ASSIGNMENT 3

OBJECT-ORIENTED PROGRAMMING

October 19, 2023

The source code should be uploaded to the UPEL platform at the end of the class. DO NOT upload any executables, compressed files, subdirectories, or temporary files.

Today's task is to create a minimal program that registers customers of an online store.

[1]   Create a `Client class` that contains the following fields (of `type int` and `type String`): `clientId, clientName,` and a static field `count.`

In the `Client` class, create an initialization block that increments the value of the static field `count` each time a new instance of the class is created. Create a default constructor that sets the `clientName` value to "`empty`". In the initialization block, add the assignment of the current value `count` to `clientId.`

In the initialization block, constructors, and the main method, use the `System.out.println` function to display text that indicates which of the listed elements was called.

In the `main` method, create three new instances of the `Client` class (including one with no arguments). Verify that the initialization blocks and constructors have been called correctly.

Add the following methods:

- `String getName()`
- `int getID()`
- `void print()` displaying `clientId, clientName`
- `static int countClients()` that returns the number of clients created during program runtime.

[2]   In a separate file Create a class `Store` storing all customers in the form of a list`.` Create the following methods`:`

- `void add(Client aClient)` to add a new client to the end of the list,
- `void print()` that displays all customers in the store,
- `Client find(int ID)` that returns a reference to the client with the given ID, or `null` if there is no such client.

Create an example of how the program works by calling all of the above methods.