Innovation
Phase 2

E commerce application on IBM Cloud Foundry

1.0 INTRODUCTION:

E-commerce is fast gaining ground as an accepted and used business paradigm. More and more business houses are implementing web sites providing functionality for performing commercial transactions over the web. It is reasonable to say that the process of shopping on the web is becoming commonplace.

The objective of this project is to develop a general purpose e-commerce store where product like clothes can be bought from the comfort of home through the Internet. However, for implementation purposes, this paper will deal with an online shopping for clothes.

An online store is a virtual store on the Internet where customers can browse the catalog and select products of interest. The selected items may be collected in a shopping cart. At checkout time, the items in the shopping cart will be presented as an order. At that time, more information will be needed to complete the transaction. Usually, the customer will be asked to fill or select a billing address, a shipping address, a shipping option, and payment information such as credit card number. An e-mail notification is sent to the customer as soon as the order is placed.

2.0 OVERALL DESCRIPTION:

2.1Description:

➢ Any member can register and view available products.
➢ Only registered member can purchase multiple products regardless of quantity.
➢ ContactUs page is available to contact Admin for queries.
➢ There are three roles available: Visitor, User and Admin.
- Visitor can view available products.
- User can view and purchase products.
- An Admin has some extra privilege including all privilege of visitor and user.
  - ✓ Admin can add products, edit product information and add/remove product.
  - ✓ Admin can add user, edit user information and can remove user.
  - ✓ Admin can ship order to user based on order placed by sending confirmation mail.

2.2Using the code:

1. Attach the database in your "SQL Server Management Studio Express".
2. Run the application on Microsoft Visual Studio as web site.
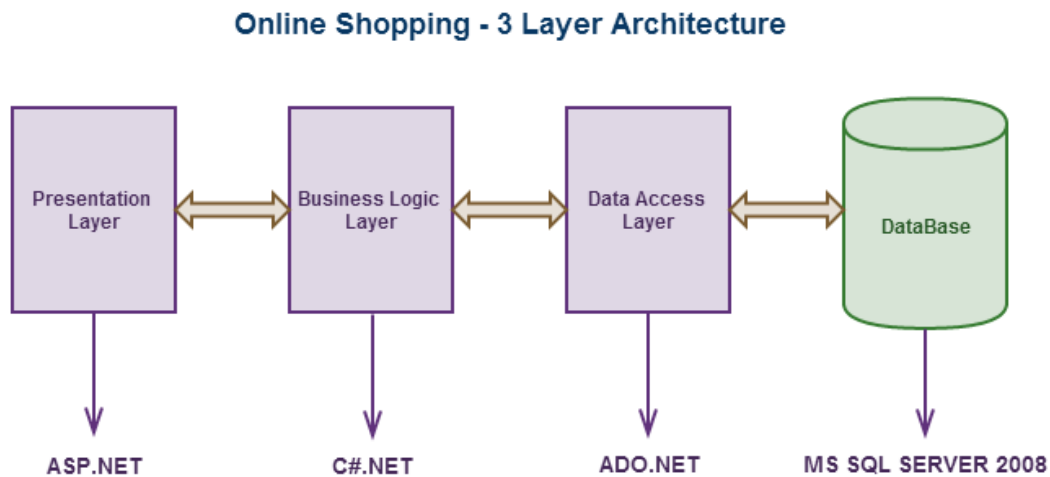3. Locate the database.

2.3MasterPage details:

