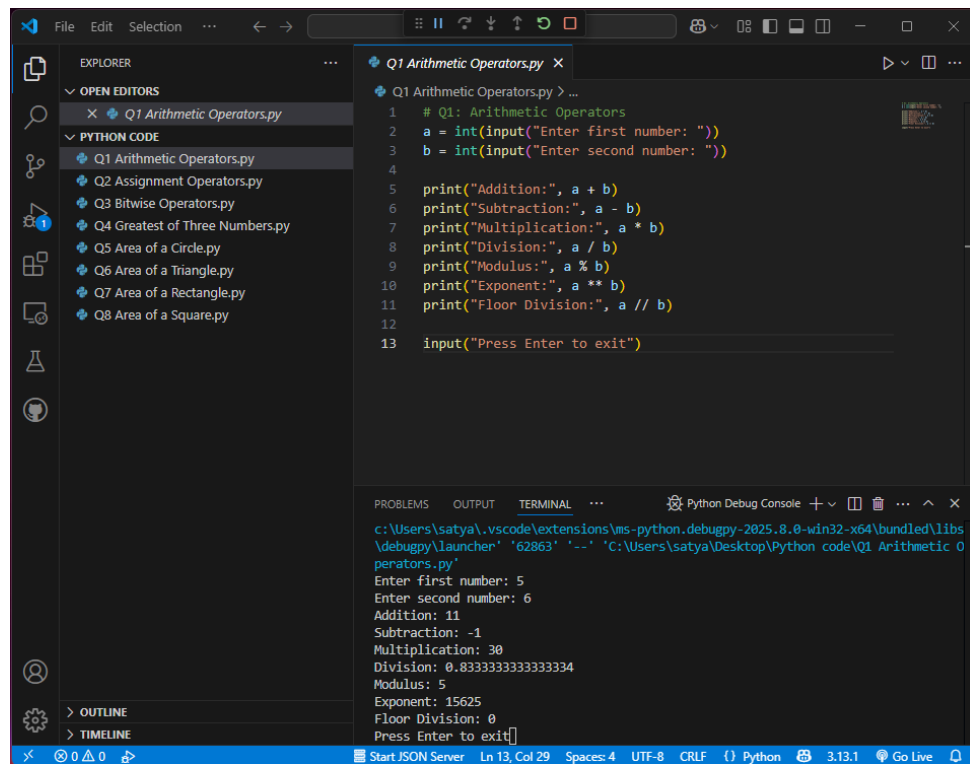


Q1: Arithmetic Operators



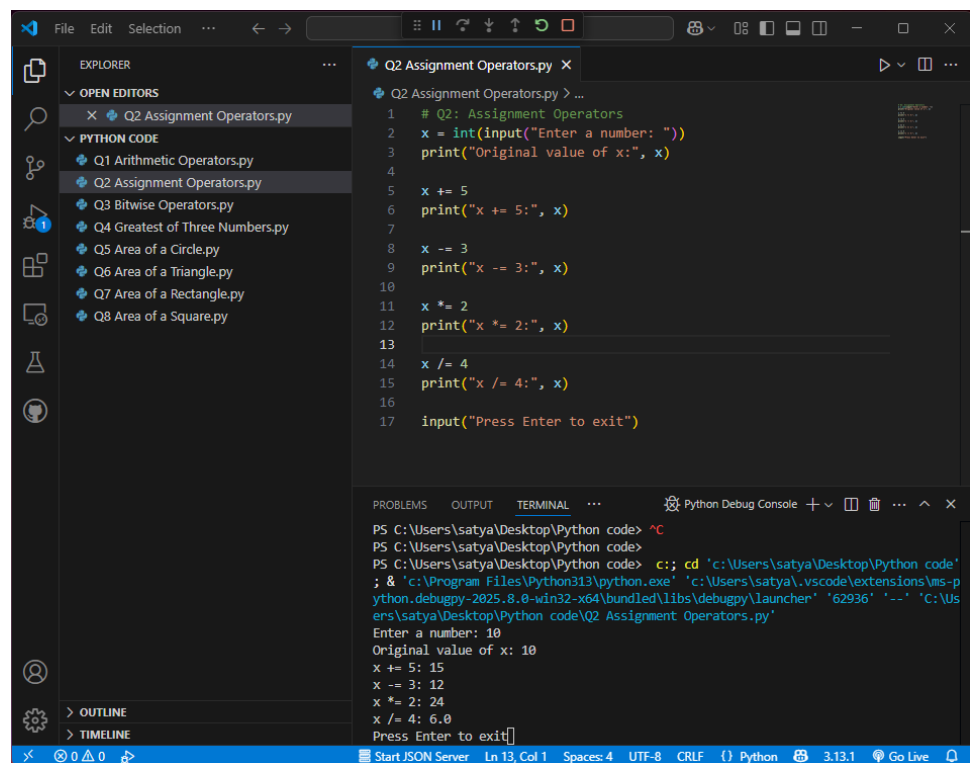
The screenshot shows the Visual Studio Code interface. The Explorer panel on the left lists several Python files, with 'Q1 Arithmetic Operators.py' selected. The main editor displays the code for this file. The code prompts the user to enter two numbers and then performs addition, subtraction, multiplication, division, modulus, exponentiation, and floor division. The output window at the bottom shows the execution results for the input values 5 and 6.

```
1 # Q1: Arithmetic Operators
2 a = int(input("Enter first number: "))
3 b = int(input("Enter second number: "))
4
5 print("Addition:", a + b)
6 print("Subtraction:", a - b)
7 print("Multiplication:", a * b)
8 print("Division:", a / b)
9 print("Modulus:", a % b)
10 print("Exponent:", a ** b)
11 print("Floor Division:", a // b)
12
13 input("Press Enter to exit")
```

