

CODVEDA TECHNOLOGIES

PYTHON DEVELOPMENT INTERNSHIP

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BASIC (LEVEL 1)

TASK 1: SIMPLE CALCULATOR

```
B(1).py - C:/Users/aksha/OneDrive/codveda internship tasks/B(1).py (3.13.7)
File Edit Format Run Options Window Help

def add(a, b):
    return a + b
def subtract(a, b):
    return a - b
def multiply(a, b):
    return a * b
def divide(a, b):
    if b == 0:
        return "Error: Division by zero is not allowed!"
    return a / b
print("----- Simple Calculator -----")
print("1.Add\n2.Subtract\n3.Multiply\n4.Divide")
choice = input("Enter choice (1-4): ")
num1 = float(input("Enter first number: "))
num2 = float(input("Enter second number: "))
if choice == "1":
    print("Result =", add(num1, num2))
elif choice == "2":
    print("Result =", subtract(num1, num2))
elif choice == "3":
    print("Result =", multiply(num1, num2))
elif choice == "4":
    print("Result =", divide(num1, num2))
else:
    print("Invalid choice!")
```

```
IDLE Shell 3.13.7
File Edit Shell Debug Options Window Help
Python 3.13.7 (tags/v3.13.7:bceee1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)]
on win32
Enter "help" below or click "Help" above for more information.
>>>
=====
RESTART: C:/Users/aksha/OneDrive
/codveda internship tasks/B(1).py =====
----- Simple Calculator -----
1.Add
2.Subtract
3.Multiply
4.Divide
Enter choice (1-4): 3
Enter first number: 5
Enter second number: 8
Result = 40.0
>>>
```

TASK 2: NUMBER GUESSING GAME

B(2).py - C:/Users/aksha/OneDrive/codveda internship tasks/B(2).py (3.13.7)

File Edit Format Run Options Window Help

```
import random
number = random.randint(1, 100)
attempts = 7
print("Guess the number (1 to 100)")
for i in range(attempts):
    guess = int(input(f"Attempt {i+1}/{attempts}: "))
    if guess == number:
        print("Correct! You guessed it!")
        break
    elif guess < number:
        print("Too low!")
    else:
        print("Too high!")
else:
    print("Out of attempts! The number was:", number)
```

IDLE Shell 3.13.7

File Edit Shell Debug Options Window Help

Python 3.13.7 (tags/v3.13.7:bce1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)]

on win32

Enter "help" below or click "Help" above for more information.

>>>

===== RESTART: C:/Users/aksha/OneDrive/codveda internship tasks/B(2).py =====

Guess the number (1 to 100)

Attempt 1/7: 50

Too high!

Attempt 2/7: 35

Too high!

Attempt 3/7: 20

Too high!

Attempt 4/7: 10

Correct! You guessed it!

>>>

TASK 3: WORD COUNTER

B(3).py - C:/Users/aksha/OneDrive/codveda internship tasks/B(3).py (3.13.7)

File Edit Format Run Options Window Help

```
filename = input("Enter file name: ")  
try:  
    with open(filename, "r") as file:  
        content = file.read()  
        words = content.split()  
        print("Total words:", len(words))  
except FileNotFoundError:  
    print("Error: File not found!")
```

IDLE Shell 3.13.7

File Edit Shell Debug Options Window Help

Python 3.13.7 (tags/v3.13.7:bce1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)]
on win32
Enter "help" below or click "Help" above for more information.
>>>
===== RESTART: C:/Users/aksha/OneDrive/codveda internship tasks/B(3).py =====
Enter file name: text.txt
Total words: 13
>>>

LEVEL 2(INTERMEDIATE)

TASK 1: TO-DO LIST APPLICATION

```
import json
FILE = "tasks.json"
def load_tasks():
    try:
        with open(FILE, "r") as f:
            return json.load(f)
    except:
        return []
def save_tasks(tasks):
    with open(FILE, "w") as f:
        json.dump(tasks, f, indent=4)
def add_task():
    task = input("Enter new task: ").strip()
    if not task:
        print("Task cannot be empty!")
        return
    tasks = load_tasks()
    if any(t["task"].lower() == task.lower() for t in tasks):
        print("Task already exists!")
        return
    tasks.append({"task": task, "done": False})
    save_tasks(tasks)
    print("Task added!")
def view_tasks():
    tasks = load_tasks()
    ..
```

File Edit Format Run Options Window Help

```
def view_tasks():
    tasks = load_tasks()
    if not tasks:
        print("No tasks found.")
        return
    for i, t in enumerate(tasks, 1):
        status = "✓" if t["done"] else "✗"
        print(f"{i}. {t['task']} [{status}]")
def mark_done():
    tasks = load_tasks()
    if not tasks:
        print("No tasks to mark done.")
        return
    view_tasks()
    try:
        n = int(input("Enter task number to mark done: "))
        if 1 <= n <= len(tasks):
            tasks[n-1]["done"] = True
            save_tasks(tasks)
            print("Task marked as completed!")
        else:
            print("Invalid task number.")
    except ValueError:
        print("Please enter a valid number.")
def delete_task():
    . . .
```

```
def delete_task():
    tasks = load_tasks()
    if not tasks:
        print("No tasks to delete.")
        return
    view_tasks()
    try:
        n = int(input("Enter task number to delete: "))
        if 1 <= n <= len(tasks):
            removed = tasks.pop(n-1)
            save_tasks(tasks)
            print(f"Task '{removed['task']}' deleted!")
        else:
            print("Invalid task number.")
    except ValueError:
        print("Please enter a valid number.")
while True:
    print("\nTo-Do List Menu")
    print("1.Add 2.View 3.Marked 4.Delete 5.Exit")
    choice = input("Enter choice: ").strip()
    if choice == "1":
        add_task()
    elif choice == "2":
        view_tasks()
    elif choice == "3":
        . . .
```

File Edit Format Run Options Window Help

```
removed = tasks.pop(n-1)
save_tasks(tasks)
print(f"Task '{removed['task']}' deleted!")

else:
    print("Invalid task number.")

except ValueError:
    print("Please enter a valid number.")

while True:
    print("\nTo-Do List Menu")
    print("1.Add 2.View 3.Mark Done 4.Delete 5.Exit")
    choice = input("Enter choice: ").strip()

    if choice == "1":
        add_task()
    elif choice == "2":
        view_tasks()
    elif choice == "3":
        mark_done()
    elif choice == "4":
        delete_task()
    elif choice == "5":
        print("Exiting... Goodbye!")
        break
    else:
        print("Invalid choice.")
```

Python 3.13.7 (tags/v3.13.7:bce1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)] on win32

Enter "help" below or click "Help" above for more information.

>>>

===== RESTART: C:\Users\aksha\OneDrive\codveda internship tasks\l(1).py =====

To-Do List Menu

1.Add 2.View 3.Mark Done 4.Delete 5.Exit

Enter choice: 1

Enter new task: do exercise

Task added!

To-Do List Menu

1.Add 2.View 3.Mark Done 4.Delete 5.Exit

Enter choice: 1

Enter new task: buy medicine

Task added!

To-Do List Menu

1.Add 2.View 3.Mark Done 4.Delete 5.Exit

Enter choice: 2

1. do exercise [X]

2. buy medicine [X]

To-Do List Menu

1.Add 2.View 3.Mark Done 4.Delete 5.Exit

- - - - -

1.Add 2.View 3.Mark Done 4.Delete 5.Exit

Enter choice: 3

1. do exercise [X]

2. buy medicine [X]

Enter task number to mark done: 1

Task marked as completed!

To-Do List Menu

1.Add 2.View 3.Mark Done 4.Delete 5.Exit

Enter choice: 2

1. do exercise [✓]

2. buy medicine [X]

To-Do List Menu

1.Add 2.View 3.Mark Done 4.Delete 5.Exit

Enter choice: 4

1. do exercise [✓]

2. buy medicine [X]

Enter task number to delete: 2

Task 'buy medicine' deleted!

To-Do List Menu

1.Add 2.View 3.Mark Done 4.Delete 5.Exit

Enter choice: 2

1. do exercise [✓]

To-Do List Menu**1.Add 2.View 3.Mark Done 4.Delete 5.Exit****Enter choice: 2****1. do exercise [✓]****2. buy medicine [X]****To-Do List Menu****1.Add 2.View 3.Mark Done 4.Delete 5.Exit****Enter choice: 4****1. do exercise [✓]****2. buy medicine [X]****Enter task number to delete: 2****Task 'buy medicine' deleted!****To-Do List Menu****1.Add 2.View 3.Mark Done 4.Delete 5.Exit****Enter choice: 2****1. do exercise [✓]****To-Do List Menu****1.Add 2.View 3.Mark Done 4.Delete 5.Exit****Enter choice: 5****Exiting... Goodbye!**

TASK 2: DATA SCRAPER

```
import requests
from bs4 import BeautifulSoup
import csv
url = "https://news.ycombinator.com/"
response = requests.get(url)
soup = BeautifulSoup(response.text, "html.parser")
headlines = soup.select("a.storylink")
if not headlines:
    headlines = soup.select("td.title > a")
with open("headlines.csv", "w", newline="", encoding="utf-8") as f:
    writer = csv.writer(f)
    writer.writerow(["Headline"])
    for h in headlines:
        writer.writerow([h.text.strip()])
print("Scraping completed! Data saved to headlines.csv")
```

