Software Design Specification of E-commerce Website with Analysis Tools

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1 Introduction

1.1 System Overview

The E-commerce Website with Analysis tools serves as an platform to retailers needing to put their products online for sell. The E-commerce Website with Analysis tools will offer an interface that effectively aggregates the needs of retailer and customer with analyst role added in system to enhance the user Experience.

E-commerce website which will be used by

1. Customers to place orders navigating through categories as filters, place, manage and track orders.
2. Analyst/Manager to generate reports and develop marketing strategies like coupons and offers
3. Admin to manage stock, vendors and warehouses etc.

1.2 Definitions, Acronyms, and Abbreviations

System – Here after the ecommerce website with analysis tools will be referred as system.

MySQL – Database used in this application

Hibernate –ORM framework Used for mapping objects in JAVA code and MySQL database.

1.3 References

3 rd Party Frameworks

a. Spring: http://www.springsource.org/about

b. Spring Security: http://static.springsource.org/spring-security/site/index.html

c. Spring Validation: http://docs.spring.io/spring/docs/current/spring-framework-reference/html/validation.html

d. MySQL : https://dev.mysql.com/downloads/mysql/

e. Hibernate: http://hibernate.org/

f. Hibernate Validator : http://hibernate.org/validator/

2. Design Considerations

2.1 Assumptions

Users of this system must have basic knowledge of online shopping and computer systems .

2.2 Constraints

No specific constraints exist other than the resource limitations imposed upon applications that are being written for web browser. The cross browser testing needs to be done while deployment .

2.3 System Environment

The system is client server based web application will run on is the SpringSource dm Java Application Server (http://www.springsource.org/dmserver). Over an internet we can access this site form remote location.

2.4 Design Methodology

The design methodology being employed here is the UML object-oriented technique insofar as necessary since large parts of the system functionality are implemented in java ,spring MVC,and hibernate.

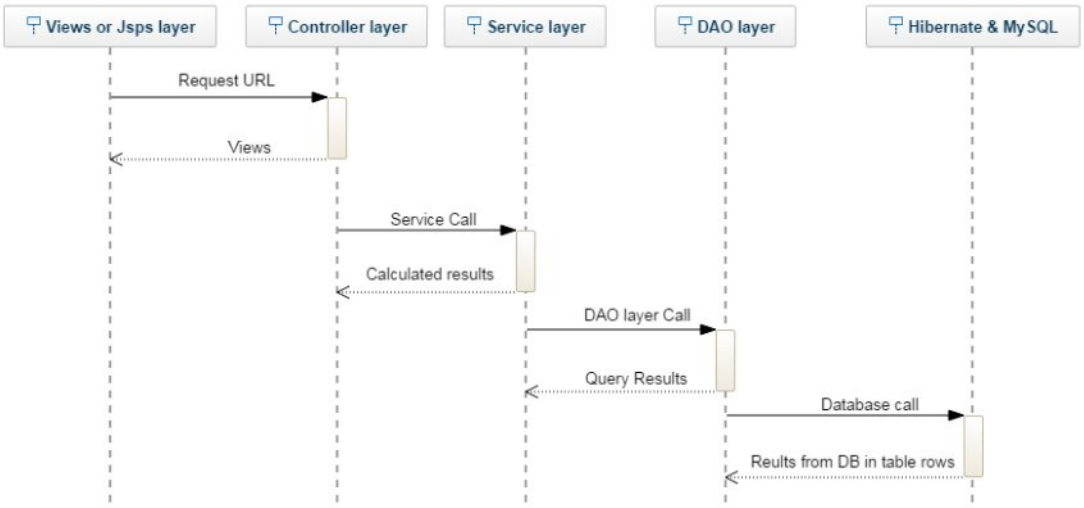


Fig.1 Layered structure of application

Fig 1 shows the layers of the system. And each layer calls the inner layer of the system and gets the requested results.

3. Architectural (High-level) Design

3.1 Overview

The system is 3 tier architecture and implemented in Spring model view controller (MVC).Here Model is data coming from database in this case its MySQL and flows through the system. View is showing the data to the client which is different for different use here we are using jsp for viewr. The system has different users and for every user the screens are also different .last the controllers are nothing but the java class spring controllers.