Output:

```
c:\Users\satya\.vscode\extensions\ms-python.debugpy-2025.8.0-win32-x64\bundled\libs\
debugpy\launcher' '62863' '--' 'C:\Users\satya\Desktop\Python code\Q1 Arithmetic 0
perators.py'
Enter first number: 5
Enter second number: 6
Addition: 11
Subtraction: -1
Multiplication: 30
Division: 0.8333333333333334
Modulus: 5
Exponent: 15625
Floor Division: 0
Press Enter to exit[]
```

Q2: Assignment Operators



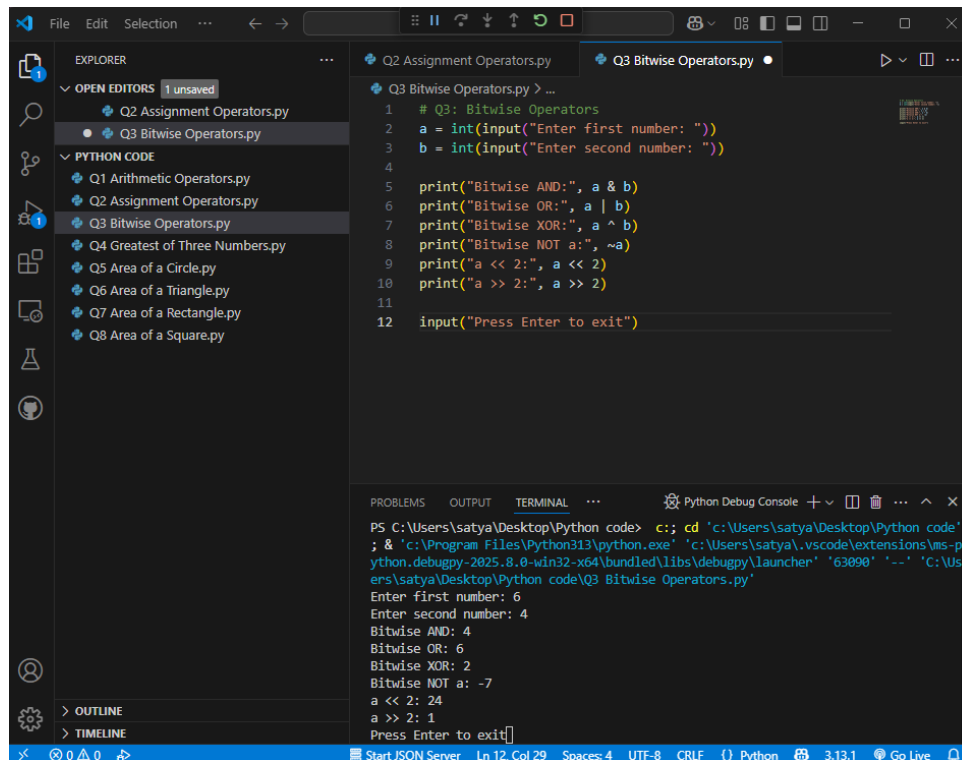
The screenshot shows the Visual Studio Code interface. The Explorer panel on the left lists several Python files, with 'Q2 Assignment Operators.py' selected. The main editor displays the code for this file. The code prompts the user to enter a number and then performs various assignment operations: incrementing by 5, decrementing by 3, multiplying by 2, and dividing by 4. The output window at the bottom shows the execution results for the input value 10.

```
1 # Q2: Assignment Operators
2 x = int(input("Enter a number: "))
3 print("Original value of x:", x)
4
5 x += 5
6 print("x += 5:", x)
7
8 x -= 3
9 print("x -= 3:", x)
10
11 x *= 2
12 print("x *= 2:", x)
13
14 x /= 4
15 print("x /= 4:", x)
16
17 input("Press Enter to exit")
```

