(email=email).exists():
        raise ValidationError('Email is already registered.')

    return email


def clean_password(self):
    password = self.cleaned_data['password']

    if not password_regex.match(password):
        raise ValidationError('Password must be at least 8 characters long, and contain at least
one letter and one number.')

    return password


def clean_confirm_password(self):
    password = self.cleaned_data['password']
    confirm_password = self.cleaned_data['confirm_password']

    if password != confirm_password:
        raise ValidationError('Passwords do not match.')

    return confirm_password


class UserLoginForm(forms.Form):
    username = forms.CharField(max_length=150)
    password = forms.CharField(widget=forms.PasswordInput)

from django.shortcuts import render, redirect
from django.contrib.auth import authenticate, login
from django.contrib.auth.forms import AuthenticationForm
from django.contrib import messages
from .forms import UserRegistrationForm, UserLoginForm


def register(request):
    if request.method == 'POST':

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form = UserRegistrationForm(request.POST)
if form.is_valid():
    user = form.save(commit=False)
    user.set_password(form.cleaned_data['password']) # Hash the password
    user.save()
    messages.success(request, 'Registration successful! You can now log in.')
    return redirect('login')
else:
    messages.error(request, 'Please correct the errors below.')
else:
    form = UserRegistrationForm()
return render(request, 'accounts/register.html', {'form': form})

def user_login(request):
    if request.method == 'POST':
        form = UserLoginForm(request.POST)
        if form.is_valid():
            username = form.cleaned_data['username']
            password = form.cleaned_data['password']
            user = authenticate(request, username=username, password=password)
            if user is not None:
                login(request, user)
                messages.success(request, f'Welcome, {user.username}!')
                return redirect('home') # Redirect to a home page after login
            else:
                messages.error(request, 'Invalid username or password.')
        else:
            form = UserLoginForm()
    return render(request, 'accounts/login.html', {'form': form})

from django.urls import path

from . import views

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urlpatterns = [
    path('register/', views.register, name='register'),
    path('login/', views.user_login, name='login'),
] from django.contrib import admin
from django.urls import path, include
```

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urlpatterns = [
    path('admin/', admin.site.urls),
    path('accounts/', include('accounts.urls')),
] <!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Register</title>
</head>
<body>
    <h2>Register</h2>
    <form method="POST">
        {% csrf_token %}
        {{ form.as_p }}
        <button type="submit">Register</button>
    </form>
    <p>Already have an account? <a href="{% url 'login' %}">Login</a></p>
</body>
</html>
```

```
INSTALLED_APPS = [  
    # Other apps...  
    'accounts',  
]  
MESSAGE_STORAGE = 'django.contrib.messages.storage.session.SessionStorage'  
python manage.py runserver  
  
from django.contrib import admin  
from django.contrib.auth.models import User  
  
admin.site.register(User) Login
```

Register

```
[ Username:  [_____] ] <!-- Text input field for username -->  
[ Email:    [_____] ] <!-- Text input field for email -->  
[ Password: [_____] ] <!-- Password input field -->  
[ Confirm Password: [_____] ] <!-- Password input field -->  
[ Register ] <!-- Submit button -->
```

Registration successful! You can now [log in](#).

```
[ Username:  [_____] ] <!-- Text input field for username -->  
[ Password:  [_____] ] <!-- Password input field -->  
[ Login ] <!-- Submit button -->
```

Welcome, Mohammed!

Welcome, Mohammed! You are logged in.

[Logout]

+-----+

| Register |

+-----+

| Username: [Mohammed] |

| Email: [Mohammed@example.com] |

| Password: [Moha1234] |

| Confirm Password: [Moha1234] |

+-----+

| [Register] |

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