Lab 6 – Functions

Learning Objective

Write a Python program that uses defines and calls functions with input parameters.

Lab Description

Write a program that displays one of two possible shapes based on user input.

Steps

1. In PyCharm (Community Edition), open your existing ITP115 project.
2. Under the Labs directory, create a new Python file called lab6_*last_first*.py where *last* is your last/family name and *first* is your preferred first name. Use all lowercase letters.
3. At the top of the file, put comments in the following format and replace the name, email, and section with your actual information:

```
# Name, USC email
# ITP 115, Fall 2022
# Section: number or nickname
# Lab 6
```

4. Write a function entitled **`printRectangle()`**
   - This function should have two parameters: **`length`** and **`width`** which are both integers.
   - Use the values of these parameters to print a rectangle using dashes (**`-`**) and vertical bars (**`|`**).
5. Write a function entitled **`printSquare()`**
   - This function should have one parameter: **`size`** which is an integer.
   - Use the parameter to print a square using **`size`** for the length and width. (It may not look like a square.)
6. Write and call a function entitled **`main()`** that has no parameters.

- Ask the user to choose between two shapes: rectangle or square. Allow the user to enter upper or lower case letters. Use "> " for the prompt. The user input is shown in green text.

```
What shape would you like to print?
r) rectangle
s) square
> r
```

- If the user chooses rectangle, ask them to enter the length and the width. Call the **printRectangle()** function.

```
Enter the length: 5
Enter the width: 3
```

- If the user chooses square, ask them to enter the length of one side. Call the **printSquare()** function.

```
Enter the side: 4
```

7. Upload the Python file named **lab6_*last_first*.py** to your Blackboard section:
   - On Blackboard, navigate to the appropriate lab item.
   - Click on the specific item for this lab.
   - Click on the **Browse Local Files** button and select the file.
   - Click the **Submit** button.

Additional Notes

- Each lab is worth 1 point. To earn the point, make sure your program runs correctly and that you submit it correctly.

Sample Output

Example 1:

```
What shape would you like to print?
r) rectangle
s) square
> R
Enter the length: 5
```

```
Enter the width: 3
 ---
|   |
|   |
|   |
|   |
|   |
 ---
```

Example 2:

```
What shape would you like to print?
r) rectangle
s) square
> s
Enter the side: 4
 ----
|    |
|    |
|    |
|    |
 ----
```

Example 3:

```
What shape would you like to print?
r) rectangle
s) square
> t
That shape is not supported.
```

Challenge:

1. Write a function called getQuadArea() that takes a length and width as parameters and returns the area of the regular quadrilateral.