UML Diagram Tutorial

Time required: 30 minutes

UML (Unified Modeling Language) is a standardized modeling language used in software engineering. It helps in visualizing, specifying, and documenting the structure and behavior of software systems.

This tutorial shows how to create a class diagram for OOP Design.

Create a UML Diagram

1. Go to www.diagrams.net A login is not required.

2. Decide where you want to store your diagrams.

3. Go to **File → New → Class Diagram**.

4. You can remove/delete the related diagrams until you are down to one like the example.

Parts of the UML Diagram

- private attribute or method

+ public attribute or method

The top half of the diagram are the attributes, the bottom contains constructors and methods.

This is a short example for a Car class. **Car()** is a constructor. As shown, a constructor is a method. As the matches the class name, it is a constructor method.
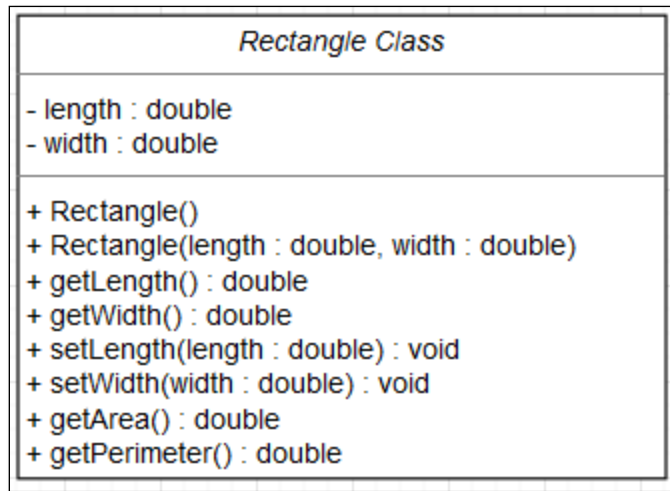
```
class Car {
    - make: String
    - model: String
---------------------
    + Car()
    + startEngine()
    + stopEngine()
}
```

UML Diagram for the Rectangle Class

This is the example OOP Class diagram for a rectangle class.

+ Rectangle() is a default constructor. A default constructor creates an empty object.

+ Rectangle(length : double, width : double) is a parameterized constructor. It creates and assigns attribute values.

Duplicate the above class diagram.

When complete and ready to submit.

1. **File → Export as → PNG**

2. Image → **Selection Only**

3. Download the png to your computer.

Assignment Submission

1. Attach the png file to the assignment in Blackboard.