In this System the client server architecture is followed. The clients are web browsers who are consuming the website. And there is one server across the internet It consists of Spring controllers that respond to requests for data from the client and that has db connection. Database may be on same machine or it might be on different machine connected via network.

The following block diagram shows the basic architectural (high level) design.

. 3.2 Conceptual (or Logical) View

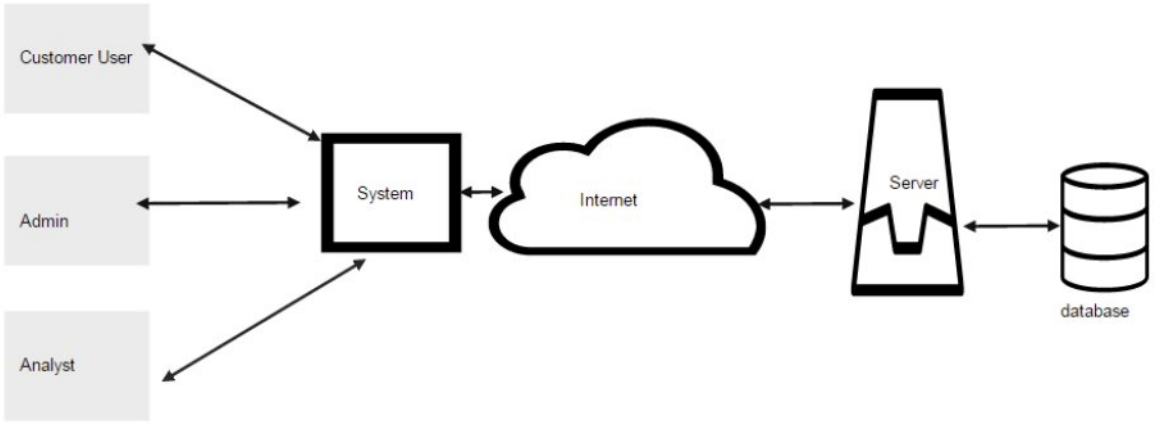


Fig. 2 High Level Architecture of The System

Basic flow

1.User Request a service.

2.It gets process at server according to user .

3.Server creates response and sends back to client.