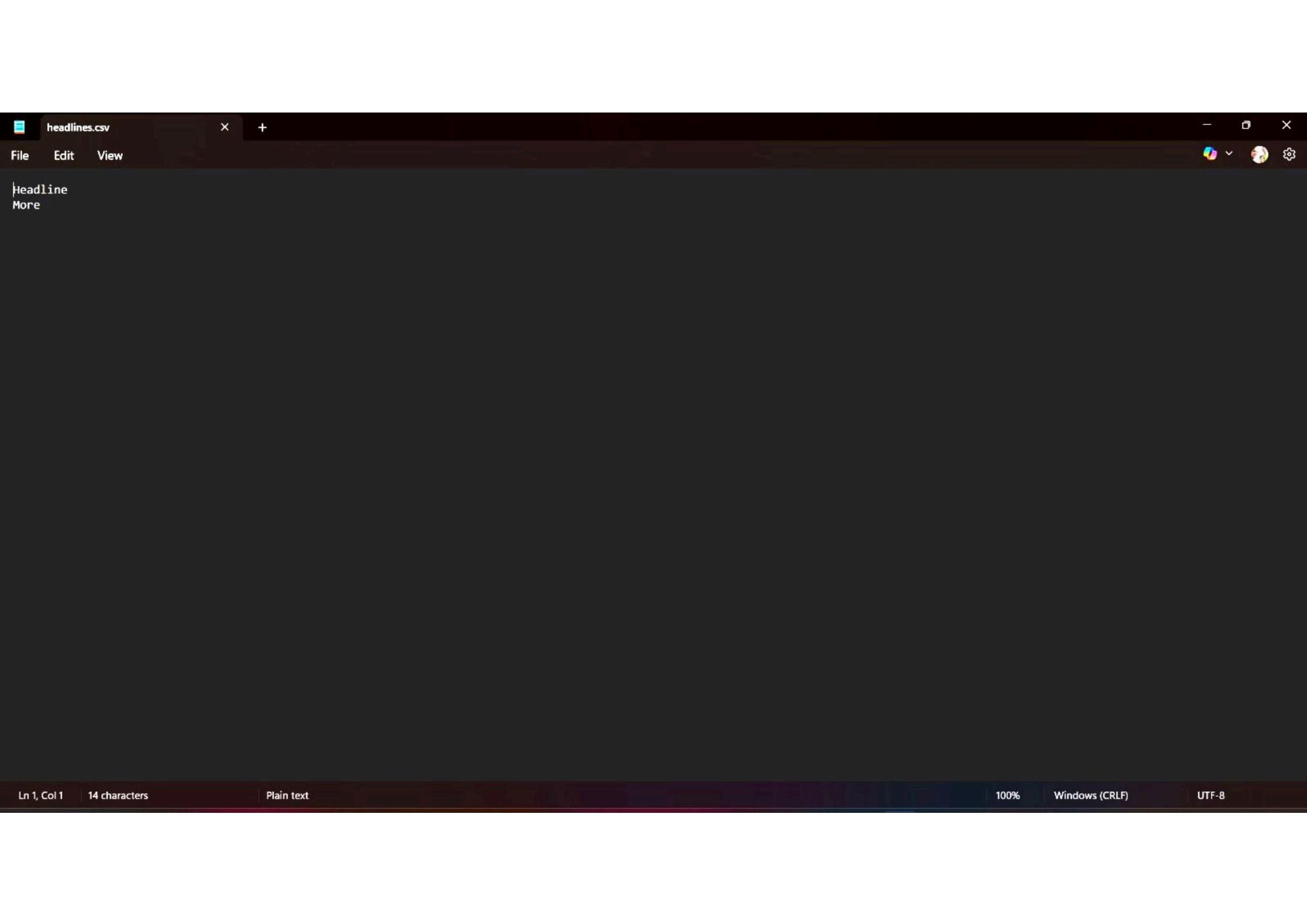
```
C:\Users\aksha\OneDrive\codveda internship tasks>pip install requests beautifulsoup4
Collecting requests
  Downloading requests-2.32.5-py3-none-any.whl.metadata (4.9 kB)
Collecting beautifulsoup4
  Downloading beautifulsoup4-4.14.3-py3-none-any.whl.metadata (3.8 kB)
Collecting charset_normalizer<4,>=2 (from requests)
  Downloading charset_normalizer-3.4.4-cp313-cp313-win_amd64.whl.metadata (38 kB)
Collecting idna<4,>=2.5 (from requests)
  Downloading idna-3.11-py3-none-any.whl.metadata (8.4 kB)
Collecting urllib3<3,>=1.21.1 (from requests)
  Downloading urllib3-2.5.0-py3-none-any.whl.metadata (6.5 kB)
Collecting certifi>=2017.4.17 (from requests)
  Downloading certifi-2025.11.12-py3-none-any.whl.metadata (2.5 kB)
Collecting soupsieve>=1.6.1 (from beautifulsoup4)
  Downloading soupsieve-2.8-py3-none-any.whl.metadata (4.6 kB)
Collecting typing_extensions>=4.0.0 (from beautifulsoup4)
  Downloading typing_extensions-4.15.0-py3-none-any.whl.metadata (3.3 kB)
Downloading requests-2.32.5-py3-none-any.whl (64 kB)
Downloading charset_normalizer-3.4.4-cp313-cp313-win_amd64.whl (107 kB)
Downloading idna-3.11-py3-none-any.whl (71 kB)
Downloading urllib3-2.5.0-py3-none-any.whl (129 kB)
Downloading beautifulsoup4-4.14.3-py3-none-any.whl (107 kB)
Downloading certifi-2025.11.12-py3-none-any.whl (159 kB)
Downloading soupsieve-2.8-py3-none-any.whl (36 kB)
Downloading typing_extensions-4.15.0-py3-none-any.whl (44 kB)
Installing collected packages: urllib3, typing_extensions, soupsieve, idna, charset_normalizer, certifi, requests, beautifulsoup4
Successfully installed beautifulsoup4-4.14.3 certifi-2025.11.12 charset_normalizer-3.4.4 idna-3.11 requests-2.32.5 soupsieve-2.8 typing_extensions-4.15.0 urllib3-2.5.0

[notice] A new release of pip is available: 25.2 -> 25.3
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\aksha\OneDrive\codveda internship tasks>python I(2).py
Scraping completed! Data saved to headlines.csv

C:\Users\aksha\OneDrive\codveda internship tasks>python I(3).py
Scraping completed! Data saved to hacker_news.csv

C:\Users\aksha\OneDrive\codveda internship tasks>
```



A screenshot of a dark-themed code editor window. The title bar shows the file name "headlines.csv". The menu bar includes "File", "Edit", and "View". The toolbar on the right includes icons for file operations and settings. The main editor area contains the following text:

```
headline
More
```

The status bar at the bottom shows "Ln 1, Col 1" and "14 characters" on the left, "Plain text" in the center, and "100%", "Windows (CRLF)", and "UTF-8" on the right.

TASK 3: API INTEGRATION

```
import requests
city = input("Enter city name: ")
api = "https://api.openweathermap.org/data/2.5/weather"
key = "7b5051b67fec5f3cd08c2bc279ac6060"
params = {"q": city, "appid": key, "units": "metric"}
response = requests.get(api, params=params)
if response.status_code == 200:
    data = response.json()
    print("Temperature:", data["main"]["temp"], "°C")
    print("Weather:", data["weather"][0]["description"])
else:
    print("Error:", response.status_code)
```

```
C:\Windows\System32\cmd.exe + - Microsoft Windows [Version 10.0.26100.7171]
(c) Microsoft Corporation. All rights reserved.

C:\Users\aksha\OneDrive\codveda internship tasks>pip install requests
Requirement already satisfied: requests in c:\users\aksha\appdata\local\programs\python\python313\lib\site-packages (2.32.5)
Requirement already satisfied: charset_normalizer<4,>=2 in c:\users\aksha\appdata\local\programs\python\python313\lib\site-packages (from requests) (3.4.4)
Requirement already satisfied: idna<4,>=2.5 in c:\users\aksha\appdata\local\programs\python\python313\lib\site-packages (from requests) (3.11)
Requirement already satisfied: urllib3<3,>=1.21.1 in c:\users\aksha\appdata\local\programs\python\python313\lib\site-packages (from requests) (2.5.0)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\aksha\appdata\local\programs\python\python313\lib\site-packages (from requests) (2025.11.12)

[notice] A new release of pip is available: 25.2 -> 25.3
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\aksha\OneDrive\codveda internship tasks>python I(3).py
Enter city name: Chennai
Temperature: 24.6 °C
Weather: mist

C:\Users\aksha\OneDrive\codveda internship tasks>
```

LEVEL 3(ADVANCED)

TASK 1: DJANGO WEB APPLICATION WITH AUTHENTICATION

```
C:\Windows\System32\cmd.e  X  +  X  -  O  X

Microsoft Windows [Version 10.0.26200.7462]
(c) Microsoft Corporation. All rights reserved.

C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>python -m venv venv
C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>venv\Scripts\activate

(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>pip install django
Collecting django
  Using cached django-6.0-py3-none-any.whl.metadata (3.9 kB)
Collecting asgiref>=3.9.1 (from django)
  Using cached asgiref-3.11.0-py3-none-any.whl.metadata (9.3 kB)
Collecting sqlparse>=0.5.0 (from django)
  Downloading sqlparse-0.5.5-py3-none-any.whl.metadata (4.7 kB)
Collecting tzdata (from django)
  Downloading tzdata-2025.3-py2.py3-none-any.whl.metadata (1.4 kB)
Using cached django-6.0-py3-none-any.whl (8.3 MB)
Using cached asgiref-3.11.0-py3-none-any.whl (24 kB)
Downloading sqlparse-0.5.5-py3-none-any.whl (46 kB)
Downloading tzdata-2025.3-py2.py3-none-any.whl (348 kB)
Installing collected packages: tzdata, sqlparse, asgiref, django
Successfully installed asgiref-3.11.0 django-6.0 sqlparse-0.5.5 tzdata-2025.3

[notice] A new release of pip is available: 25.2 -> 25.3
[notice] To update, run: python.exe -m pip install --upgrade pip

(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>django-admin --version
6.0

(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>django-admin startproject config .
(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>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 work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
December 20, 2025 - 18:48:59
Django version 6.0, using settings 'config.settings'
```

```
C:\Windows\System32\cmd.e x + x - o x

Using cached asgiref-3.11.0-py3-none-any.whl (24 kB)
Downloading sqlparse-0.5.5-py3-none-any.whl (46 kB)
Downloading tzdata-2025.3-py2.py3-none-any.whl (348 kB)
Installing collected packages: tzdata, sqlparse, asgiref, django
Successfully installed asgiref-3.11.0 django-6.0 sqlparse-0.5.5 tzdata-2025.3

[notice] A new release of pip is available: 25.2 -> 25.3
[notice] To update, run: python.exe -m pip install --upgrade pip

(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>django-admin --version
6.0

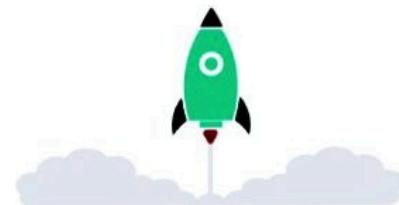
(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>django-admin startproject config .

(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>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 work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
December 20, 2025 - 18:48:59
Django version 6.0, using settings 'config.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.

WARNING: This is a development server. Do not use it in a production setting. Use a production WSGI or ASGI server instead.
For more information on production servers see: https://docs.djangoproject.com/en/6.0/howto/deployment/
[20/Dec/2025 18:49:47] "GET / HTTP/1.1" 200 12068
Not Found: /favicon.ico
[20/Dec/2025 18:49:47] "GET /favicon.ico HTTP/1.1" 404 2208
```



The install worked successfully! Congratulations!

