Objects & Classes: Defining a new type of data and the operations for it.

class  class\(\text{name}\) {

    // fields
    public int name1; // instance variable visible to the outside world
    private type name2; // instance variable visible to instance only
    private static type name3; // constant shared by all class members (instances)
    public static final type name4; // constant visible to outside world

    // constructor(s)
    public class\(\text{name}\) (arguments) {
        // store appropriate info from arguments to make a new data object
    }
    public class\(\text{name}\) (different arguments) {
        // if there is more than one way to do it, go ahead and define multiple constructors
    }

    // methods
    public type method\(\text{name}\) (arguments) {
        // define something the public might want to do on this object (like paint)
    }
    private type method\(\text{name}\)2 (arguments) {
        // define a utility routine used only within the object (part of ‘encapsulation’)
    }
}

usage (in some other class) …

…
    class\(\text{name}\) x; // creating an object (an instance of class
    x = new class\(\text{name}\)(arguments); // ‘class\(\text{name}\)’)
…
    y = x.method\(\text{name}\) (arguments); // accessing a method of an object
    z = x.name1; // accessing a public field of an object
    a = class\(\text{name}\).name4; // accessing a class constant (no object present)