4. Low Level Design

Client server Design

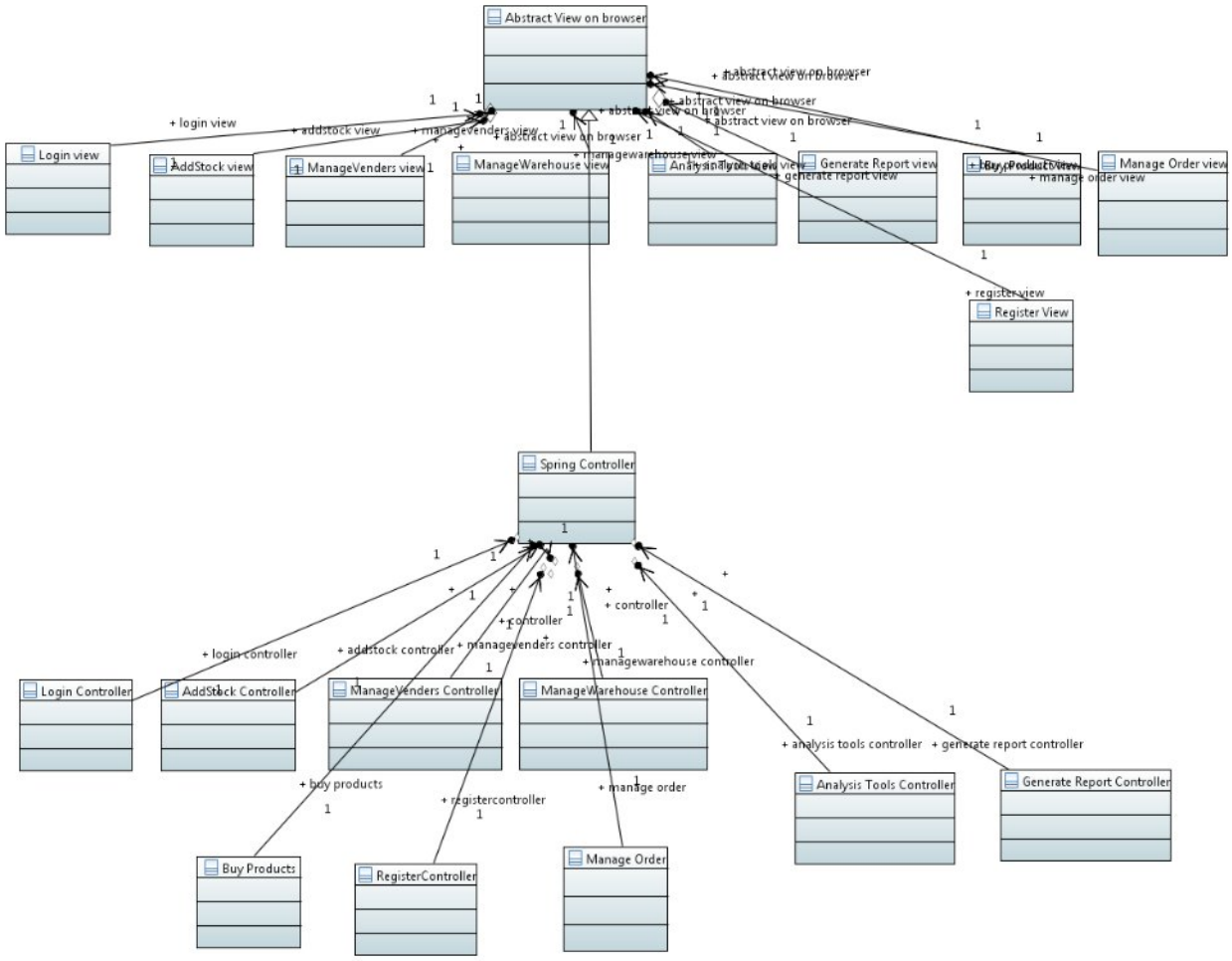


Fig. 3 Low Level Design Diagram for System.

As shown in fig 3 we have different controllers to delegate the user request, according to the controller called subsequently the controller will call the service method, and service method where all business logic resides ,then it will call the DAO class method which deals with database access control this sequence is shown in fig 1. In chapter 2. This layered structure will enhance the system security and scalability of the system.

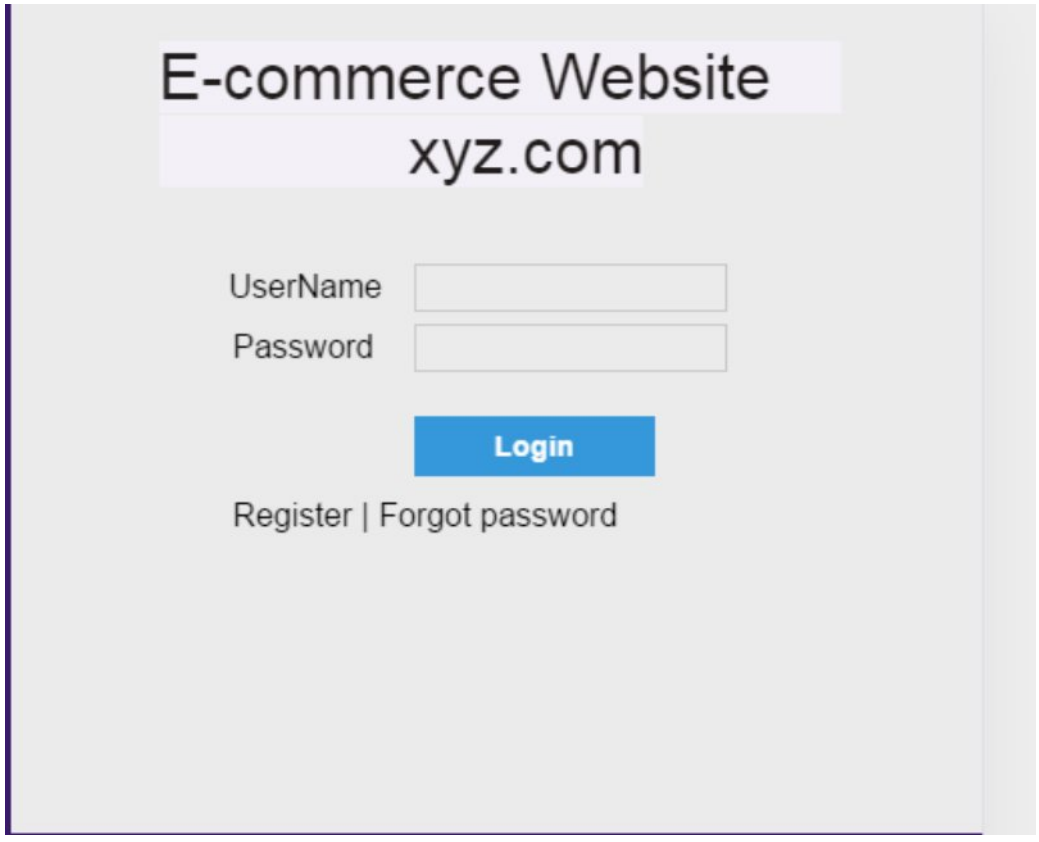
5. User Interface Design

5.1 Application Control

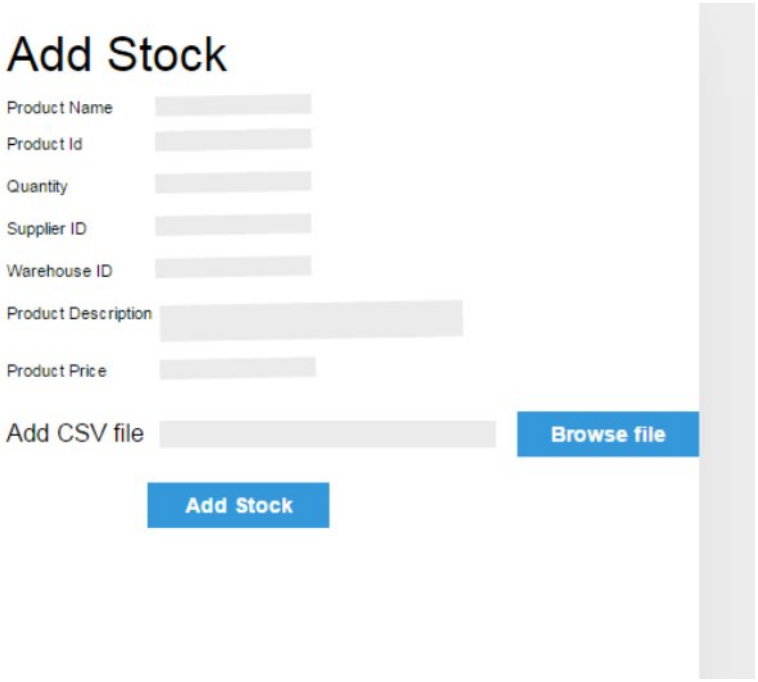
The primary user interface consists of an interface as can be seen in the following screenshots.There are three types of users for the system. For each type of user login screen is same but, other screens vary as shown below.

