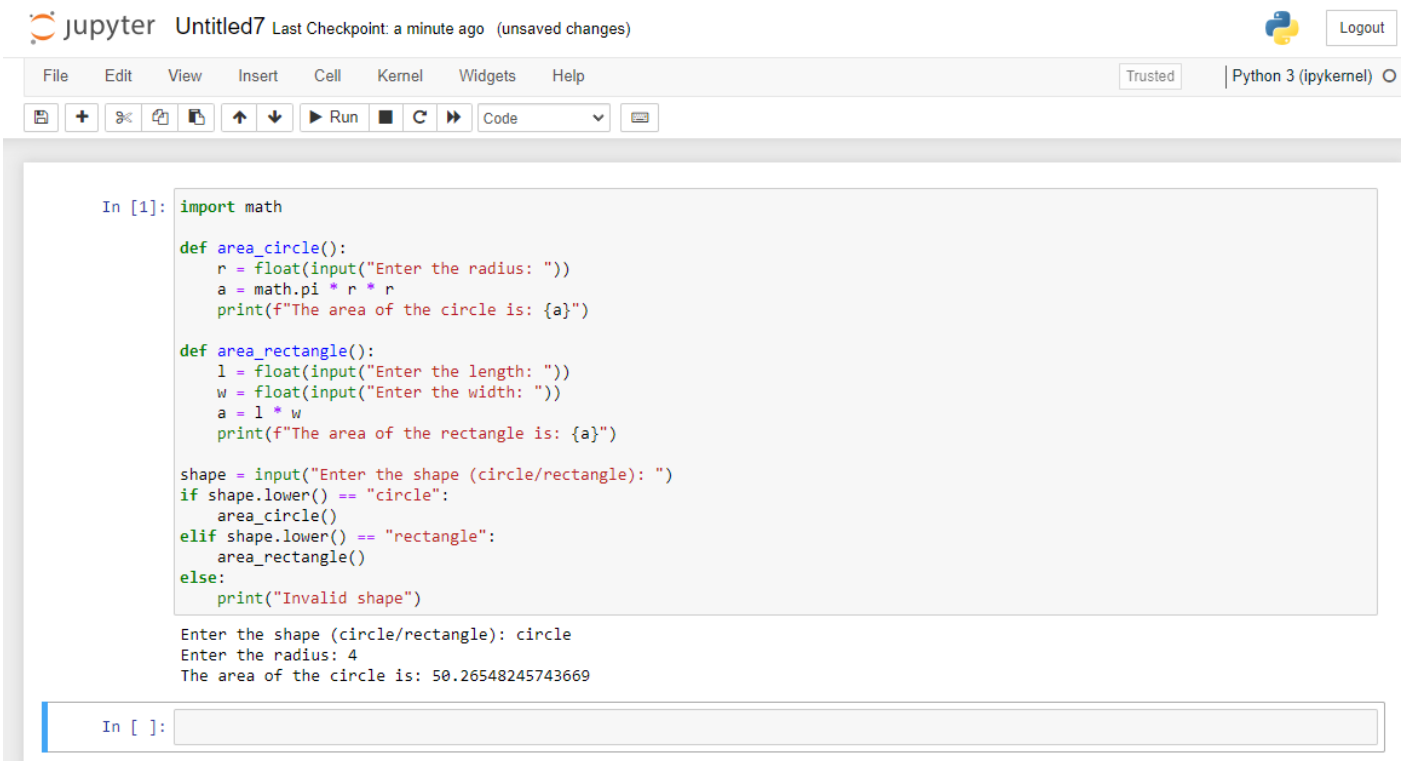
AREA OF A SHAPE ASSIGNMENT



C: > Users > User > Desktop > J math2.java > ...

```java
import java.util.Scanner;

public class Main {
    Run main | Debug main
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.println("Enter the shape (circle/rectangle): ");
        String shape = scanner.nextLine();

        if (shape.equalsIgnoreCase("circle")) {
            System.out.print("Enter the radius: ");
            double r = scanner.nextDouble();
            double a = Math.PI * r * r;
            System.out.printf("The area of the circle is: %.2f%n", a);
        } else if (shape.equalsIgnoreCase("rectangle")) {
            System.out.print("Enter the length: ");
            double l = scanner.nextDouble();
            System.out.print("Enter the width: ");
            double w = scanner.nextDouble();
            double a = l * w;
            System.out.printf("The area of the rectangle is: %.2f%n", a);
        } else {
            System.out.println("Invalid shape");
        }
    }
}
```

PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Listening on 52304
User program running
Enter the shape (circle/rectangle):
circle

Enter the radius:
5

User program finished
The area of the circle is: 78.54
```

> Please start a debug session to evaluate expressions

Desktop > math3.cpp > main()

```cpp
#include <iostream>
#include <cmath>

void area_circle() {
    double r, a;
    std::cout << "Enter the radius: ";
    std::cin >> r;
    a = M_PI * r * r;
    std::cout << "The area of the circle is: " << a << std::endl;
}

void area_rectangle() {
    double l, w, a;
    std::cout << "Enter the length: ";
    std::cin >> l;
    std::cout << "Enter the width: ";
    std::cin >> w;
    a = l * w;
    std::cout << "The area of the rectangle is: " << a << std::endl;
}

int main() {
    std::string shape;
    std::cout << "Enter the shape (circle/rectangle): ";
    std::cin >> shape;

    if (shape == "circle" || shape == "Circle") {
        area_circle();
    } else if (shape == "rectangle" || shape == "Rectangle") {
        area_rectangle();
    } else {
        std::cout << "Invalid shape" << std::endl;
    }

    return 0;
}
```