[View release notes](#) for Django 6.0

You are seeing this page because `DEBUG=True` is in your settings file and you have not configured any URLs.

django



Django Documentation
Topics, references, & how-to's



Tutorial: A Polling App
Get started with Django



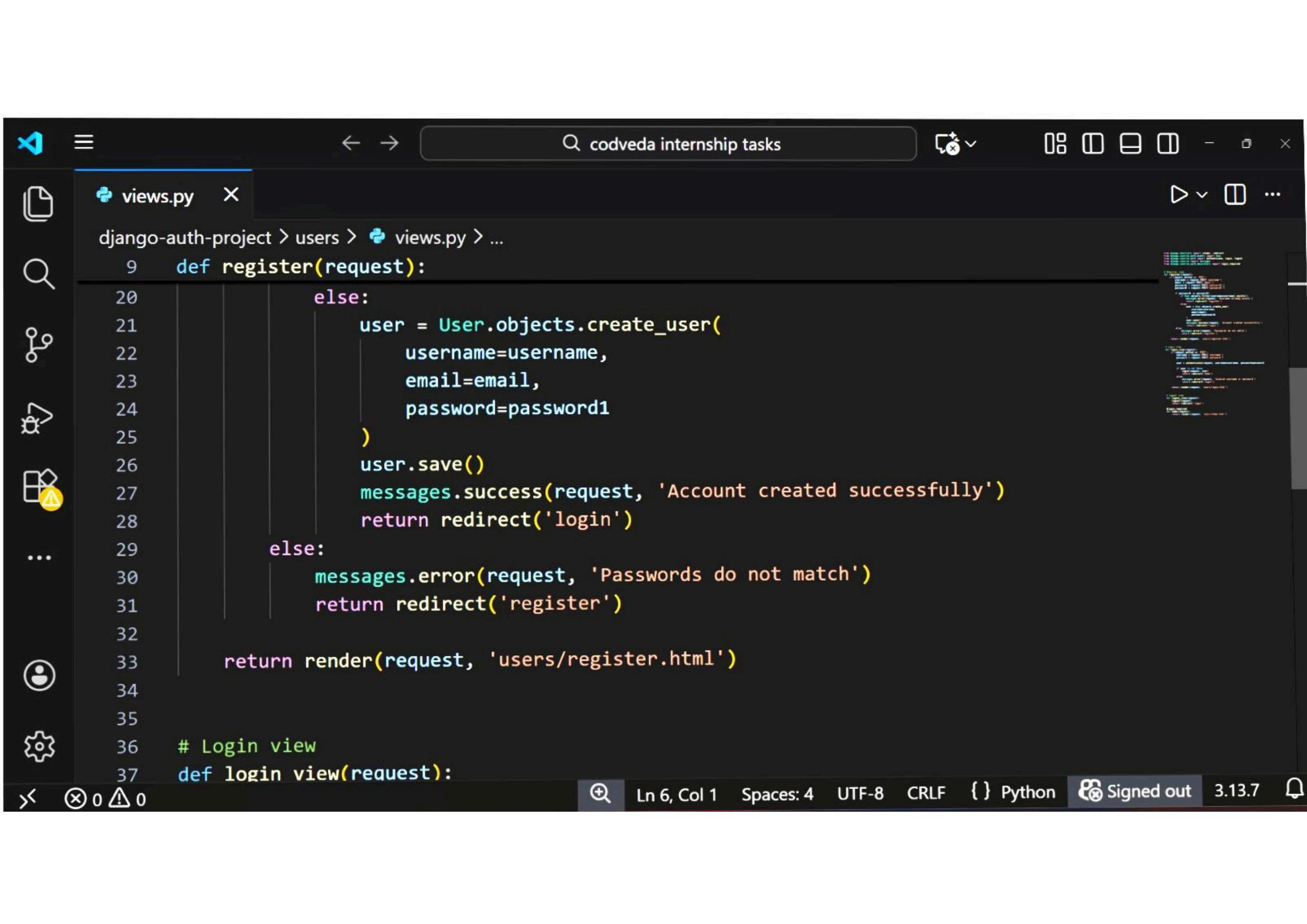
Django Community
Connect, get help, or contribute

```
C:\Windows\System32\cmd.e X + X [20/Dec/2025 20:03:26] "POST /register/ HTTP/1.1" 500 128722  
(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>python manage.py makemigrations  
No changes detected  
(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>python manage.py migrate  
Operations to perform:  
  Apply all migrations: admin, auth, contenttypes, sessions  
Running migrations:  
  Applying contenttypes.0001_initial... OK  
  Applying auth.0001_initial... OK  
  Applying admin.0001_initial... OK  
  Applying admin.0002_logentry_remove_auto_add... OK  
  Applying admin.0003_logentry_add_action_flag_choices... OK  
  Applying contenttypes.0002_remove_content_type_name... OK  
  Applying auth.0002_alter_permission_name_max_length... OK  
  Applying auth.0003_alter_user_email_max_length... OK  
  Applying auth.0004_alter_user_username_opts... OK  
  Applying auth.0005_alter_user_last_login_null... OK  
  Applying auth.0006_require_contenttypes_0002... OK  
  Applying auth.0007_alter_validators_add_error_messages... OK  
  Applying auth.0008_alter_user_username_max_length... OK  
  Applying auth.0009_alter_user_last_name_max_length... OK  
  Applying auth.0010_alter_group_name_max_length... OK  
  Applying auth.0011_update_proxy_permissions... OK  
  Applying auth.0012_alter_user_first_name_max_length... OK  
  Applying sessions.0001_initial... OK  
(venv) C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>python manage.py runserver  
Watching for file changes with StatReloader  
Performing system checks...  
  
System check identified no issues (0 silenced).  
December 20, 2025 - 20:06:27  
Django version 6.0, using settings 'config.settings'  
Starting development server at http://127.0.0.1:8000/  
Quit the server with CTRL-BREAK.  
  
WARNING: This is a development server. Do not use it in a production setting. Use a production WSGI or ASGI server instead.  
For more information on production servers see: https://docs.djangoproject.com/en/6.0/howto/deployment/  
[20/Dec/2025 20:06:32] "GET / HTTP/1.1" 302 0
```

views.py

```
django-auth-project > users > views.py > ...
1  from django.shortcuts import render, redirect
2  from django.contrib.auth.models import User
3  from django.contrib.auth import authenticate, login, logout
4  from django.contrib import messages
5  from django.contrib.auth.decorators import login_required
6
7
8  # Register view
9  def register(request):
10     if request.method == 'POST':
11         username = request.POST['username']
12         email = request.POST['email']
13         password1 = request.POST['password1']
14         password2 = request.POST['password2']
15
16         if password1 == password2:
17             if User.objects.filter(username=username).exists():
18                 messages.error(request, 'Username already exists')
19             return redirect('register')
```

Ln 6, Col 1 Spaces: 4 UTF-8 CRLF {} Python Signed out 3.13.7



A screenshot of a dark-themed code editor, likely Visual Studio Code, showing a Python file named `views.py`. The file contains code for a user registration view in a Django project. The code uses the `User.objects.create_user()` method to create a new user with the provided username, email, and password. It then saves the user and displays a success message. If the passwords do not match, it shows an error message and returns to the registration page. Finally, it renders a template for the registration page. The code editor has a sidebar with various icons for file operations, search, and other tools. The status bar at the bottom shows the file path, line and column numbers, and encoding information.

```
django-auth-project > users > views.py > ...
9  def register(request):
10         else:
11             user = User.objects.create_user(
12                 username=username,
13                 email=email,
14                 password=password1
15             )
16             user.save()
17             messages.success(request, 'Account created successfully')
18             return redirect('login')
19
20         else:
21             messages.error(request, 'Passwords do not match')
22             return redirect('register')
23
24
25
26
27
28
29
30
31
32
33     return render(request, 'users/register.html')
34
35
36 # Login view
37 def login_view(request):
```

views.py

django-auth-project > users > views.py > ...