Output:

```
PS C:\Users\satya\Desktop\Python code> ^C
PS C:\Users\satya\Desktop\Python code>
PS C:\Users\satya\Desktop\Python code> c.; cd 'C:\Users\satya\Desktop\Python code'
; & 'c:\Program Files\Python313\python.exe' 'c:\Users\satya\.vscode\extensions\ms-p
ython.debugpy-2025.8.0-win32-x64\bundled\libs\debugpy\launcher' '62936' '--' 'C:\Us
ers\satya\Desktop\Python code\Q2 Assignment Operators.py'
Enter a number: 10
Original value of x: 10
x += 5: 15
x -= 3: 12
x *= 2: 24
x /= 4: 6.0
Press Enter to exit[]
```

Q3: Bitwise Operators

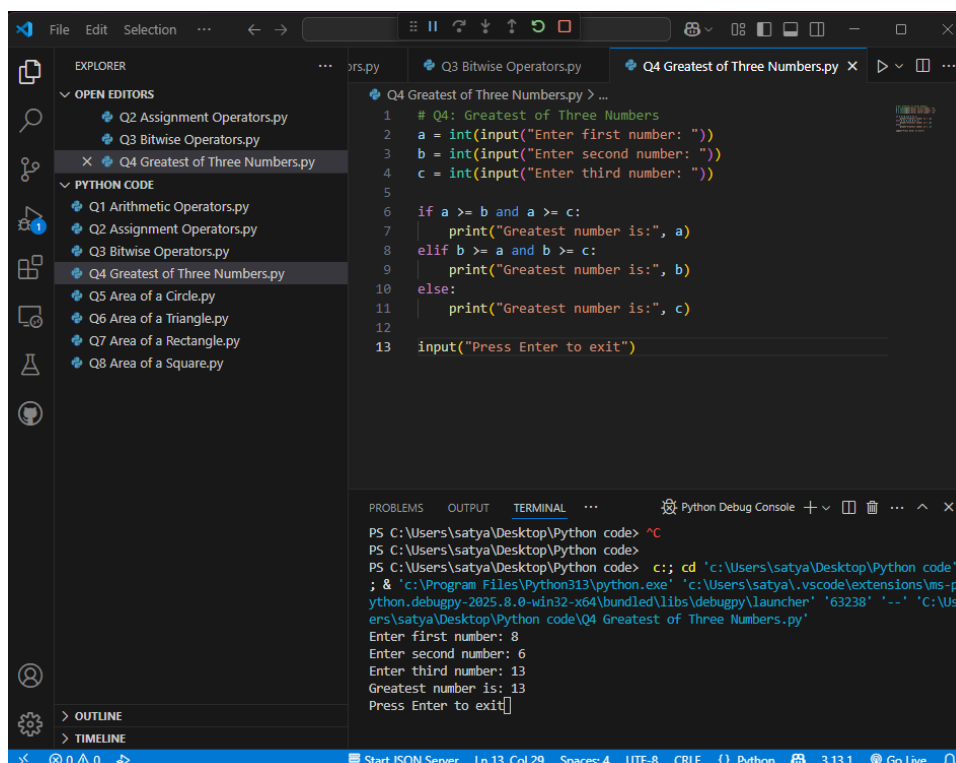


The screenshot shows the Visual Studio Code editor with the file `Q3 Bitwise Operators.py` open. The code defines two integers, `a` and `b`, and performs several bitwise operations: AND, OR, XOR, NOT, left shift, and right shift. The terminal window at the bottom shows the execution of the program, where the user enters the first number as 6 and the second number as 4. The output displays the results of the bitwise operations: Bitwise AND: 4, Bitwise OR: 6, Bitwise XOR: 2, Bitwise NOT a: -7, a << 2: 24, and a >> 2: 1.

```
1 # Q3: Bitwise Operators
2 a = int(input("Enter first number: "))
3 b = int(input("Enter second number: "))
4
5 print("Bitwise AND:", a & b)
6 print("Bitwise OR:", a | b)
7 print("Bitwise XOR:", a ^ b)
8 print("Bitwise NOT a:", ~a)
9 print("a << 2:", a << 2)
10 print("a >> 2:", a >> 2)
11
12 input("Press Enter to exit")
```

```
PS C:\Users\satya\Desktop\Python code> c::; cd 'c:\Users\satya\Desktop\Python code'
; & 'c:\Program Files\Python313\python.exe' 'c:\Users\satya\.vscode\extensions\ms-p
ython.debugpy-2025.8.0-win32-x64\bundle\libs\debugpy\launcher' '63090' '--' 'C:\Us
ers\satya\Desktop\Python code\Q3 Bitwise Operators.py'
Enter first number: 6
Enter second number: 4
Bitwise AND: 4
Bitwise OR: 6
Bitwise XOR: 2
Bitwise NOT a: -7
a << 2: 24
a >> 2: 1
Press Enter to exit
```