5.2 Screenshots

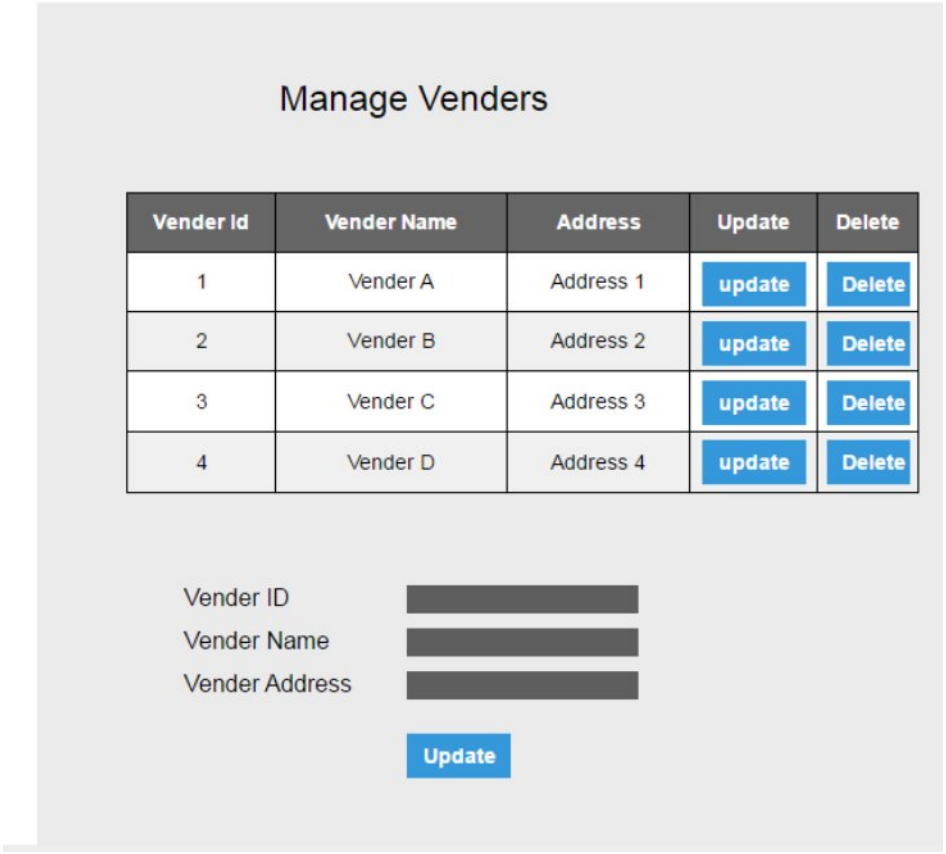
1.Login page



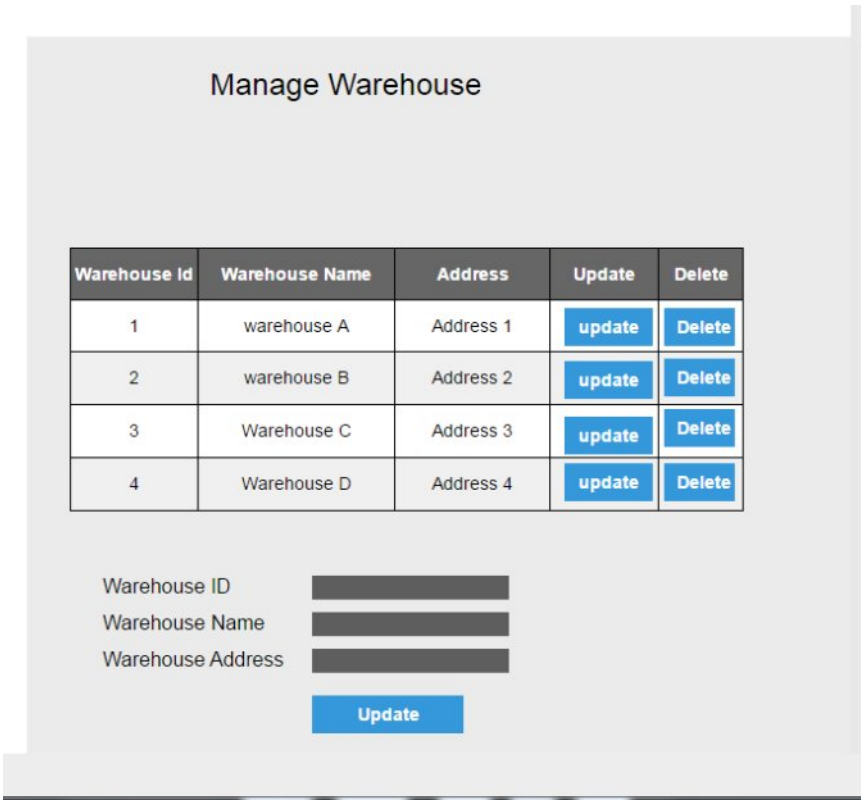