➢ OnlineShopping Master Page (Similar MasterPage for Visitor, User and Admin)
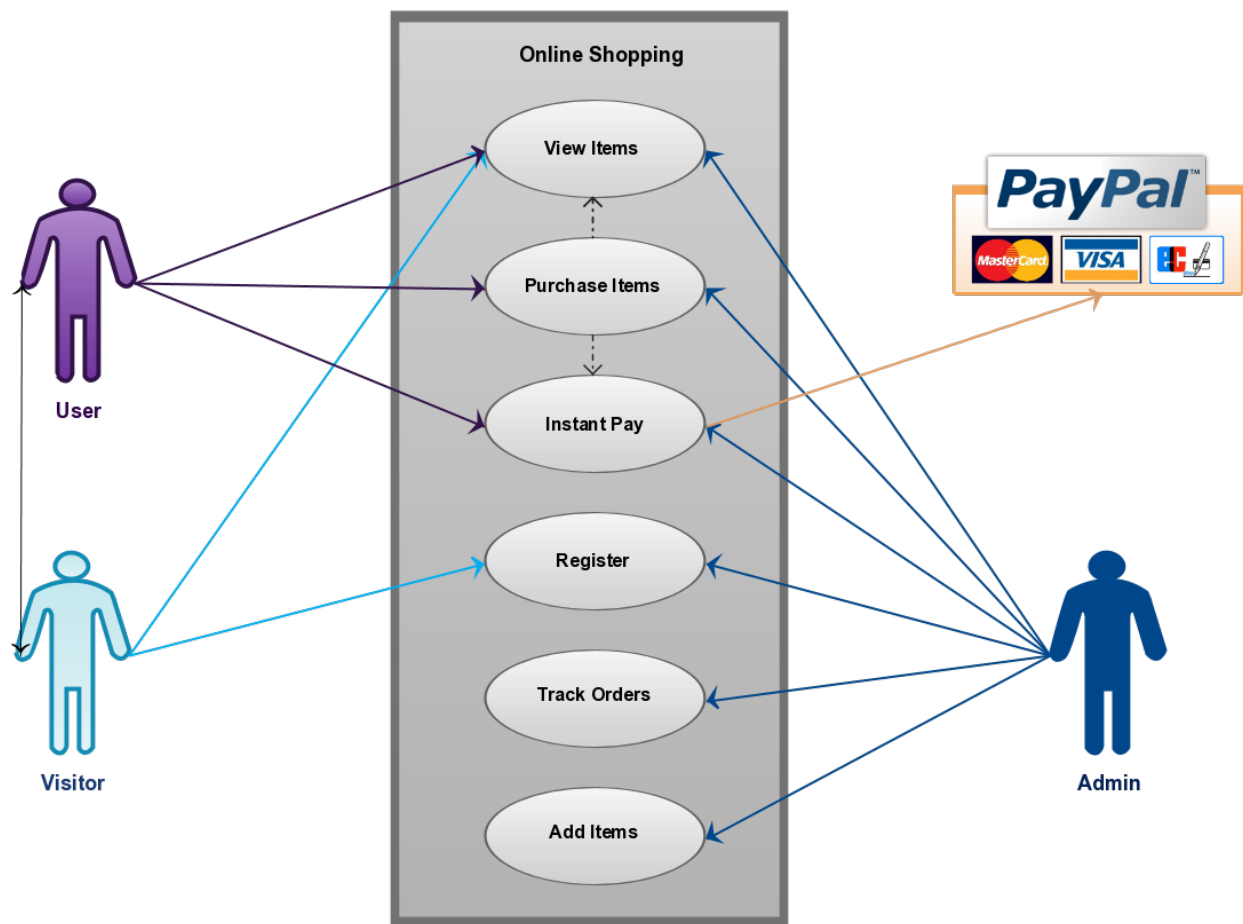
2.4Web Pages details:

➢ Home Page
➢ AboutUs Page
➢ Clothing Page
➢ OrderUs Page
➢ ContactUs Page
➢ Admin Page
➢ Login Page
➢ Register Page
➢ Track

2.5Project Detail:

Online Shopping - 3 Layer Architecture

3.0 SYSTEM REQUREMENTS:

3.1 USE-CASE DIAGRAM:

4.0 ONLINE SHOPPING APPLICATION:

Anyone can view Online Shopping portal and available products, but every user must login by his/her Username and password in order to purchase or order products. Unregistered members can register by navigating to registration page. Only Admin will have access to modify roles, by default developer can only be an 'Admin'. Once user register site, his default role will be 'User'.

4.1 HOMEPAGE: The Home Screen will consist of screen were one can browse through the products which we have on our website

