Practice 02
Classes and separate compilation

1. Recap.
- What is "**separate compilation**" and why do we use it?
- What is a **header file**?
- What is a **source file**?
- What is an **include guard**?
- What is a **class** and what is an **object**?
- What is a **method**?
- What is the keyword **this**?
- What is a **constructor**?
- What is an **access modifier** and what do they do?
- What is the difference between **struct** and **class**?

2. Problems.

1. Create a class Beer containing fields (data members) for the beer's brand (with max length of 127 characters) and volume (in ml). Write a default constructor. Create an object of this class.

   a. Write set and get methods for the beer's brand and volume. Write a parameterized constructor. Create a beer (an object of type Beer) with brand's name Stella Artois and volume of 500ml.

   b. Write a method that can add a beer to another beer, that works like this:
      beer1 is **Becks** and there's **500**ml of it.
      beer2 is **Heineken** and there's **500**ml of it.
      ```
      beer1.add(beer2, 250);
      ```
      After this line of code the beers are now as follows:
      beer1 is **Becks&Heineken** and there's **750**ml of it.
      beer2 is **Heineken** and there's **250**ml of it.

   c. Write a method that checks whether a beer has any amount of a certain brand mixed into it.
      Example:
      From b. *beer1* is **Becks&Heineken** and there's **750**ml of it.
      ```
      beer1.check("Heineken"); // Should return true
      beer1.check("Stella Artois") // Should return false
      beer1.check(beer2.getBrand()); // Should return true
      ```