2.Admin- Add Stock



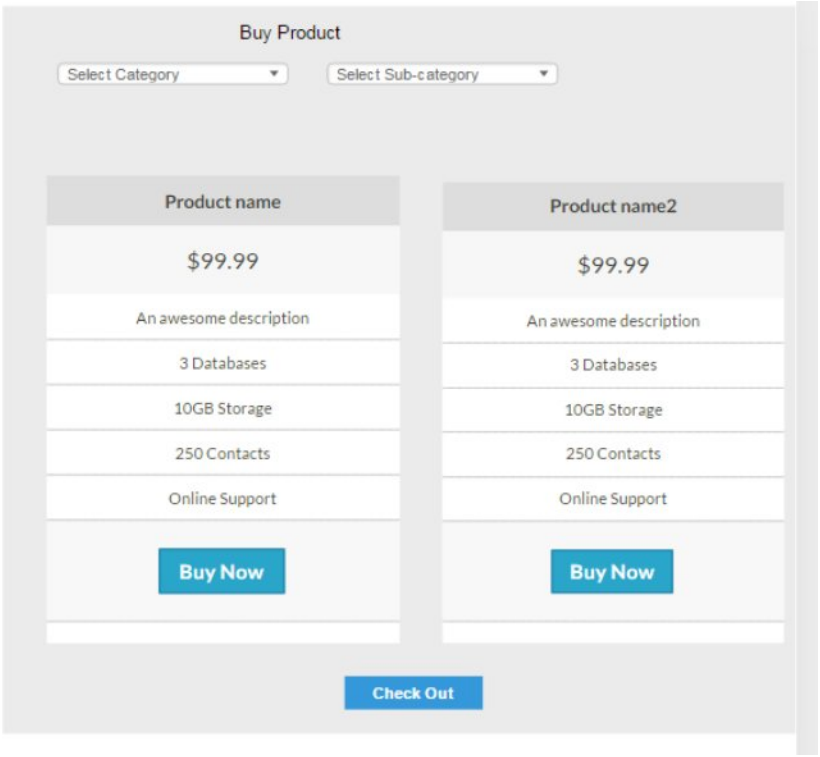
3.Admin – Manage Venders



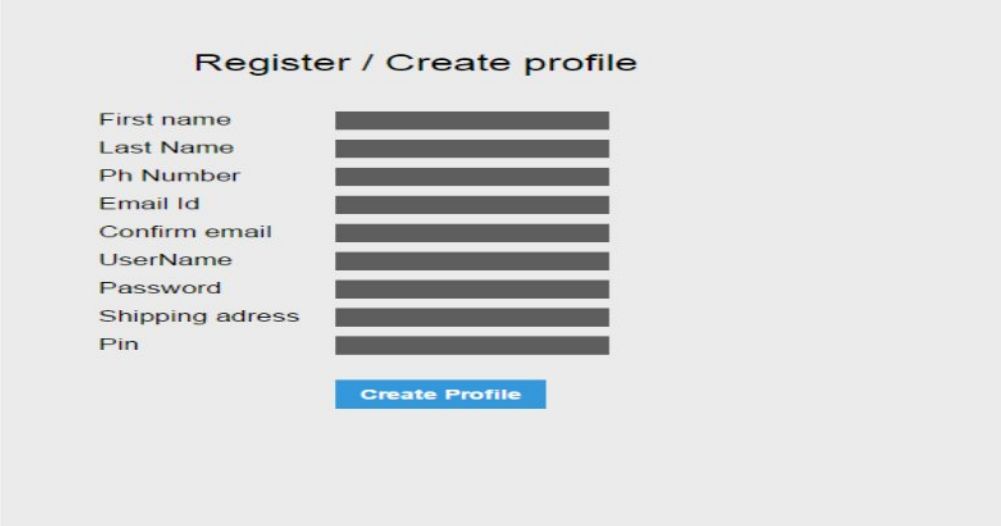
