**Market Emulator – Client Application – HLD**

Goals

* Creating a friendly used system, which provides an excellent using experience for whole the users of the system.
* Enable users making deals in the system such that consumers can able to purchase products from the category, and commercials can sell their commodity.
* · Supporting every kind of user's necessary uses. Those uses will be described later.

Project Structure

The project is built by the principe of 3-tier architecture. The main idea of this principle is making a modular software by dividing the main software to 3 sub-projects which everyone has a different role.

The high level in the architecture of the software is the level where interaction with the consumer/user is occurred. In this layer, which call Presentation Layer (PL), the user enters inputs that represents his wills, requirements. In addition, PL is responsible for viewing information for the consumer, and letting him choose whatever he wants.

After receiving the information and inputs, the PL transfer the information to the second layer, the Business Layer (BL). BL is responsible for the logic part of the program. It means that the BL responsible for interpreting of the input for using the suit method. This process is done with the Parser Class that we have implemented in the project. Committing the suit method is occurred in the Socket Class that we have implemented in the project and contains methods like buy, cancel etc.

The last, and the low layer of the project’s architecture is called Data Access Layer (DAL).

DAL’s roll is communicating with the server. Server is a black box, that serve the users and provides useful information for the user. The interaction of DAL with the server is reflected when the DAL collects information and organize it as one object and sent it to the server. Furthermore, the DAL receives information from the server, organize it and returns it to the higher layers, until it return to PL, and then the output will be shown to the user.