9 def register(request):

10 else:

11 user = User.objects.create_user(

12 username=username,

13 email=email,

14 password=password1

15)

16 user.save()

17 messages.success(request, 'Account created successfully')

18 return redirect('login')

19

20 else:

21 messages.error(request, 'Passwords do not match')

22 return redirect('register')

23

24

25

26

27

28

29

30

31

32

33 return render(request, 'users/register.html')

34

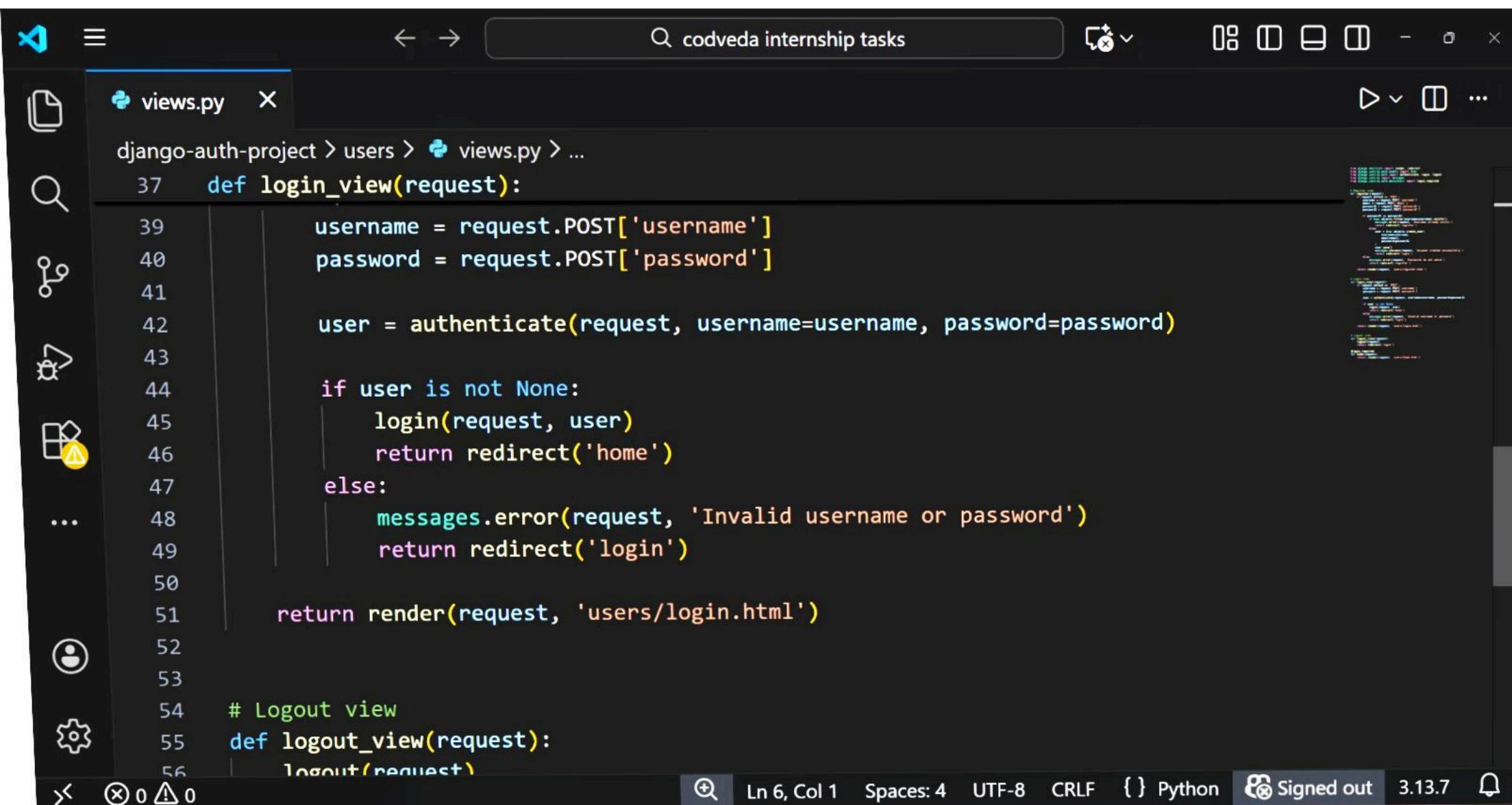
35

36 # Login view

37 def login_view(request):

Ln 6, Col 1 Spaces: 4 UTF-8 CRLF { } Python

Signed out 3.13.7

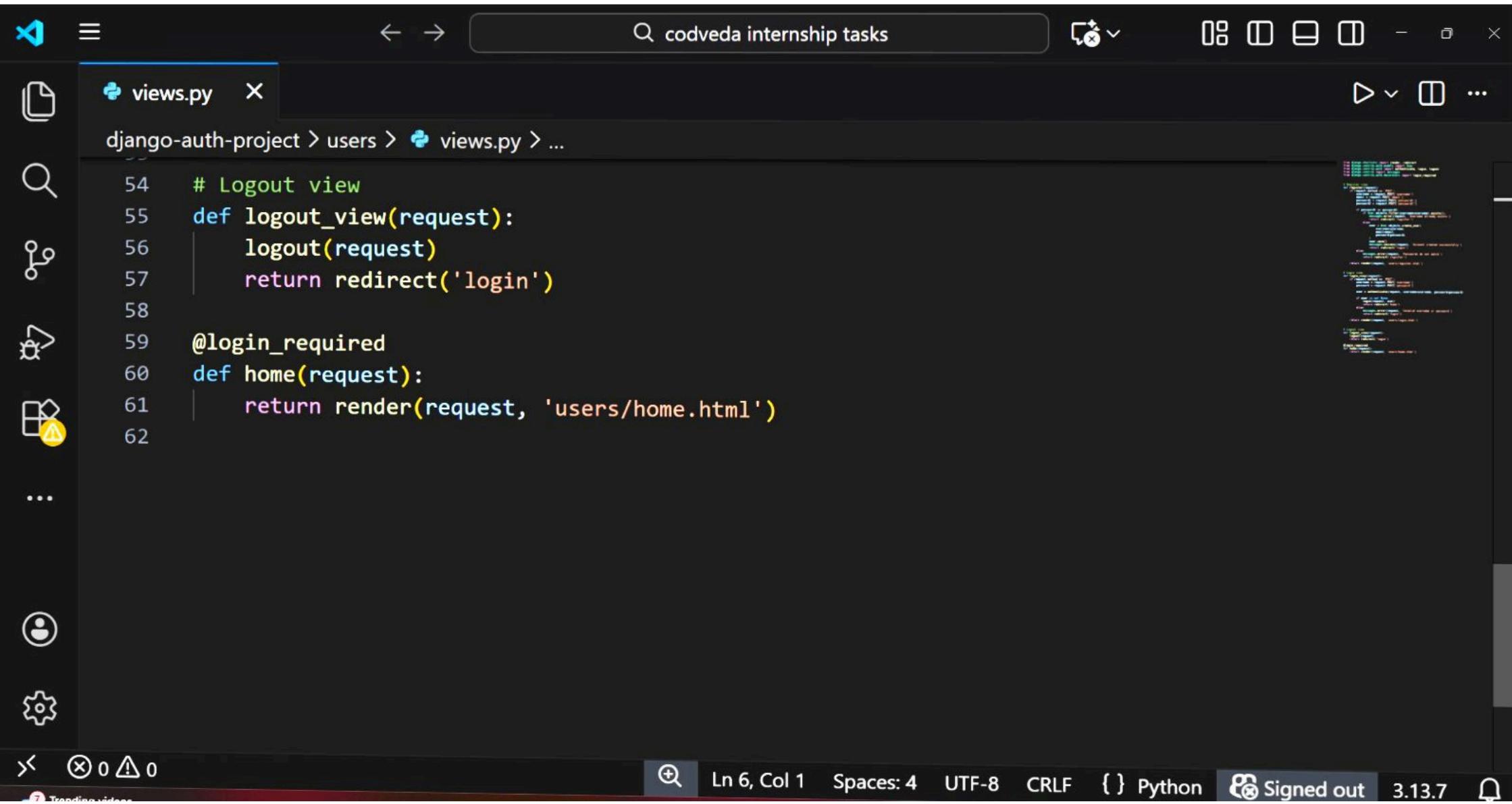


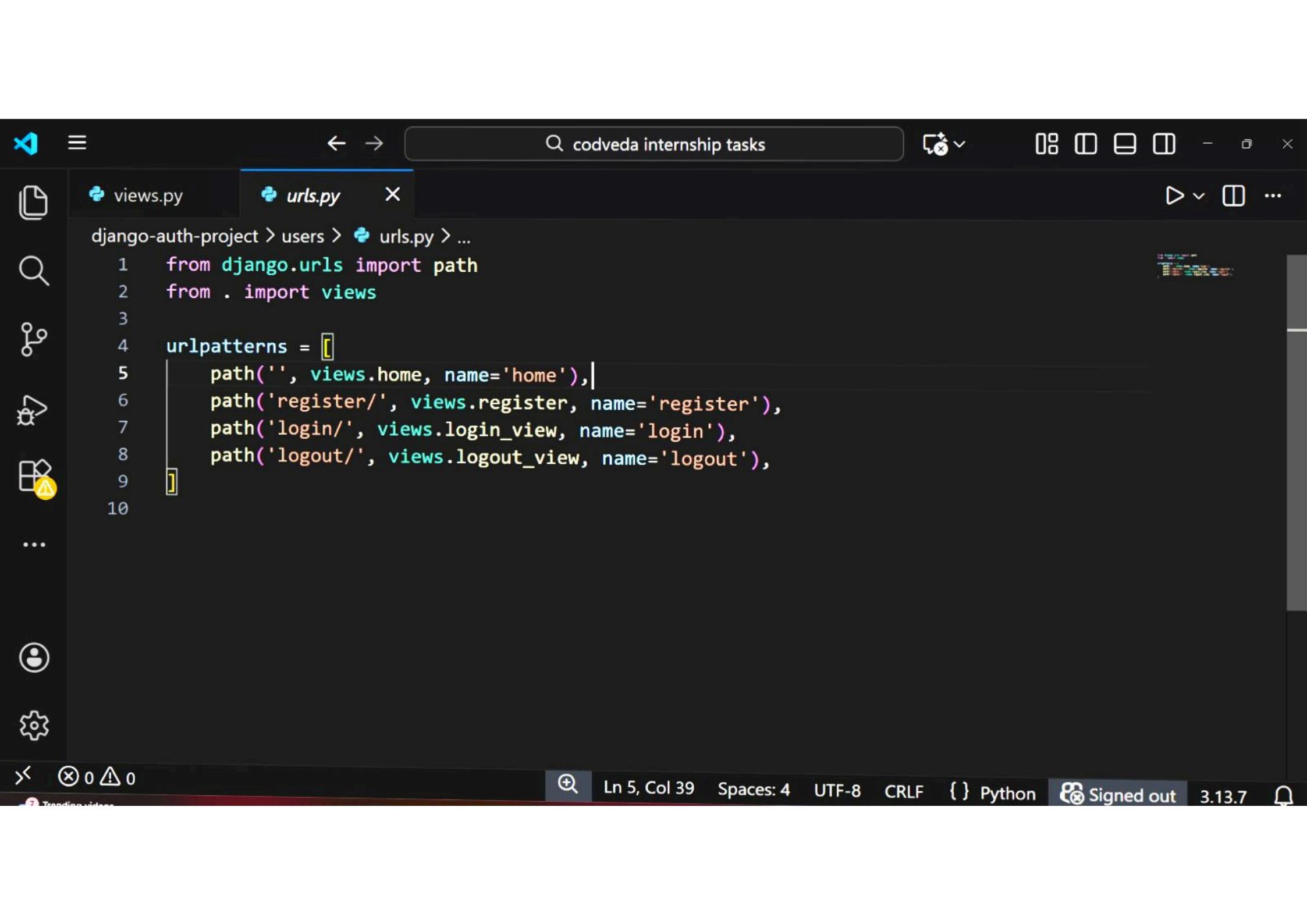
views.py

```
django-auth-project > users > views.py > ...
37 def login_view(request):
38     username = request.POST['username']
39     password = request.POST['password']
40
41     user = authenticate(request, username=username, password=password)
42
43     if user is not None:
44         login(request, user)
45         return redirect('home')
46     else:
47         messages.error(request, 'Invalid username or password')
48         return redirect('login')
49
50
51     return render(request, 'users/login.html')
52
53
54     # Logout view
55 def logout_view(request):
56     logout(request)
```

