ONLINE SHOPPPING SYSTEM PROJECT

❖ PROBLEM STATEMENT (ABSTRACT)

The purpose of Online Shopping System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, full-filling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Online Shopping System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on the other activities rather to concentrate on the record keeping. Thus, it will help organization in better utilization of resources. The organization can maintain computerized record without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

Every organization, whether big or small, has challenges to overcome and managing the information of customers, product, order, payment, every Online Shopping System has different product needs, therefore we design exclusive Online Shopping management systems that are adapted to most of the managerial requirement. And mainly the project purpose is to remove complete book and pen system for storing and managing the data of Users, Products, Orders, etc. And also to increase the business of Organization.

❖ REQUIREMENTS

➢ ATTRIBUTES:

1) **Usability**
   User should be utilizing a system effectively and the ease of which users can learn to operate or control the system. The well-known principle of usability is KISS (Keep It Simple Stupid). Software applications should be user-friendly.
2) **Reliability**
   It is the ability of a system to continue to keep operating over time.
3) **Availability**
   It is the ratio of the available system time to the total working time it is required or expected to function.
4) **Portability**
   It is the ability of a software application to run on numerous platforms such as data portability, hosting, viewing, etc.
5) **Testability**
   It shows how well the system or component facilitates to perform tests to determine whether the predefined test criteria have been met.
6) **Scalability**
   It is the ability of a system to handle the demand for stress caused by increased usage without decreasing performance.
7) **Flexibility**
   It is the ability of a system to adapt to future changes.
8) **Maintainability**
   It is the ability of a software application to maintain easily and support changes cost-effectively.
9) **Interoperability**
   It is the ability of two or more systems to communicate or exchange data easily and to use the data that has been exchanged.
10) **Performance**
    It is the ability of a system in the form of responsiveness to various actions within a certain period of time.

11) Security

It is the ability of a system to resist or block malicious or unauthorized attempts that destroy the system and at the same time provide access to legitimate users.

- **CAPABILITIES:**

A capability is a description of what the business is trying to achieve. It is often derived from the company's overall business goals, which usually describe a highlevel, long- term strategic vision. An example may be to double sales over the next two years.

The Project goal relies on a number of Capabilites. When these are in place, the business goal can be achieved. In other words, if a business goal describes the 'what' in terms of where the business is trying to go, the capability describes 'how' this goal can be reached.

So our Online Shopping System should be made in such a way that mainly it should have the capability of attracting more and more users each and every day to increase the business.

- **CHARACTERISTIC OF THE SYSTEM**

i) Correctness

A good design should correctly implement all the functionalities identified in the SRS Document.

ii) Understandability

A good design should be easily understandable for which it should be modular and all the modules are arranged in layers.

iii) Efficiency

A good software design should address the resources, time & cost-optimization issues

iv) Maintainability

A good software design should be easy to change whenever a change request is made for the customer side.

- **QUALITY STATEMENT**

Software should follow all the quality attributes like Usuability, Security, Performance, Availability, Portability, Flexibility, Maintainability, Scalability, etc.

❖ ARCHITECTURE/ DESIGN

➢ OVERVIEW OF SOFTWARE

The project entitled “Online Mobile Shopping” enables customer to buy mobiles or accessories from anywhere through online. This application advertises some of the products for shopping. To buy products, customer has to create an account. Those who does not have an account, they can only view the available product. They can’t buy it.

Once the customer has created account, not only he can view the products, he can also add the product to the cart and also he can place an order to buy those products. This application then generates bill for that particular customer.

After the confirmation, the customer has to enter his credit card details to buy those products.

The product will be developed completely independent and dynamic website. Customer must have an account to purchase the product. This application stores all the information in the database which can be retrieved whenever needed and all the validations are per formed during the entry of the data by the user thus ensuring that the user cannot enter any wrong data which could cause problem later.

- **DESIGN OF SOFTWARE**

The Design Pattern used for the development of the Software is MVC that is MODEL VIEW CONTROLLER.

Structured design technique help developers to deal with the size and complexity of programs. So our Software is designed in such a that are easy to understand, a new developer can also easily understand the complete project code.

Layered concept has been implemented in the project like Controller layer, Service layer and many more.

Proper methodology has been followed for developing the project so that in future when we need to add more functionalities we can easily add or remove the functionalities.

❖ TECHNICAL DETAILS:

➢ DOCUMENTATION OF CODE

The code is written in clean and understandable way. Proper packages have been created and files are stored in respective packages so that it will be understandable which file is for what use as you can see below.

Online Shopping System

- **Src/main/java**
  - **Com.onlineshopping.dao**
    - productDao.java
    - BrandDao.java
    - BrandDaoImp.java
    - cartDao.java
    - cartDaoImp.java
    - clothDao.java
    - ClothDaoImp.java
    - Helper.java
    - orderDao.java
    - orderDaoImp.java
    - ProductDao.java
    - ProductDaoImp.java
    - userDao.java
    - userDaoImp.java
  - **com.onlineshopping.model**
    - Brand.java
    - Cart.java
    - Category.java
    - Cloth.java
    - Order.java
    - Product.java
    - User.java
  - **com.onlineshopping.controller**
    - Cartservlet.java
    - Loginservlet.java
    - Orderservlet.java
    - Productoperatioserv.java
    - Registerservlet.java

- **ALGORITHMS**

  For the Security of the software we have used algorithms.
  In our Software we have used AES Algorithm that is Advanced Encryption System for the security of our software.

  In our Software multiple Customers will register there details, so its our responsibility to keep the details of Customers Secured in our system (database)**.**

- **INTERFACES**

  In our Software, we have implemented Polymorphism System that is one the Object Oriented Programming property.

  We have created multiple interfaces and inside that we have declared multiple Functions so that every person whether technical or non-technical person can easily understand Functionalities present in the software.

  Interface Created:

  ProductDao.java
  UserDao.java
  ClothDao.java
  BrandDao.java
  CartDao.java
  OrderDao.java

  And for all the interface we have a respective implementation class as

  ProductDaoImp.java
  UserDaoImp.java
  ClothDaoImp.java
  BrandDaoImp.java

CartDaoImp.java
OrderDaoImp.java

- **APIs**

  For our Software multiple APIs have been created to handle many different and different request from the UI(User Interface) Frontend Side. HTTP methods like GET, POST, PUT, DELETE mapping has been used for handling the requests.

  Mentioning some of the APIs:

  User Register API
  User Login API
  Add product API
  Order product API
  Download Bill API

  In the similar manner, many APIs has been created to handle request from UI end.

❖ END USER MANUAL:

➢ Manuals:

So when customer opens the application he will be able to see all the products present in the application. He will be able to filter the products based on the categories.

Customer will be able to see the Search option in the navigation bar where he can search the products based on his requirements.

Here one thing to note is that Customer cannot buy the product without login into the system, he can view the products. So for buying the product he has to login into system. So from the navigation bar firstly Register into the system and then he can login into the system.

After login he can add the product to the cart. In the similar manner he can add multiple products to the cart. After adding all the required product to the cart.

Now customer can finally Order the products. After this Admin will receive the Order requested by the customer and there by he will set the delivery date for the customer.

The main thing is Software is user friendly.

❖ MARKETING:

➢ Strategy for marketing:

The main strategy of marketing for our software is Software should be User friendly so that user stay on software for the longer time and there gradually our business will grow.

Other than this, we can also go with Video marketing, Media relations, Serach Engine Optimization(SEO) and Pay-Per-Click(PPC) advertising, Social media marketing.