OOP244SCC Quiz 3:

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- 1- Name the three types of methods in a class:
- 2- Having the following structure:

```
struct Box {
   int m_height;
   int m_width;
};
```

Add a function called display that shows values of the box as follows: $m_{\text{height}} \times m_{\text{width}}$ and go to new line.

(if m_height has the value 10 and m_width has the value 8 the display method should print: 10×8 and go to new line)

- 3- Write a main function and in it create an instance of Box called "B" and set the height and width to 10 and 8 and then call the display of "B" to print it.
- 4- Rewrite (declare) the Box structure and make sure the two integers are only accessible by the class members and the display functions is accessible by all.
- 5- What is the difference between a class and a structure in C++.
- 6- What do ignore functions do in cin?
- 7- Assuming there is an integer called "num" with 127 in it; print it in 10 spaces and fill the left with "@". (i.e "@@@@@@0127")
- 8- Assuming there is a double variable called "price" with the value 123.4567; print it with only 2 digits after the decimal point. (i.e "123.46")
- 9- What is "this" in C++?
- 10- Add a default constructor to the Box structure (class) to set the height and width to zero;
- 11- Add a constructor that accepts one integer argument called "side" as an argument and sets the height and width to that value.
- 12- Add a constructor that accepts two integer arguments called "h" and "w" and sets the m_height and m_width to the corresponding values.
- 13-What is a destructor.
- 14- If the Box only had the one and two argument constructors and no default constructor could we have an array of Boxes created as follows? Box B[10]; Why?