Ln 6, Col 1 Spaces: 4 UTF-8 CRLF {} Python

Signed out 3.13.7

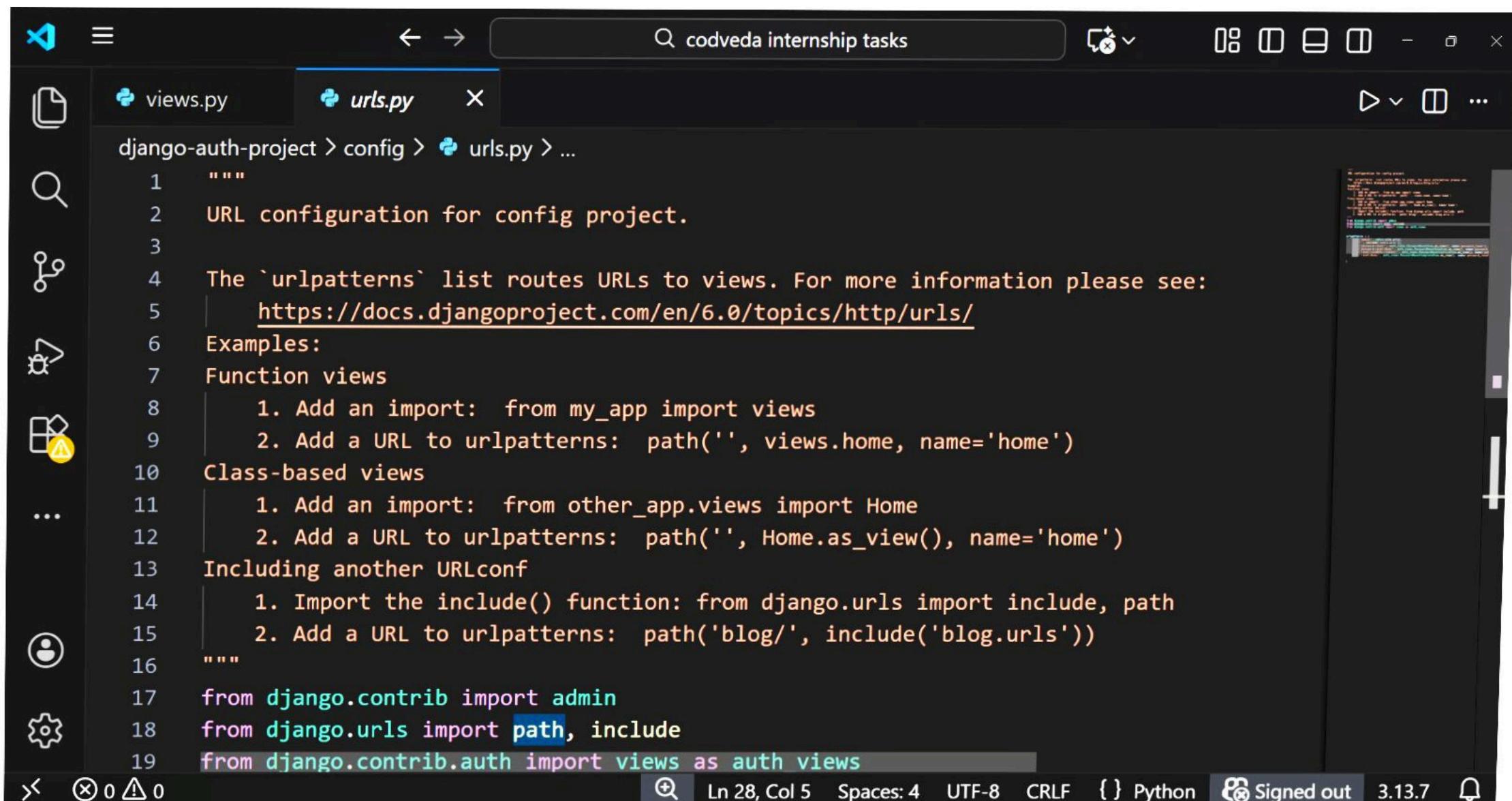




A screenshot of a dark-themed code editor, likely VS Code, showing a Django URL configuration file. The file is named `urls.py` and is located in a `users` directory within a `django-auth-project`. The code defines a list of URL patterns for user authentication and registration.

```
1  from django.urls import path
2  from . import views
3
4  urlpatterns = [
5      path('', views.home, name='home'),
6      path('register/', views.register, name='register'),
7      path('login/', views.login_view, name='login'),
8      path('logout/', views.logout_view, name='logout'),
9  ]
```

The editor interface includes a navigation bar with tabs for `views.py` and `urls.py`, a search bar, and various status icons. The bottom status bar shows the current line and column (Ln 5, Col 39), encoding (UTF-8), and file type (Python). A user profile icon indicates the user is signed out.

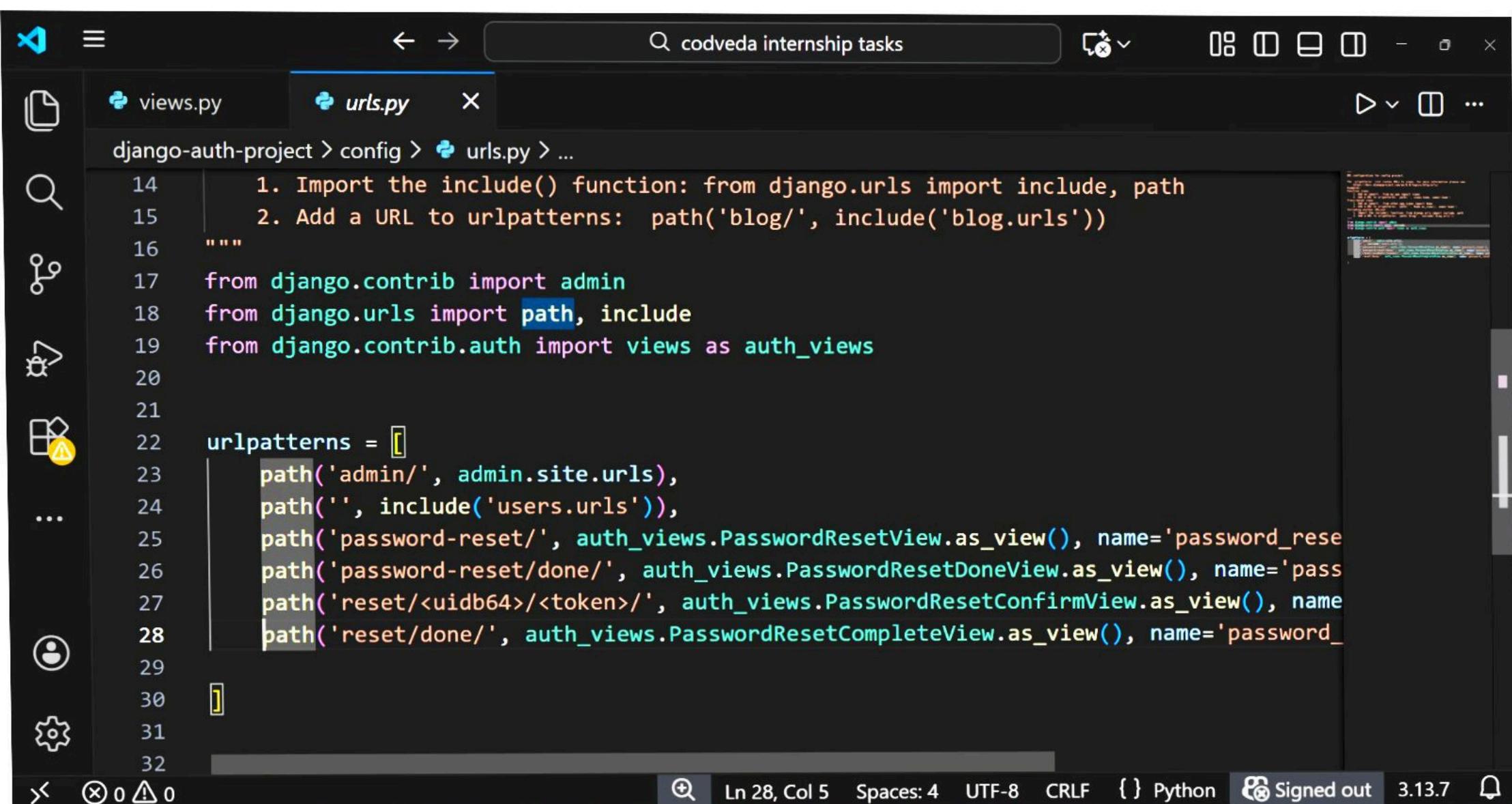


views.py urls.py X

django-auth-project > config > urls.py > ...

```
1 """
2     URL configuration for config project.
3
4     The `urlpatterns` list routes URLs to views. For more information please see:
5         https://docs.djangoproject.com/en/6.0/topics/http/urls/
6     Examples:
7         Function views
8             1. Add an import: from my_app import views
9                 2. Add a URL to urlpatterns: path('', views.home, name='home')
10            Class-based views
11                1. Add an import: from other_app.views import Home
12                    2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
13            Including another URLconf
14                1. Import the include() function: from django.urls import include, path
15                    2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
16 """
17 from django.contrib import admin
18 from django.urls import path, include
19 from django.contrib.auth import views as auth_views
```

