https://youtu.be/GxdPV4mz7wg

Friends

In C++, `friend` classes provide an alternative inheritance mechanism to derived classes. The main difference between classical inheritance and friend inheritance is that a `friend` class can access private members of the base class, which isn't the case for classical inheritance. In classical inheritance, a derived class can only access public and protected members of the base class.

Instructions

In this exercise you will experiment with friend classes. In the notebook below, implement the following steps:

1. Declare a class `Rectangle`.
2. Define a class `Square`.
3. Add class `Rectangle` as a friend of the class `Square`.
4. Add a private attribute `side` to class `Square`.
5. Create a public constructor in class `Square` that initializes the `side` attribute.
6. Add private members `width` and `height` to class `Rectangle`.
7. Add a `Rectangle()` constructor that takes a `Square` as an argument.
8. Add an `Area()` function to `class Rectangle`.