Exercise 4a - Classes and objects

Beskrivning

Classes are common for most object-oriented programming languages. A class is basically a template for an *object*. An object is a special type of variable that has been created using the template. This object variable can contain different class variables depending on how you want to design your template.

Classes are created using the *class*-keyword. Below is a simple class with brand and color:

```
#include <iostream>
class CarTemplate
{
    std::string brand="";
    std::string color="";
};
```

Below is a class example but will not compile until you have a main function in the code.

You will notice that the above class does not do so much, since we have not set *public* type on the variables, they will still be private and not reachable outside the class. So, before the string declarations we add:

```
public:
```

When we extend the program and add *public* before the string variables in the class, we can then reach the *brand* and *color* from the main menu when we create the class.

In main we create a CarTemplate object like below:

```
CarTemplate my_volvo;
```

And setting the class variables brand and color like:

```
my_volvo.brand = "Volvo";
my_volvo.color = "yellow";
```

Exercise 4a

- Create your own class object called Phone
- The Phone-class should have two string class variables: name and color
- The name should be defaulted to an empty string
- The color should be default "green"

Information

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Den här uppgiften är inte obligatorisk

- Create an object of type Phone and name it my_phone and set the class variables name to something of your choice
- Finish the program by printing out the Two variables of your Phone-object in the following format: *"The X Phone is Y"* where X is the name, Y is the color
- The class should here default the color to green