Q4: Greatest of Three Numbers

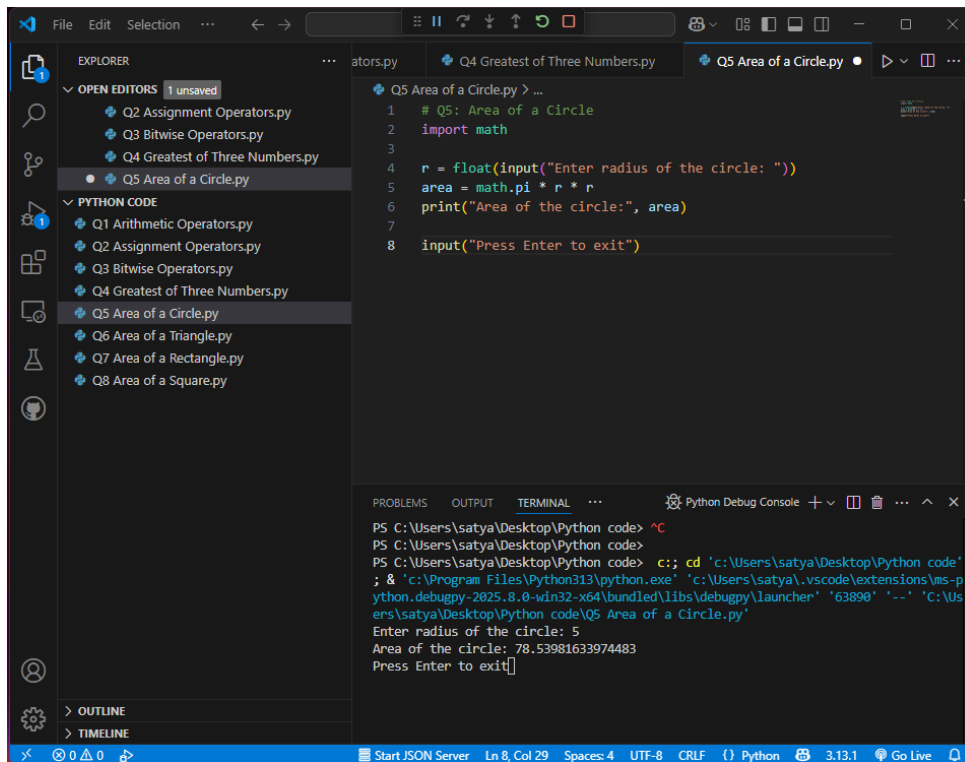


The screenshot shows the Visual Studio Code editor with the file `Q4 Greatest of Three Numbers.py` open. The code prompts the user to enter three numbers and then uses conditional statements to determine the greatest number among them. The terminal window shows the execution of the program, where the user enters the first number as 8, the second as 6, and the third as 13. The output correctly identifies 13 as the greatest number.

```
1 # Q4: Greatest of Three Numbers
2 a = int(input("Enter first number: "))
3 b = int(input("Enter second number: "))
4 c = int(input("Enter third number: "))
5
6 if a >= b and a >= c:
7     print("Greatest number is:", a)
8 elif b >= a and b >= c:
9     print("Greatest number is:", b)
10 else:
11     print("Greatest number is:", c)
12
13 input("Press Enter to exit")
```

```
PS C:\Users\satya\Desktop\Python code> ^C
PS C:\Users\satya\Desktop\Python code>
PS C:\Users\satya\Desktop\Python code> c::; cd 'c:\Users\satya\Desktop\Python code'