Figure1: Home Page

4.2. CLOTHING PAGE (PRODUCTS): This page consists of product details. This page appears same for both visitors and users.
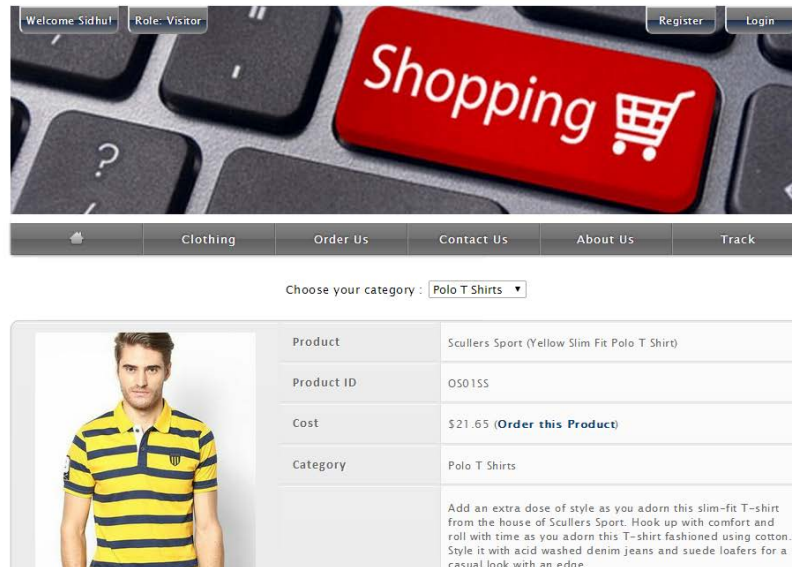
Figure 2: Clothing Page

4.3 Order Us Page: Registered users can order desired products from here.
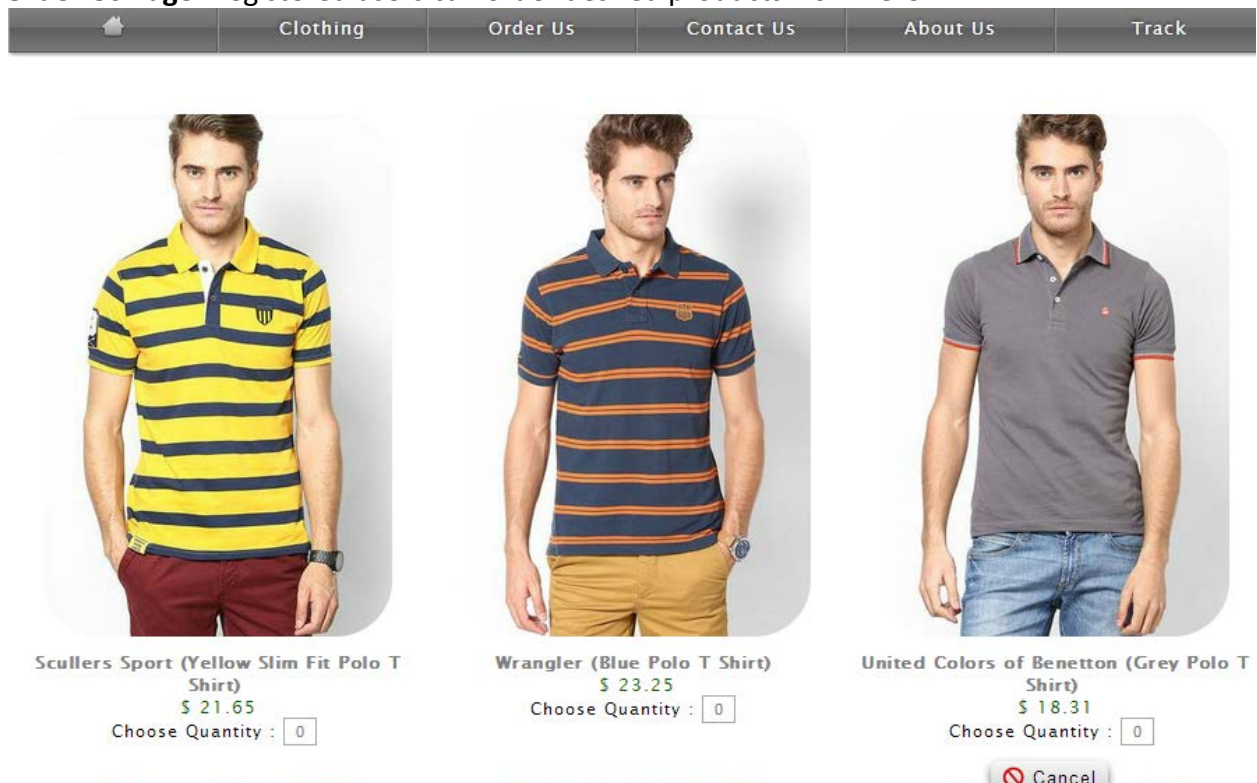
Figure 3: Order Us Page

4.4 Contact Us Page: Visitors and Registered users can contact website owners or administrators from here

Figure 4: Contact Us Page

4.5 ABOUT US PAGE: This page describes about website and owners

Figure 5: About us Page

4.6 Track For Admin Page: Website Administrators can track and ship orders here.

Figure 6: Tracking Page for Admin.

