

## Problem Set 04 - Fields & Objects

Complete each task below. Remember to include all header files in the accompanying cpp file and test the functions.

### Tasks:

1. Create a header file named "Person.h" and define the class *Person* within the namespace *PS4*. The class must contain

- ☐ a public string field named *firstName*
- ☐ a public string field named *lastName*
- ☐ a public short field named *age*

Afterward, within the accompanying cpp file, define a string function named `FormatInfo()` that takes a *Person* reference parameter. It returns a string in the format

*x,y (z)*

where *x*, *y* and *z* are the values of the *lastName*, *firstName* and *age* fields of the parameter respectively.

2. Create a header file named "Window.h" and define the class *Window* within the namespace *PS4*. The class must contain

- ☐ a public int field named *height*
- ☐ a public int field named *base*

Afterward, within the accompanying cpp file, define a string function named `FormatInfo()` that takes a *Window* pointer parameter. It returns a string of a filled rectangle of asterisks (\*) that has a width and length equal to the values of the *height* and *base* fields of the parameter respectively.

3. Create a header file named "Pin.h" and define the class *Pin* within the namespace *PS4*. The class must contain

- ☐ a public static short array field named *code* that has a size of 4 and is initialized to {0,0,0,0}

Afterward, within the accompanying cpp file, define a string function named `FormatInfo()` that takes a *Pin* reference parameter. It returns a string of the values of the elements of the *code* field of the parameter in order with each value enclosed in square braces.