; & 'c:\Program Files\Python313\python.exe' 'c:\Users\satya\.vscode\extensions\ms-p
ython.debugpy-2025.8.0-win32-x64\bundle\libs\debugpy\launcher' '63238' '--' 'C:\Us
ers\satya\Desktop\Python code\Q4 Greatest of Three Numbers.py'
Enter first number: 8
Enter second number: 6
Enter third number: 13
Greatest number is: 13
Press Enter to exit
```

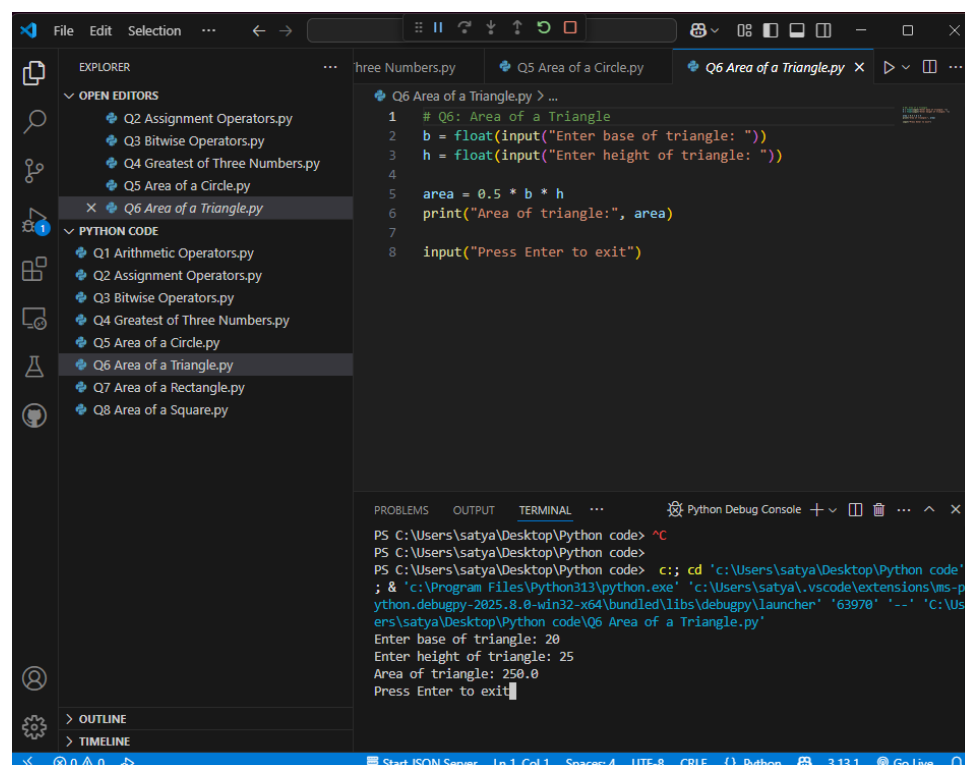
Q5: Area of a Circle



```
1 # Q5: Area of a Circle
2 import math
3
4 r = float(input("Enter radius of the circle: "))
5 area = math.pi * r * r
6 print("Area of the circle:", area)
7
8 input("Press Enter to exit")
```

```
PS C:\Users\satya\Desktop\Python code> ^C
PS C:\Users\satya\Desktop\Python code>
PS C:\Users\satya\Desktop\Python code> c;; cd 'c:\Users\satya\Desktop\Python code'
; & 'c:\Program Files\Python313\python.exe' 'c:\Users\satya\.vscode\extensions\ms-p
ython.debugpy-2025.8.0-win32-x64\bundle\libs\debugpy\launcher' '63890' '--' 'C:\Us
ers\satya\Desktop\Python code\Q5 Area of a Circle.py'
Enter radius of the circle: 5
Area of the circle: 78.53981633974483
Press Enter to exit
```

