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CS6304 – SOFTWARE ENGINEERING

ASSIGNMENT

E – COMMERCE

SOFTWARE REQUIREMENT SPECIFICATION (SRS)

- I presented my idea to a textile store owner and I gathered key requirements (**audio file of the requirements attached** along with all other documents) necessary to establish his business in an online platform. I also took the liberty of introducing some improvisations of my own in addition to the requirements specified by him. Instead of using the term 'Textile', I have generalized this system to be used for any product-based business.

1. INTRODUCTION:

1.1 PURPOSE:

This software focuses on those businesses which intend to venture into E-commerce to subsequently increase their sales and profits. This software provides complete solutions for vendors as well as customers through a single gateway. It will enable vendors to setup online shops directly mentioning their selling item category, customer to browse through the shops and purchase them online without having to visit the shop physically.

1.2 SCOPE:

This system provides an easy solution for customers to buy the products without stepping out and also to small-scale businesses and start-ups to sell their products efficiently. The current pandemic situation adds more weight for this software to be implemented as it enables no-contact delivery of any required items. This proposed system can be used by any naïve users and it does not require any educational level, experience or technical expertise in computer field but it will be of good use if user has the good knowledge of how to operate a computer. Since the dealer is directly involved in the sale of the product the additional cost on the product due to intermediate brokerage will be reduced which is beneficial for the customer.

1.3 OVERVIEW:

This system allows a customer to place orders online for products sold from a store that serves both walk-in customers and online customers. This system displays all the available products in a particular store. The customers can search the products based on category and select the required products to add them to the cart. Cart may be viewed at any time, and their contents can be edited. Then the customers can place their orders and make payment for them online through different payment modes available. The placed order is delivered to their registered address. The customers can also cancel the order and request for refund.

2. SPECIFIC REQUIREMENT:

2.1 FUNCTIONAL REQUIREMENT:

Various functional modules that can be implemented by the system:

- **Registration:**
  If the customer wants to buy products then he/she must be registered, unregistered user can only search but cannot order anything through the system.

- **Login:**
  Customers login to the system by entering valid username and password.

- **Cart:**
  Customers can place order of the selected products from the cart.

- **Payment:**
  Customers can make their payment using different payment modes securely.

- **Logout:**
  After searching products, editing profile, viewing cart, making payment, etc. the customers can logout from the system.

- A single registered customer may place a number of orders.

- The customers can also cancel the order and request for refund but the cancellation should be done within one hour from the time of payment.

- The order can only be placed if the number of units of each item ordered is in stock.

- An order must include at least one item (No null order).

2.2 NON - FUNCTIONAL REQUIREMENT:

2.2.1 INTERFACE REQUIREMENT:

- There should be a login page, registration or sign up page.
- There should be a page displaying information about the various products available in the store.
- If the customers click cart icon, the cart page should open displaying all the selected items.

2.2.2 PERFORMANCE REQUIREMENT:

- The system must be interactive and the delays involved must be less.
- The system should be based on web and has to be run from a web server.
- The system must suit to the hardware components of the customer.

2.2.3 SECURITY:

- The system should use TSL (Transport Layer Security) to provide data security for communications over the Internet.
- The system must automatically logout a customer after a period of inactivity.
- Sensitive data should be encrypted using TSL.

2.2.4 RELIABILITY:

- The system should be reliable to perform operations and to secure the sensitive details of the customers.
- The system provides storage of all databases on redundant computers with automatic switchover.
- The reliability of the overall program depends on the reliability of the separate components. The main pillar of reliability of the system is the

backup of the database which is continuously maintained and updated to reflect the most recent changes.

- Thus, the overall stability of the system depends on the stability of container and its underlying operating system.

2.2.5 AVAILABILITY:

The system should be available at all times, meaning the user can access it using a web browser, only restricted by the down time of the server on which the system runs. In case of hardware failure or database corruption, a replacement page should be shown and should allow the administrator to retrieve the backups of the database from the server and save them. Then the service should be restarted. The system should be available 24 X 7.

2.2.6 PORTABILITY:

- This system should work on Windows or Linux Operating System.
- This system should be able to run on Desktops, Laptops, PDAs etc.

3. SYSTEM SPECIFICATION:

3.1 HARDWARE REQUIREMENT:

- Intel core i5 10^{th} gen processor or any higher processor with at least 8GB of RAM.

3.2 SOFTWARE REQUIREMENT:

- Operating System: Windows XP or later, Ubuntu 16.04 or later
- Web/ Application Server: Java Web Server 2.0
- Database Server: Oracle
- Database Connectivity: JDBC
- Other Tools & Technologies: Java (JDK), Servlets (JSDK)