4.7 REGISTER PAGE: New users can register here

Figure 7: Register Page

4.8 LOGIN PAGE: Login page for both users and administrators.
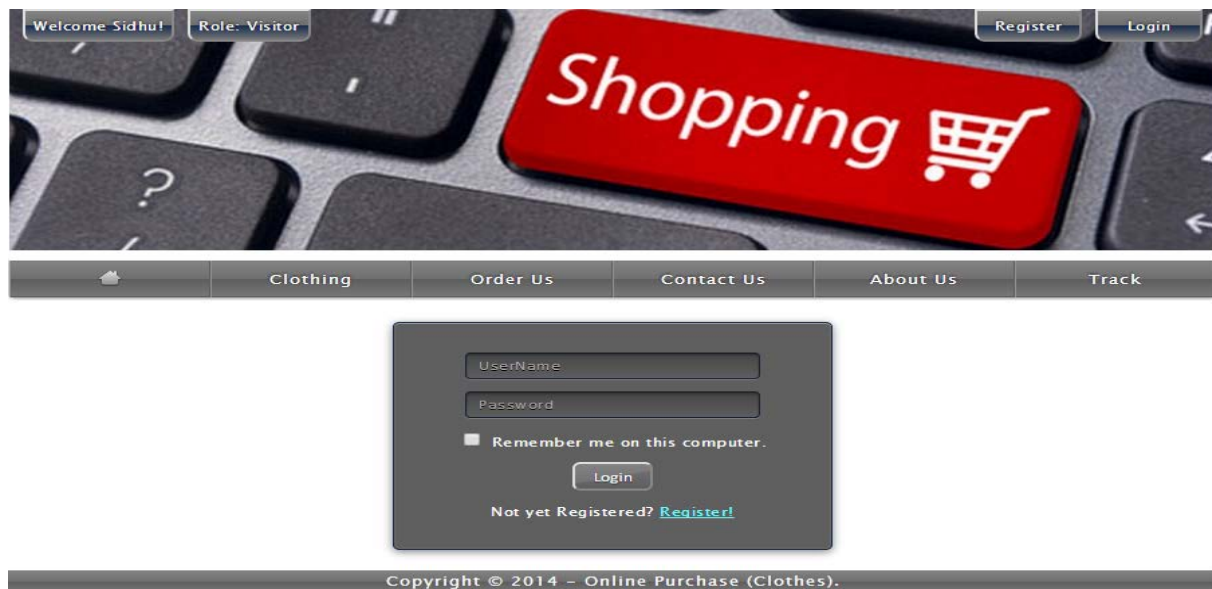
4.9 Admin Page: Only difference you see in this page is Role: Admin. User and Admin role will be checked once the page was login and Session ["role"] will be either Admin or User. If credentials belong to Admin then role will be Admin and if credentials belong to User then role will be User.

Online Shopping (Graduate Final Project) – Governors State University

- Online Shopping is a lifestyle e-commerce web application, which retails various fashion and lifestyle products

