

CPSC 121
Lab 3
Fall 2018
Eric May

Printing Shapes

Create a program that:

1. Prompt the user to choose between a rectangle and a triangle
2. Prompt user for shape parameters
 - a. Rectangle
 - i. Ask user to choose between supplying a word or a width
 - ii. Ask user for height
 - b. Triangle
 - i. Ask user to choose between supplying a word or a width
 - ii. Ask whether the triangle points up or down
3. Print the desired shape
 - a. Ask the user whether they want to print to a file, "myshape.txt", or to cout
 - i. This can be accomplished using fewer lines of code by using the base ostream type as an argument, which ofstream and cout are both derived from. [See here](#)
4. Ask the user if they would like to exit, or return to step 1

You must use at least two functions in this lab. How involved you get with them (including arguments, creating helper functions) is left up to you.

Points:

- 2 - Documentation, readability, format
- 2 - Proper program flow (conditionals, loops, etc)
- 1 - File output
- 1 - Functions
- 2 - Filename and Header
- 2 - Output testing

Header

```
//<Your Name>  
//CPSC 121 Lab 3  
//<MM/DD/YY>
```

Filename

<Last Name><First Initial>lab3.cpp

For example, my assignment would be named MayElab3.cpp

```
//void DrawRectangle(int width, int height);  
//DrawRectangle(5,3)
```

```
*****
```

```
*****
```

```
*****
```

```
//void DrawRectangle(string word, int height);  
//DrawRectangle("VOTE", 3)
```

```
shape.txt:
```

```
VOTE
```

```
VOTE
```

```
VOTE
```

```
//void DrawTriangle(int size, bool pointingUp);  
//DrawTriangle(4, true)
```

```
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```
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```

```
//void DrawTriangle(string word, bool pointingUp);  
//DrawTriangle("VOTE", false)
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//DrawTriangle("VOTE", true)
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VOTE
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