

# Python mini projects

## Password Generator

```
main.py
1 import random
2 import string
3
4 def generate_password(length=12):
5     characters = string.ascii_letters + string.digits + string.punctuation
6     password = ''.join(random.choice(characters) for _ in range(length))
7     return password
8 print("Generated Password:", generate_password(12))
```

input

Generated Password: =4Hu6w\$!OSIj

...Program finished with exit code 0  
Press ENTER to exit console.

## To-do List (CLI)

| main.py  | Run        | Output  |
|--|------------|---|
| <pre>2- while True: 3     print("\n1. Add Task\n2. View Tasks\n3. Remove Task\n4.     Exit") 4     choice = input("Enter choice: ") 5-     if choice == "1": 6         task = input("Enter task: ") 7         tasks.append(task) 8         print("Task added!") 9-     elif choice == "2": 10        print("\nTo-Do List:") 11        for idx, task in enumerate(tasks, 1): 12            print(f"{idx}. {task}") 13-     elif choice == "3": 14        task_num = int(input("Enter task number to remove: ")) 15-        if 0 &lt; task_num &lt;= len(tasks): 16            tasks.pop(task_num - 1) 17            print("Task removed!") 18-     elif choice == "4": 19        break 20-     else: 21        print("Invalid choice. Try again.") 22</pre> | <p>Run</p> | <p>1. Add Task<br/>2. View Tasks<br/>3. Remove Task<br/>4. Exit<br/>Enter choice: 1<br/>Enter task: Assessment at 1pm<br/>Task added!</p> <p>1. Add Task<br/>2. View Tasks<br/>3. Remove Task<br/>4. Exit<br/>Enter choice: 2</p> <p>To-Do List:<br/>1. Assessment at 1pm</p> <p>1. Add Task<br/>2. View Tasks<br/>3. Remove Task</p> |

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## Weather App (API-based)

```
main.py
1 import requests
2
3 API_KEY = "bd5e378503939ddaee76f12ad7a97608"
4 city = input("Enter city name: ")
5 url = f"http://api.openweathermap.org/data/2.5/weather?q={city}&appid={API_KEY}&units=metric"
6
7 response = requests.get(url).json()
8
9 if response["cod"] == 200:
10     print(f"City: {response['name']}")
11     print(f"Temperature: {response['main']['temp']}°C")
12     print(f"Weather: {response['weather'][0]['description']}")
13 else:
14     print("City not found!")
```

input

Enter city name: Paris  
City: Paris  
Temperature: 5.29°C  
Weather: overcast clouds

## Number Guessing Game

```
main.py
1 import random
2
3 number = random.randint(1, 100)
4
5 while True:
6     guess = int(input("Guess the number (1-100): "))
7     if guess < number:
8         print("Too low! Try again.")
9     elif guess > number:
10        print("Too high! Try again.")
11    else:
12        print("Congratulations! You guessed it right.")
13        break
```

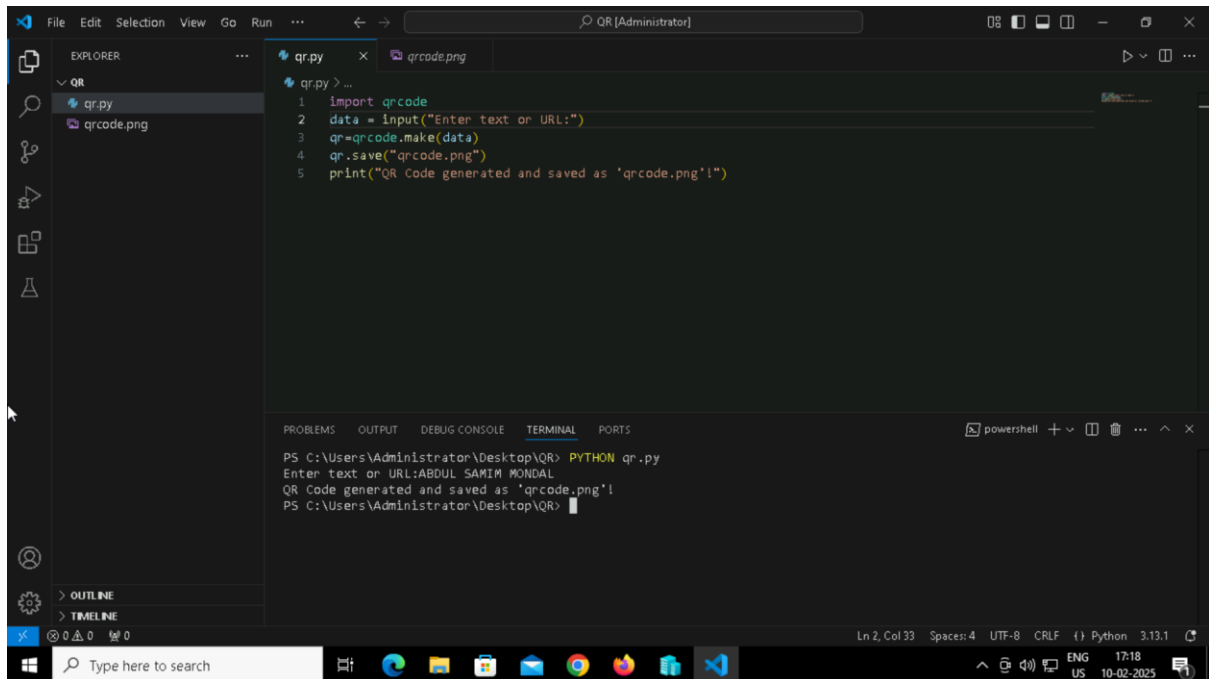
input

Guess the number (1-100): 4  
Congratulations! You guessed it right.

...Program finished with exit code 0  
Press ENTER to exit console.

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## QR CODE GENERATOR



This screenshot shows the Visual Studio Code editor with a Python script named `qr.py` and a terminal window. The script uses the `qrcode` library to generate a QR code from user input. The terminal shows the command `PYTHON qr.py` being executed, followed by the input `ABDUL SAMIM MONDAL` and the output `QR Code generated and saved as 'qrcode.png'!`.

```
1 import qrcode
2 data = input("Enter text or URL:")
3 qr=qrcode.make(data)
4 qr.save("qrcode.png")
5 print("QR Code generated and saved as 'qrcode.png'!")
```

PS C:\Users\Administrator\Desktop\QR> PYTHON qr.py  
Enter text or URL:ABDUL SAMIM MONDAL  
QR Code generated and saved as 'qrcode.png'!  
PS C:\Users\Administrator\Desktop\QR>