Figure 9: Admin Page

4.10   ORDER VIEW FOR USER: Once users order item they are able to see ordered products and grand total.

Figure 10: Order View for User

4.11   PAYPAL FOR PAYMENT: Once users orders products they are redirected to payment page.

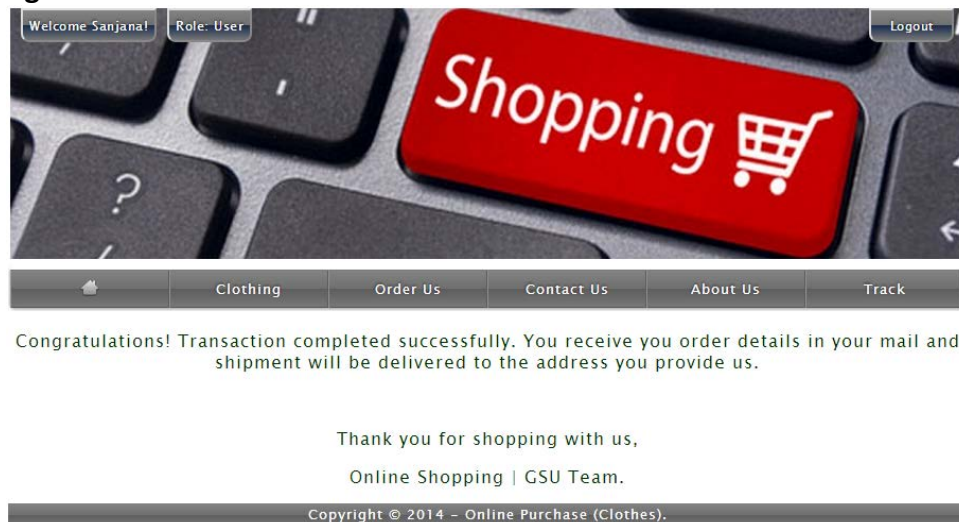Figure 11: PayPal Page

Figure 4.12: Success URL

Figure 12: Success URL
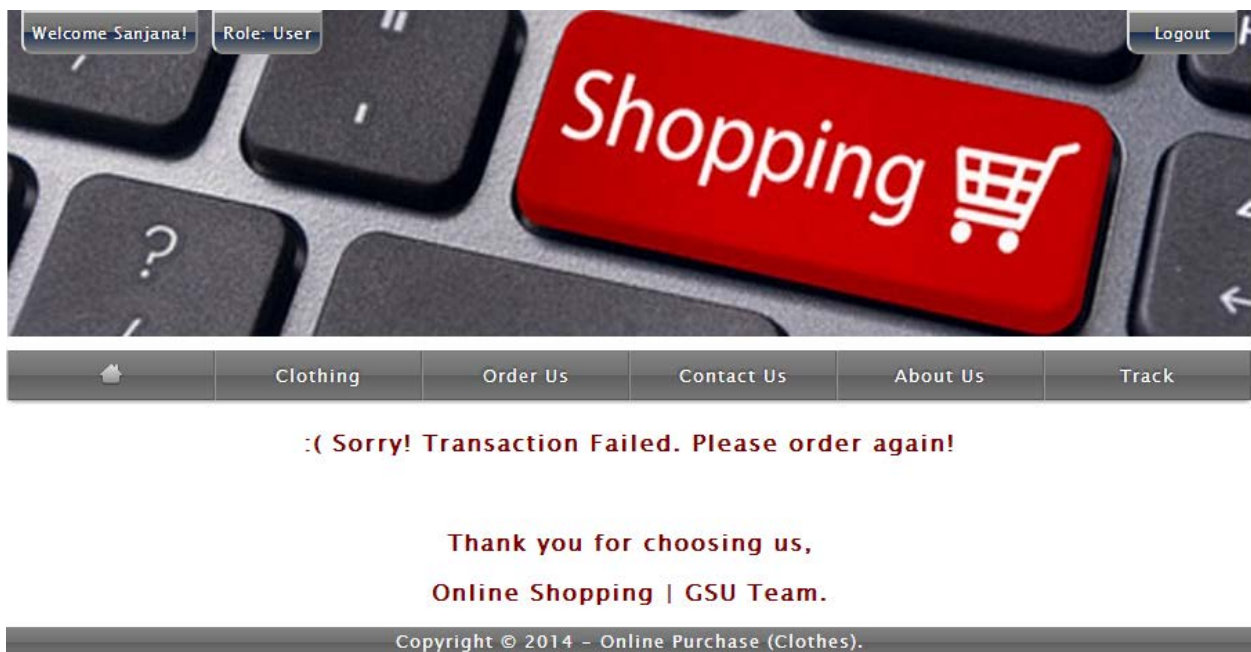
FIGURE 4.12: Failed URL

Figure 12: Failed URL

5.0 Data Management

5.1 Data Description

This database consists of

 ➢ Users: User and Admin information is added to database with Unique ID based on their roles.
 ➢ Shopping: Complete products information is stored in this table.
 ➢ Orders: Customer ordered products, status and delivery information is stored in this table.

5.2 Data Objects

 ➢ User: ID, UserName, Password, Email, Role
 ➢ Shopping: ID, Product, Product ID, Cost, Category, Image, Description
 ➢ Orders: ID, Client, Product, Quantity, Price, Date, OrderShipped

5.3 Database Table Diagram

users
🔑 ID
UserName
Password
Email
Role

shopping
🔑 ID
Product
ProductID
Cost
Category
Image
Description

orders
🔑 ID
Client
Product
Quantity
Price
Date
OrderShipped

5.4 Relationships: