A class should be created for a name in the requirement, which can have fields and methods. In the given requirement, the names that are given which can be written as classes are:

1. Cart
2. Customer
3. Item
4. Store

So, I have created classes for these names.

As it was mentioned that the code should be run from command line, by passing necessary arguments to perform the simulation, developing a java based web application(Applet) will be not useful as we can’t pass values from command line to a java applet. So, I have created a java standalone application.

In order to run more than 1 customer at a time, concurrently, to simulate the situation that more than 1 customer can come in, shop and go out at a time, I have used threads. Each thread indicates a customer. If one customer buys a product, other customers shouldn’t be able to access that product until the one who has bought the product releases it. So, I have used synchronization, to restrict the access to add an object.