# The George Washington University

**Advanced Software Paradigms (CSCI 6221.10)**

Homework Assignment #5

Date: 26 February 2024


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**Submitted to:**

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## Steps for execution:

1. The provided program is written in **Python**. To run it, use any online Python compiler, for example, https://www.programiz.com/python-programming/online-compiler/
2. Copy the code from the attached source code .txt file and paste it into the code area in the online compiler.
3. Click the "Run" button in the compiler.
4. Review the output/result displayed by the compiler, as illustrated in Figure 1.

## Screenshots:

1. The Main Menu of the program.

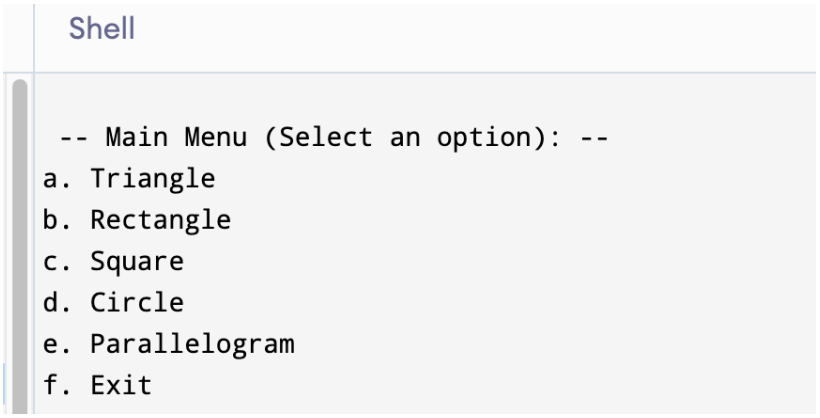


*Figure 1: Main Menu*

2. When a correct shape is selected

```
 -- Main Menu (Select an option): --
a. Triangle
b. Rectangle
c. Square
d. Circle
e. Parallelogram
f. Exit
Enter your choice: a
Your choice was: Triangle
Enter base of the triangle (feet): 2
Enter height of the triangle (feet): 3
The area of triangle with base 2.0 feet and height 3.0 feet is 3.0 sq.feet
```

*Figure 2: Result when a correct shape is selected*

3. When an incorrect shape option is selected

```
 -- Main Menu (Select an option): --
a. Triangle
b. Rectangle
c. Square
d. Circle
e. Parallelogram
f. Exit
Enter your choice: h
Invalid! (Please select one of a, b, c, d, e or f)
```

*Figure 3: Result when incorrect shape option is selected*

4. When the Triangle shape is selected

```
 -- Main Menu (Select an option): --
a. Triangle
b. Rectangle
c. Square
d. Circle
e. Parallelogram
f. Exit
Enter your choice: a
Your choice was: Triangle
Enter base of the triangle (feet): e
Invalid input!!! Please enter a number.
Enter base of the triangle (feet): 2
Enter height of the triangle (feet): 3
The area of triangle with base 2.0 feet and height 3.0 feet is 3.0 sq.feet
```

*Figure 4: Result when the Triangle shape is selected*

5. When the Rectangle shape is selected

```
 -- Main Menu (Select an option): --
a. Triangle
b. Rectangle
c. Square
d. Circle
e. Parallelogram
f. Exit
Enter your choice: b
Your choice was: Rectangle
Enter length of the rectangle (in feet): 3
Enter width of the rectangle (in feet): 4
The area of rectangle with length 3.0 feet and width 4.0 feet is 12.0 sq.feet
```

*Figure 5: Result when the Rectangle shape is selected*

6. When the Square shape is selected

```
 -- Main Menu (Select an option): --
a. Triangle
b. Rectangle
c. Square
d. Circle
e. Parallelogram
f. Exit
Enter your choice: c
Your choice was: Square
Enter side of the square (feet): 5
The area of square with side 5.0 feet is 25.0 sq.feet
```

*Figure 6: Result when the Square shape is selected*

7. When the Circle shape is selected

```
 -- Main Menu (Select an option): --
a. Triangle
b. Rectangle
c. Square
d. Circle
e. Parallelogram
f. Exit
Enter your choice: d
Your choice was: Circle
Enter radius of the circle (feet): 3.33
The area of circle with radius 3.33 feet is 34.836777351 sq.feet
```

*Figure 7: Result when the Circle shape is selected*

8. When the parallelogram shape is selected

```
 -- Main Menu (Select an option): --
a. Triangle
b. Rectangle
c. Square
d. Circle
e. Parallelogram
f. Exit
Enter your choice: e
Your choice was: Parallelogram
Enter base of the parallelogram (feet): 4
Enter height of the parallelogram (feet): 6
The area of parallelogram with base 4.0 feet and height 6.0 feet is 24.0 sq.feet
```

*Figure 8: Result when the Parallelogram shape is selected*

9. When the exit option is selected

```
 -- Main Menu (Select an option): --
a. Triangle
b. Rectangle
c. Square
d. Circle
e. Parallelogram
f. Exit
Enter your choice: f
 -- You choose exit, Program is ending... --
```

*Figure 9: Result when Exit option is selected*