Ln 28, Col 5 Spaces: 4 UTF-8 CRLF { } Python  Signed out 3.13.7



codveda internship tasks

views.py urls.py

django-auth-project > config > urls.py > ...

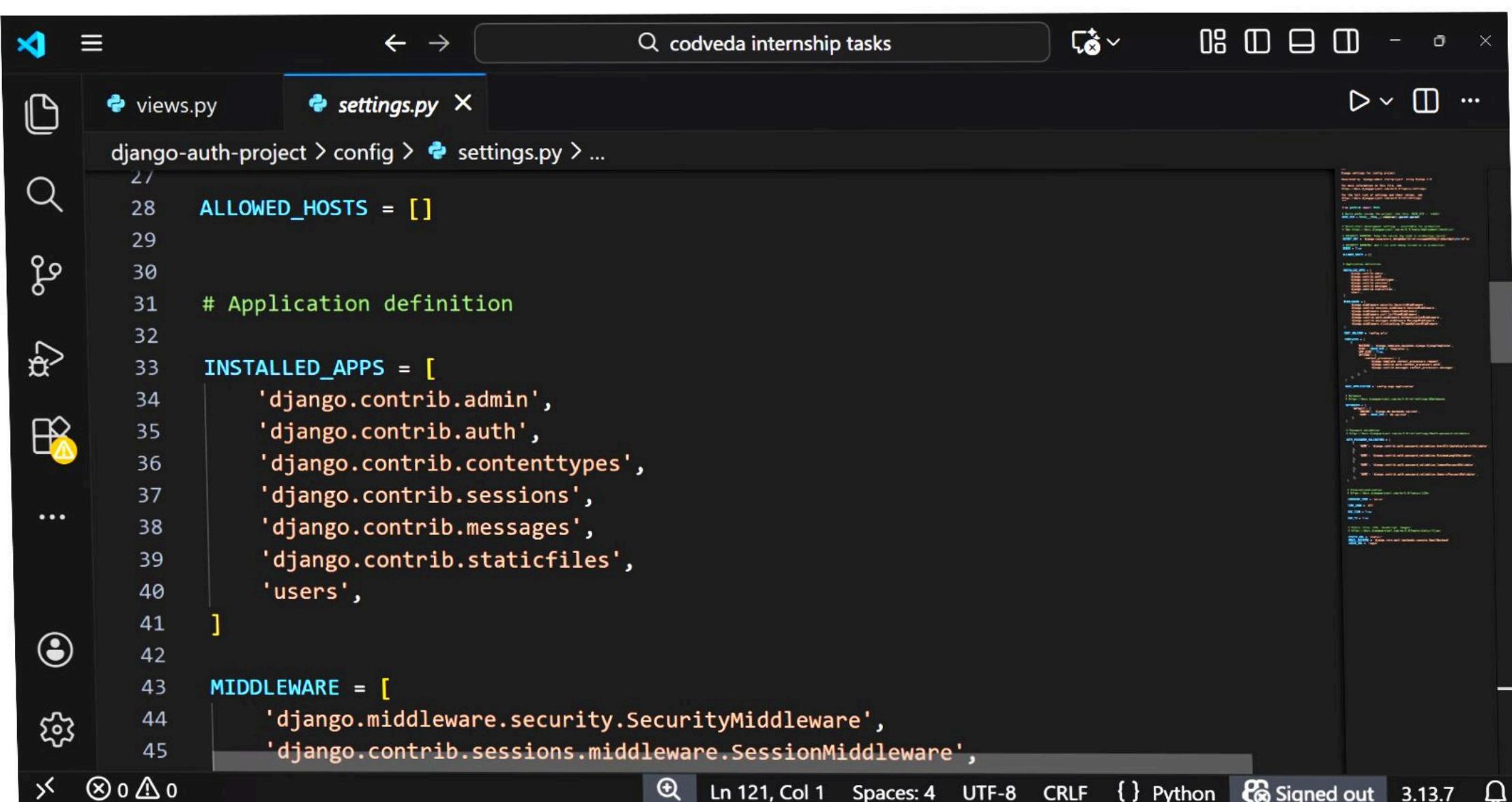
```
14     1. Import the include() function: from django.urls import include, path
15     2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
16 """
17 from django.contrib import admin
18 from django.urls import path, include
19 from django.contrib.auth import views as auth_views
20
21
22 urlpatterns = [
23     path('admin/', admin.site.urls),
24     path('', include('users.urls')),
25     path('password-reset/', auth_views.PasswordResetView.as_view(), name='password_rese
26     path('password-reset/done/', auth_views.PasswordResetDoneView.as_view(), name='pass
27     path('reset/<uidb64>/<token>/', auth_views.PasswordResetConfirmView.as_view(), name
28     path('reset/done/', auth_views.PasswordResetCompleteView.as_view(), name='password_
29
30
31
32 ]
```

Ln 28, Col 5 Spaces: 4 UTF-8 CRLF { } Python Signed out 3.13.7

A screenshot of a code editor (VS Code) showing a Django project structure. The sidebar on the left contains icons for file operations, search, file navigation, and user management. The main area shows the content of the `urls.py` file within the `config` directory of a `django-auth-project`. The code includes imports for `include` and `path` from `django.urls`, and imports for various authentication views from `auth_views`. The code editor has a dark theme, and the status bar at the bottom shows the current line (Ln 28, Col 5), character count (Spaces: 4), encoding (UTF-8), line separator (CRLF), file type (Python), and the user status (Signed out). A search bar at the top right contains the text "codveda internship tasks".

```
django-auth-project > config > urls.py > ...
14     action: from django.urls import include, path
15     : path('blog/', include('blog.urls'))
16
17     n
18     include
19         views as auth_views
20
21
22
23     rls),
24     s')),
25     h_views.PasswordResetView.as_view(), name='password_reset'),
26     , auth_views.PasswordResetDoneView.as_view(), name='password_reset_done'),
27     >/', auth_views.PasswordResetConfirmView.as_view(), name='password_reset_confirm'),
28     ews.PasswordResetCompleteView.as_view(), name='password_reset_complete'),
29
30
31
32
```