4.Admin –Manage Warehouse



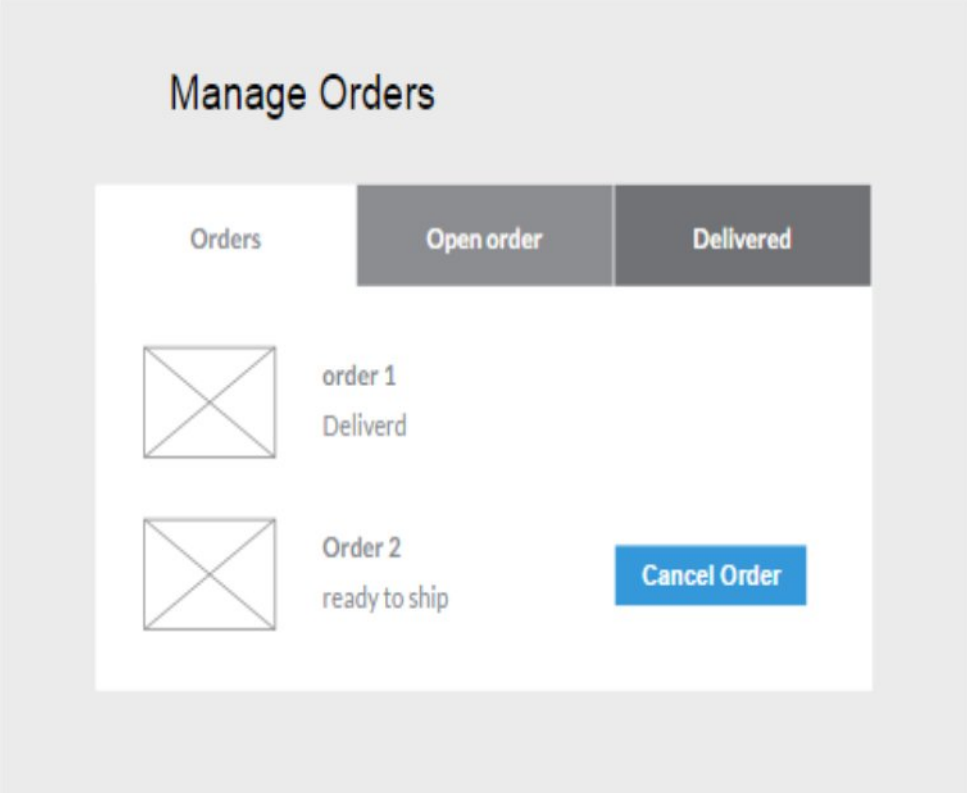
5.User Buy Product.