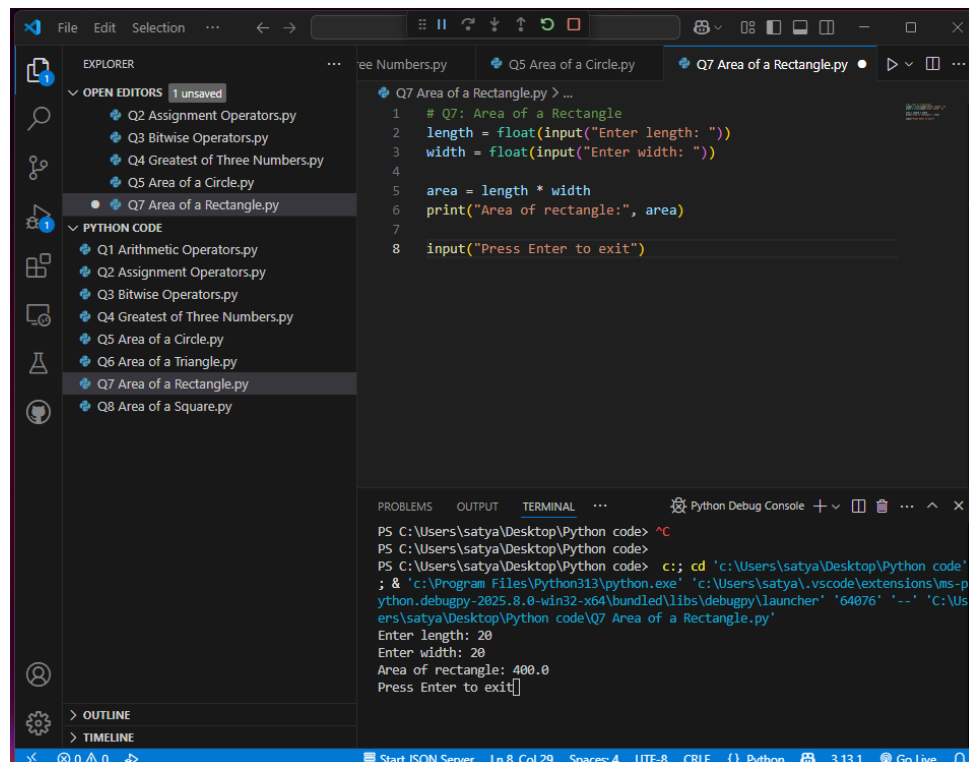
Q6: Area of a Triangle



```
1 # Q6: Area of a Triangle
2 b = float(input("Enter base of triangle: "))
3 h = float(input("Enter height of triangle: "))
4
5 area = 0.5 * b * h
6 print("Area of triangle:", area)
7
8 input("Press Enter to exit")
```

```
PS C:\Users\satya\Desktop\Python code> ^C
PS C:\Users\satya\Desktop\Python code>
PS C:\Users\satya\Desktop\Python code> c;; cd 'c:\Users\satya\Desktop\Python code'
; & 'c:\Program Files\Python313\python.exe' 'c:\Users\satya\.vscode\extensions\ms-p
ython.debugpy-2025.8.0-win32-x64\bundle\libs\debugpy\launcher' '63970' '--' 'C:\Us
ers\satya\Desktop\Python code\Q6 Area of a Triangle.py'
Enter base of triangle: 20
Enter height of triangle: 25
Area of triangle: 250.0
Press Enter to exit
```