Ln 28, Col 5 Spaces: 4 UTF-8 CRLF { } Python Signed out 3.13.7

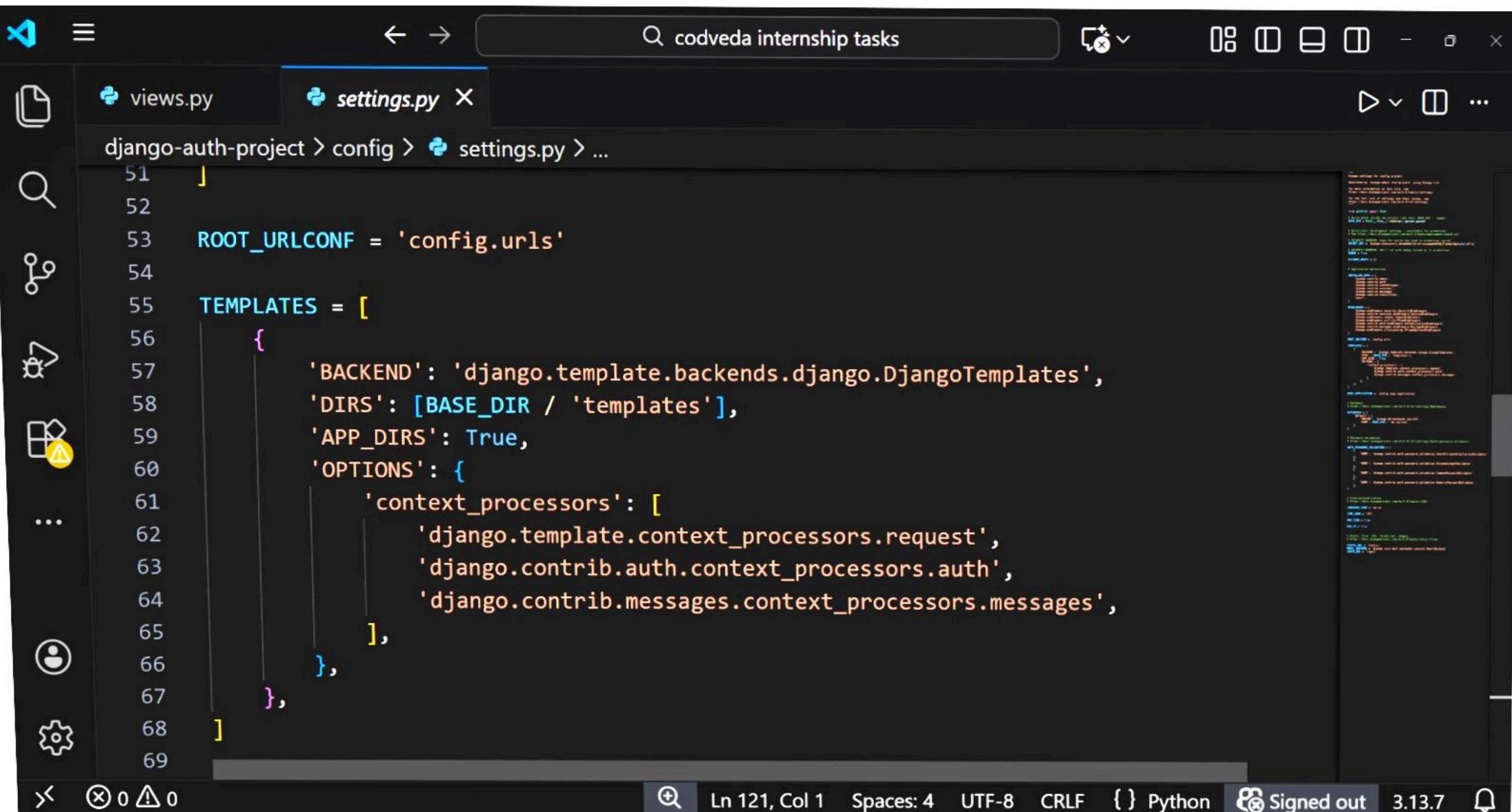


views.py settings.py X

django-auth-project > config > settings.py > ...

```
27
28     ALLOWED_HOSTS = []
29
30
31     # Application definition
32
33     INSTALLED_APPS = [
34         'django.contrib.admin',
35         'django.contrib.auth',
36         'django.contrib.contenttypes',
37         'django.contrib.sessions',
38         'django.contrib.messages',
39         'django.contrib.staticfiles',
40         'users',
41     ]
42
43     MIDDLEWARE = [
44         'django.middleware.security.SecurityMiddleware',
45         'django.contrib.sessions.middleware.SessionMiddleware',
```

Ln 121, Col 1 Spaces: 4 UTF-8 CRLF { } Python  Signed out 3.13.7 



views.py settings.py X

django-auth-project > config > settings.py > ...

```
51 ]
52
53 ROOT_URLCONF = 'config.urls'
54
55 TEMPLATES = [
56     {
57         'BACKEND': 'django.template.backends.django.DjangoTemplates',
58         'DIRS': [BASE_DIR / 'templates'],
59         'APP_DIRS': True,
60         'OPTIONS': {
61             'context_processors': [
62                 'django.template.context_processors.request',
63                 'django.contrib.auth.context_processors.auth',
64                 'django.contrib.messages.context_processors.messages',
65             ],
66         },
67     },
68 ]
69
```

Ln 121, Col 1 Spaces: 4 UTF-8 CRLF { } Python Signed out 3.13.7

views.py settings.py X

django-auth-project > config > settings.py > ...

```
106     LANGUAGE_CODE = 'en-us'  
107  
108     TIME_ZONE = 'UTC'  
109  
110     USE_I18N = True  
111  
112     USE_TZ = True  
113  
114  
115     # Static files (CSS, JavaScript, Images)  
116     # https://docs.djangoproject.com/en/6.0/howto/static-files/  
117  
118     STATIC_URL = 'static/'  
119     EMAIL_BACKEND = 'django.core.mail.backends.console.EmailBackend'  
120     LOGIN_URL = 'login'  
121  
122
```

Ln 121, Col 1 Spaces: 4 UTF-8 CRLF { } Python Signed out 3.13.7

Register

Username:

Malathi

Email:

malathi127@gmail.com

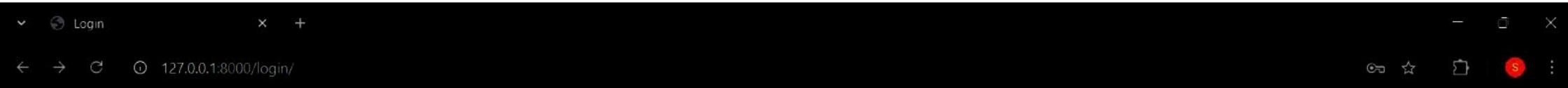
Password:

.....

Confirm Password:

Register

Already have an account? [Login](#)



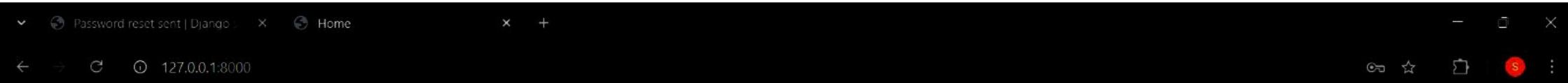
Login

Username:

Password:

Don't have an account? [Register](#)

[Forgot password?](#)



Welcome Home

Hello, Malathi 🎉

[Logout](#)



Django administration

Home > Password reset

Password reset

Forgotten your password? Enter your email address below, and we'll email instructions for setting a new one.

Email address:

malathi127@gmail.com

Send password reset e-mail

>Password reset sent | Django site

127.0.0.1:8000/password-reset/done/

Django administration

Home > Password reset

Password reset sent

We've emailed you instructions for setting your password, if an account exists with the email you entered. You should receive them shortly.

If you don't receive an email, please make sure you've entered the address you registered with, and check your spam folder.

```
C:\Windows\System32\cmd.e x + x Microsoft Windows [Version 10.0.26200.7462]
(c) Microsoft Corporation. All rights reserved.

C:\Users\aksha\OneDrive\codveda internship tasks\django-auth-project>python manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
December 20, 2025 - 20:16:13
Django version 5.2.9, using settings 'config.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.

WARNING: This is a development server. Do not use it in a production setting. Use a production WSGI or ASGI server instead.
For more information on production servers see: https://docs.djangoproject.com/en/5.2/howto/deployment/
[20/Dec/2025 20:16:24] "GET / HTTP/1.1" 200 168
Not Found: /favicon.ico
[20/Dec/2025 20:16:25] "GET /favicon.ico HTTP/1.1" 404 3988
[20/Dec/2025 20:16:29] "GET /logout/ HTTP/1.1" 302 0
[20/Dec/2025 20:16:29] "GET /login/ HTTP/1.1" 200 622
[20/Dec/2025 20:16:37] "GET /register/ HTTP/1.1" 200 755
[20/Dec/2025 20:18:09] "POST /register/ HTTP/1.1" 302 0
[20/Dec/2025 20:18:09] "GET /login/ HTTP/1.1" 200 696
[20/Dec/2025 20:18:26] "POST /register/ HTTP/1.1" 302 0
[20/Dec/2025 20:18:26] "GET /register/ HTTP/1.1" 200 824
[20/Dec/2025 20:18:35] "GET /register/ HTTP/1.1" 200 755
[20/Dec/2025 20:19:16] "POST /login/ HTTP/1.1" 302 0
[20/Dec/2025 20:19:16] "GET / HTTP/1.1" 200 168
[20/Dec/2025 20:19:29] "GET /logout/ HTTP/1.1" 302 0
[20/Dec/2025 20:19:29] "GET /login/ HTTP/1.1" 200 622
[20/Dec/2025 20:19:48] "GET /password-reset/ HTTP/1.1" 200 4068
[20/Dec/2025 20:19:48] "GET /static/admin/css/base.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/js/theme.js HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/dark_mode.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/forms.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/responsive.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/widgets.css HTTP/1.1" 304 0
Content-Type: text/plain; charset="utf-8"
MIME-Version: 1.0
Content-Transfer-Encoding: 8bit
Subject: Password reset on 127.0.0.1:8000
```

```
C:\Windows\System32\cmd.e x + x - o x

[20/Dec/2025 20:18:35] "GET /register/ HTTP/1.1" 200 755
[20/Dec/2025 20:19:16] "POST /login/ HTTP/1.1" 302 0
[20/Dec/2025 20:19:16] "GET / HTTP/1.1" 200 168
[20/Dec/2025 20:19:29] "GET /logout/ HTTP/1.1" 302 0
[20/Dec/2025 20:19:29] "GET /login/ HTTP/1.1" 200 622
[20/Dec/2025 20:19:48] "GET /password-reset/ HTTP/1.1" 200 4068
[20/Dec/2025 20:19:48] "GET /static/admin/css/base.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/js/theme.js HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/dark_mode.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/forms.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/responsive.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/widgets.css HTTP/1.1" 304 0
Content-Type: text/plain; charset="utf-8"
MIME-Version: 1.0
Content-Transfer-Encoding: 8bit
Subject: Password reset on 127.0.0.1:8000
From: webmaster@localhost
To: malathi127@gmail.com
Date: Sat, 20 Dec 2025 14:50:08 -0000
Message-ID: <176624220868.1752.3924256100404885866@Akshaya>

You're receiving this email because you requested a password reset for your user account at 127.0.0.1:8000.

Please go to the following page and choose a new password:

http://127.0.0.1:8000/reset/Mg/d14ltk-1536a95daa0db5dcf17c9445472da0f9/

In case you've forgotten, you are: Malathi
Thanks for using our site!
The 127.0.0.1:8000 team

-----
[20/Dec/2025 20:20:08] "POST /password-reset/ HTTP/1.1" 302 0
[20/Dec/2025 20:20:08] "GET /password-reset/done/ HTTP/1.1" 200 3638
```

>Password reset sent | Django site x Enter new password | Django site x +

127.0.0.1:8000/reset/Mg/set-password/

Django administration

Home > Password reset confirmation

Enter new password

Please enter your new password twice so we can verify you typed it in correctly.

New password:

Confirm password:

>Password reset sent | Django site x Password reset complete | Django site x +

127.0.0.1:8000/reset/done/ ...