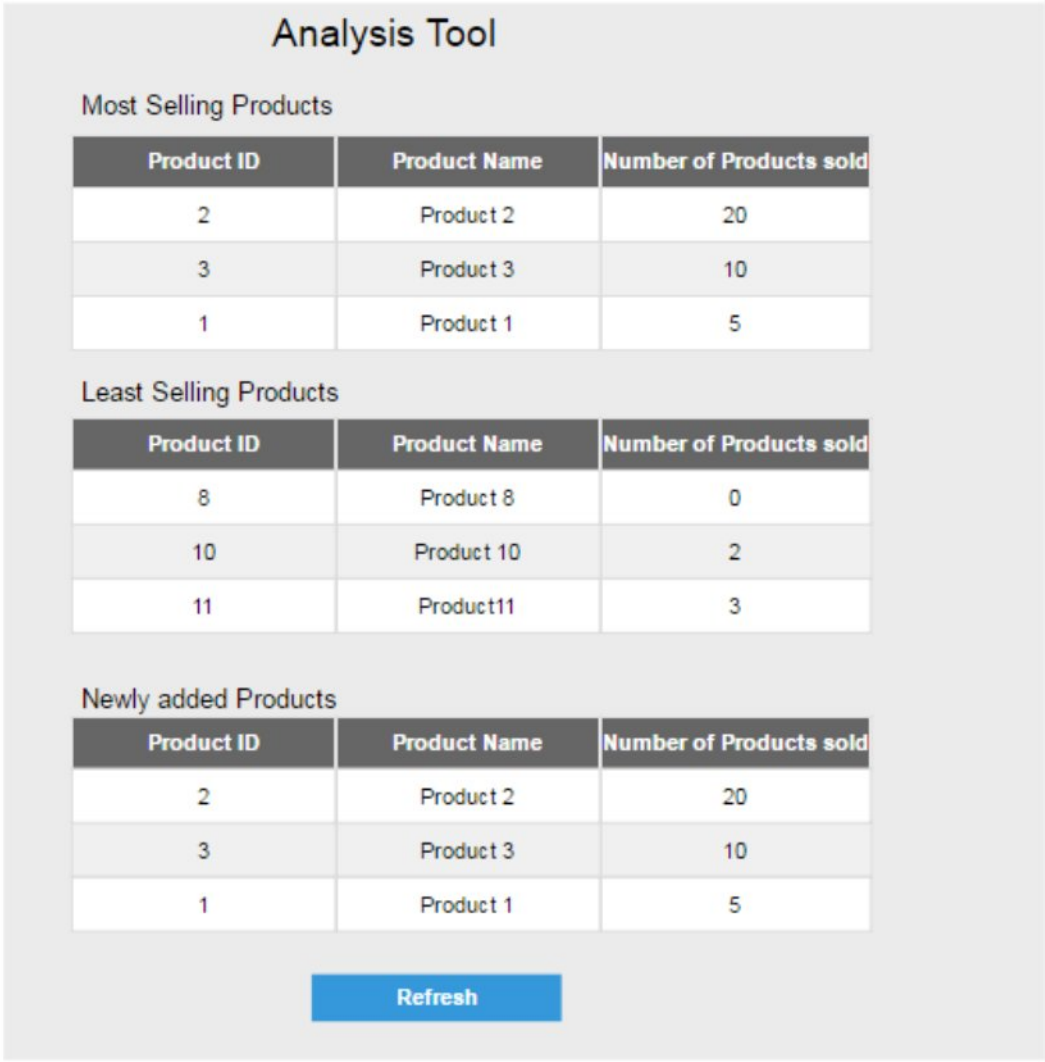
6.User –Register



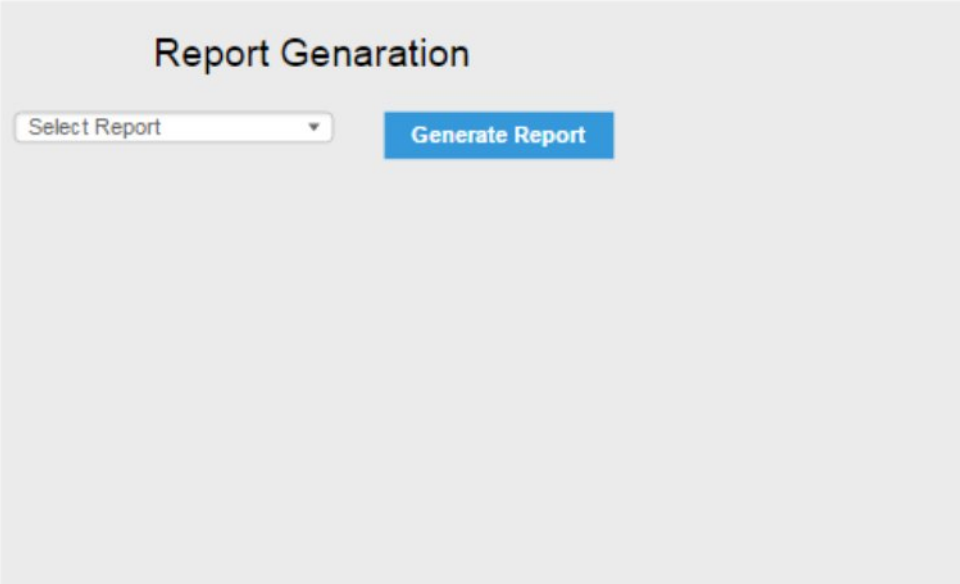
7.User- Manage Order



8.Analyst –Analysis Tools



9. Analyst-Generate Reports


Report Genaration
Select Report
Generate Report