Q7: Area of a Rectangle

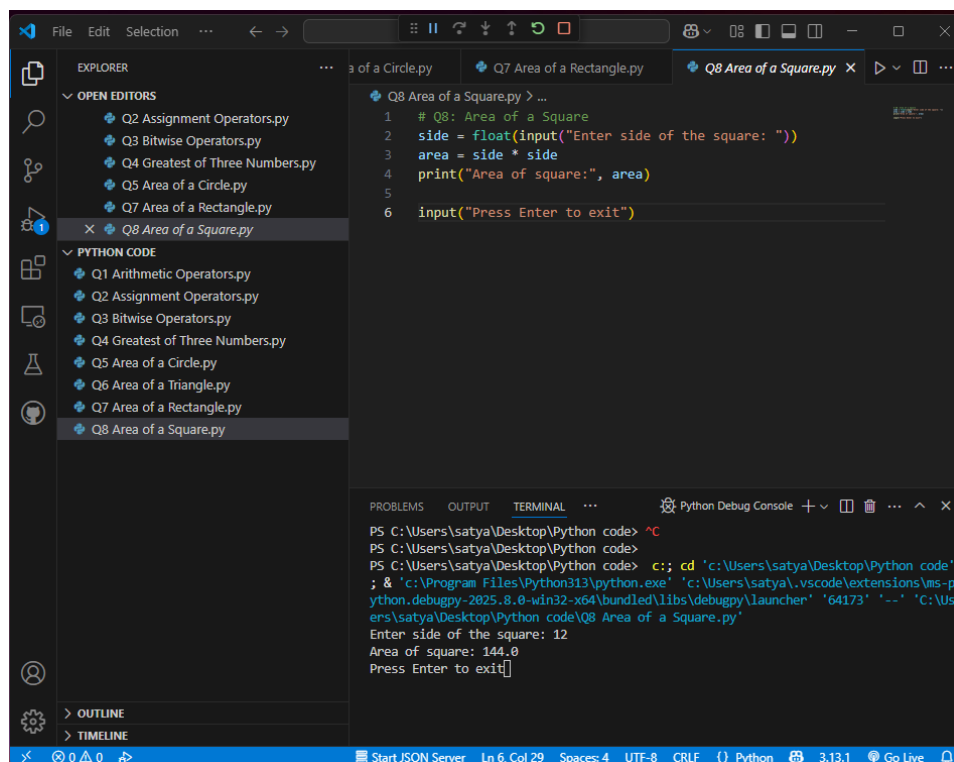


The screenshot shows the Visual Studio Code interface. The Explorer panel on the left lists files under 'OPEN EDITORS' and 'PYTHON CODE'. The file 'Q7 Area of a Rectangle.py' is selected. The main editor displays the code for this file. The TERMINAL panel at the bottom shows the command prompt output, including the execution of the Python script and the user input for length and width.

```
1 # Q7: Area of a Rectangle
2 length = float(input("Enter length: "))
3 width = float(input("Enter width: "))
4
5 area = length * width
6 print("Area of rectangle:", area)
7
8 input("Press Enter to exit")
```

```
PS C:\Users\satya\Desktop\Python code> ^C
PS C:\Users\satya\Desktop\Python code>
PS C:\Users\satya\Desktop\Python code> c:; cd 'c:\Users\satya\Desktop\Python code'
; & 'c:\Program Files\Python313\python.exe' 'c:\Users\satya\.vscode\extensions\ms-p
ython.debugpy-2025.8.0-win32-x64\bundle\libs\debugpy\launcher' '64876' '-' 'C:\Us
ers\satya\Desktop\Python code\Q7 Area of a Rectangle.py'
Enter length: 20
Enter width: 20
Area of rectangle: 400.0
Press Enter to exit
```

Q8: Area of a Square



The screenshot shows the Visual Studio Code interface. The Explorer panel on the left lists files under 'OPEN EDITORS' and 'PYTHON CODE'. The file 'Q8 Area of a Square.py' is selected. The main editor displays the code for this file. The TERMINAL panel at the bottom shows the command prompt output, including the execution of the Python script and the user input for the side of the square.

```
1 # Q8: Area of a Square
2 side = float(input("Enter side of the square: "))
3 area = side * side
4 print("Area of square:", area)
5
6 input("Press Enter to exit")
```

```
PS C:\Users\satya\Desktop\Python code> ^C
PS C:\Users\satya\Desktop\Python code>
PS C:\Users\satya\Desktop\Python code> c:; cd 'c:\Users\satya\Desktop\Python code'
; & 'c:\Program Files\Python313\python.exe' 'c:\Users\satya\.vscode\extensions\ms-p
ython.debugpy-2025.8.0-win32-x64\bundle\libs\debugpy\launcher' '64173' '-' 'C:\Us
ers\satya\Desktop\Python code\Q8 Area of a Square.py'
Enter side of the square: 12
Area of square: 144.0
Press Enter to exit
```