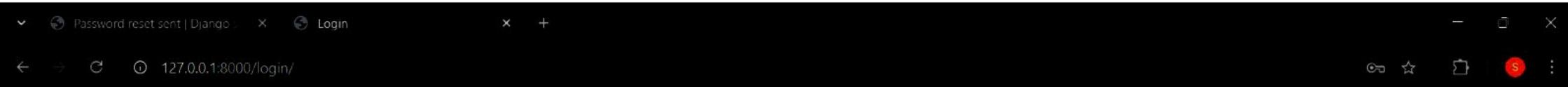
Django administration ...

Home > Password reset

Password reset complete

Your password has been set. You may go ahead and log in now.

[Log in](#)



Login

Username:

Password:

Don't have an account? [Register](#)

[Forgot password?](#)



Welcome Home

Hello, Malathi 🌟

[Logout](#)

C:\Windows\System32\cmd.e X + X

```
[20/Dec/2025 20:19:48] "GET /static/admin/js/theme.js HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/dark_mode.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/forms.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/responsive.css HTTP/1.1" 304 0
[20/Dec/2025 20:19:48] "GET /static/admin/css/widgets.css HTTP/1.1" 304 0
Content-Type: text/plain; charset="utf-8"
MIME-Version: 1.0
Content-Transfer-Encoding: 8bit
Subject: Password reset on 127.0.0.1:8000
From: webmaster@localhost
To: malathi127@gmail.com
Date: Sat, 20 Dec 2025 14:50:08 -0000
Message-ID: <176624220868.1752.3924256100404885866@Akshaya>

You're receiving this email because you requested a password reset for your user account at 127.0.0.1:8000.

Please go to the following page and choose a new password:
http://127.0.0.1:8000/reset/Mg/d14ltk-1536a95daa0db5dcf17c9445472da0f9/

In case you've forgotten, you are: Malathi
Thanks for using our site!
The 127.0.0.1:8000 team
```

```
[20/Dec/2025 20:20:08] "POST /password-reset/ HTTP/1.1" 302 0
[20/Dec/2025 20:20:08] "GET /password-reset/done/ HTTP/1.1" 200 3638
[20/Dec/2025 20:20:57] "GET /reset/Mg/d14ltk-1536a95daa0db5dcf17c9445472da0f9/ HTTP/1.1" 302 0
[20/Dec/2025 20:20:57] "GET /reset/Mg/set-password/ HTTP/1.1" 200 4527
[20/Dec/2025 20:21:45] "POST /reset/Mg/set-password/ HTTP/1.1" 302 0
[20/Dec/2025 20:21:45] "GET /reset/done/ HTTP/1.1" 200 3467
[20/Dec/2025 20:22:01] "GET /login/ HTTP/1.1" 200 622
[20/Dec/2025 20:22:33] "POST /login/ HTTP/1.1" 302 0
[20/Dec/2025 20:22:33] "GET / HTTP/1.1" 200 168
[20/Dec/2025 20:22:54] "GET /logout/ HTTP/1.1" 302 0
[20/Dec/2025 20:22:54] "GET /login/ HTTP/1.1" 200 622
```

codveda internship tasks

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New Sort View ...

Preview

Name	Status	Date modified	Type	Size
django-auth-project	●	20-12-2025 20:11	File folder	
A(2).py	●	04-12-2025 21:50	Python Source File	2 KB
A(3).py	●	04-12-2025 22:03	Python Source File	1 KB
B(1).py	●	03-12-2025 15:54	Python Source File	1 KB
B(2).py	●	03-12-2025 16:01	Python Source File	1 KB
B(3).py	●	03-12-2025 16:06	Python Source File	1 KB
decrypted_encrypted_text.txt	●	04-12-2025 21:46	Text Document	1 KB
encrypted_text.txt	●	04-12-2025 21:45	Text Document	1 KB
headlines.csv	●	04-12-2025 18:48	ET.Xls.6	1 KB
I(1).py	●	04-12-2025 18:39	Python Source File	3 KB
I(2).py	●	04-12-2025 18:49	Python Source File	1 KB
I(3).py	●	04-12-2025 21:23	Python Source File	1 KB
key.key	●	04-12-2025 21:45	KEY File	1 KB
tasks.json	●	04-12-2025 18:35	JSON Source File	1 KB
text.txt	●	03-12-2025 16:09	Text Document	1 KB

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TASK 2: BASIC FILE ENCRYPTION/DECRYPTION

```
from cryptography.fernet import Fernet
def generate_key():
    key = Fernet.generate_key()
    with open("key.key", "wb") as key_file:
        key_file.write(key)
def load_key():
    return open("key.key", "rb").read()
def encrypt_file():
    key = load_key()
    f = Fernet(key)
    filename = input("Enter file to encrypt: ")
    with open(filename, "rb") as file:
        data = file.read()
        encrypted = f.encrypt(data)
    with open("encrypted_" + filename, "wb") as file:
        file.write(encrypted)
    print("File encrypted successfully!")
def decrypt_file():
    key = load_key()
    f = Fernet(key)
    filename = input("Enter file to decrypt: ")
    with open(filename, "rb") as file:
        encrypted_data = file.read()
    decrypted = f.decrypt(encrypted_data)
    with open("decrypted_" + filename, "wb") as file:
        file.write(decrypted)
```

```
with open(filename, "rb") as file:
    data = file.read()
    encrypted = f.encrypt(data)
with open("encrypted_" + filename, "wb") as file:
    file.write(encrypted)
print("File encrypted successfully!")

def decrypt_file():
    key = load_key()
    f = Fernet(key)
    filename = input("Enter file to decrypt: ")
    with open(filename, "rb") as file:
        encrypted_data = file.read()
    decrypted = f.decrypt(encrypted_data)
    with open("decrypted_" + filename, "wb") as file:
        file.write(decrypted)
    print("File decrypted successfully!")

print("1.Generate Key\n2.Encrypt File\n3.Decrypt File")
choice = input("Choose an option: ")
if choice == "1":
    generate_key()
elif choice == "2":
    encrypt_file()
elif choice == "3":
    decrypt_file()
```

```
C:\Windows\System32\cmd.e X + X
Microsoft Windows [Version 10.0.26100.7171]
(c) Microsoft Corporation. All rights reserved.

C:\Users\aksha\OneDrive\codveda internship tasks>pip install cryptography
Requirement already satisfied: cryptography in c:\users\aksha\appdata\local\programs\python\python313\lib\site-packages (46.0.3)
Requirement already satisfied: cffi>=2.0.0 in c:\users\aksha\appdata\local\programs\python\python313\lib\site-packages (from cryptography) (2.0.0)
Requirement already satisfied: pycparser in c:\users\aksha\appdata\local\programs\python\python313\lib\site-packages (from cffi>=2.0.0->cryptography) (2.23)

[notice] A new release of pip is available: 25.2 -> 25.3
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\aksha\OneDrive\codveda internship tasks>python A(2).py
1.Generate Key
2.Encrypt File
3.Decrypt File
Choose an option: 1

C:\Users\aksha\OneDrive\codveda internship tasks>python A(2).py
1.Generate Key
2.Encrypt File
3.Decrypt File
Choose an option: 2
Enter file to encrypt: text.txt
File encrypted successfully!

C:\Users\aksha\OneDrive\codveda internship tasks>python A(2).py
1.Generate Key
2.Encrypt File
3.Decrypt File
Choose an option: 3
Enter file to decrypt: encrypted_text.txt
File decrypted successfully!

C:\Users\aksha\OneDrive\codveda internship tasks>
```

codveda internship tasks

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Preview

Name	Status	Date modified	Type	Size
A(2)	●	04-12-2025 21:28	Python File	2 KB
B(1)	●	03-12-2025 15:54	Python File	1 KB
B(2)	●	03-12-2025 16:01	Python File	1 KB
B(3)	●	03-12-2025 16:06	Python File	1 KB
decrypted_encrypted_text	●	04-12-2025 21:46	Text Document	1 KB
encrypted_text	●	04-12-2025 21:45	Text Document	1 KB
headlines.csv	●	04-12-2025 18:48	ET.Xls.6	1 KB
I(1)	●	04-12-2025 18:39	Python File	3 KB
I(2)	●	04-12-2025 18:49	Python File	1 KB
I(3)	●	04-12-2025 21:23	Python File	1 KB
key.key	●	04-12-2025 21:45	KEY File	1 KB
tasks	●	04-12-2025 18:35	JSON Source File	1 KB
text	●	03-12-2025 16:09	Text Document	1 KB

Select a file to preview.

13 items |

TASK 3: N-QUEENS PROBLEM

A(3).py - C:/Users/aksha/OneDrive/codveda internship tasks/A(3).py (3.13.7)

```
File Edit Format Run Options Window Help

def is_safe(board, row, col, n):
    for i in range(row):
        if board[i] == col:
            return False
    for i, j in zip(range(row-1, -1, -1), range(col-1, -1, -1)):
        if board[i] == j:
            return False
    for i, j in zip(range(row-1, -1, -1), range(col+1, n)):
        if board[i] == j:
            return False
    return True

def solve_nqueens(board, row, n):
    if row == n:
        print("\nSolution:\n")
        for r in range(n):
            for c in range(n):
                if board[r] == c:
                    print("Q", end="\t")
                else:
                    print(".", end="\t")
            print("\n")
        return True
    for col in range(n):
        if is_safe(board, row, col, n):
            board[row] = col
```

IDLE Shell 3.13.7

```
File Edit Shell Debug Options Window Help

Python 3.13.7 (tags/v3.13.7:bce1c3, Aug 14 2025, 14:15:11) [MSC v.1944 64 bit (AMD64)]
on win32
Enter "help" below or click "Help" above for more information.

>>>
===== RESTART: C:/Users/aksha/OneDrive/codveda internship tasks/A(3).py =====
Enter number of queens: 5

Solution:

Q . . . .
. . . Q . .
. . . . Q .
. Q . . .
. . . . Q .
. . . Q .
```

THE END