Software Requirements Specification(SRS)

for

Online Grocery Shop

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1. INTRODUCTION

"On-Line Shopping System" is a web-based project which is made for remote-shopping or shopping through Internet. As the technology is being advanced the way of life is changing accordance. Now a day's we can place the order for anything from our home. There is no need to go the shop of the things we want. The order can be placed online through Internet. The payment, the confirmation of purchasing; we can do everything we want. Now we can think that how the days have been changed with time. People had to stand in rows to wait there terms to buy a particular thing from a popular shop. But what is happening now a day's; we can extremely surprise that those things can be available on the door-step in few hours. People had to suffer the rush of the market when they went for shopping. They used to think hundred times to buy anything having the sufficient money for shopping. The problem was the rush; the quarrel at the time of buying the things. But the advancement of technology brought the new way for shopping. The way of shopping was completely changed with the coming of Internet Technology .People have to fill a simple form on the internet to place their order on any popular shop or shopping-mall for the thing they want to buy. Now they can place their order from the home.

This project entitled "**Online Grocery Shop**" is an implementation of the above description. It implements the Grocery E-shopping or in other word grocery shopping through Internet. It lets the user to place their order online for any grocery products.

2. OBJECTIVE

There are several objective of this websites are following given bellows.

• This site is gives all the information about the grocery shop provide better service for the customer.

• It provides the facility to the customers who want to buy grocery products to lack of time.

• It provides facility to the customer to payment by the cash or Debit/credit card or through Net Banking and also through PayPal or paytm.

• It's providing the full details about the grocery product and related information about the product like cost, weight, best before date etc.

• With the help of it we can save the time and money also.

• It provides better security and good delivery service to the customer.

3. PROJECT CATEGORY

Web based PHP application with MySQL as back end.

4. TECHNOLOGY USED

- It is a web based environment with **PHP 5.6.25** as the server side scripting language and **MySQL 5.6.25** as the relational DBMS. Clients will be Google Chrome based. Mozilla Firefox etc can also be used.
- All front-end design is done using PHP with JavaScript, jquery, HTML5, Cascading Style Sheets (CSS) and **Bootstrap**.

[Internet Technologies: JavaScript, HTML5,jquery,Java Script

PHP 5.6.25 and Apache Server(WAMP)

RDBMS/Back End: MySQL DB]

5. SOFTWARE REQUIREMENTS

- WAMP Server
- Notepad ++
- Browsers(Google Chrome/ IE/ Mozilla Firefox)

6. HARDWARE REQUIREMENTS

- Intel Duel Core 2.0GHz or higher processor
- 2 GB RAM
- 10 GB HDD Space

7. FEASIBILITY STUDY

The main aim of the feasibility study activity is to determine whether it would be financially and technically feasible to develop the project. It involves analysis of the problem and collection of all relevant information.

After collecting all the relevant information (like who are the users, how they interact with the system etc) and details about our project “Online Grocery Shop” we reach at the conclusion that the system is financially feasible and can be developed using the technology that we presently have.

8. DESIGN

System Design is a detailed study of various operations performed by a system and its relationships within and outside the system. The commonly used tools for analysis are DFD (the logical representation of the analyzed system), ERD, onsite observations etc.

Data Flow Diagrams (DFD)

A **data flow diagram** (**DFD**) is a graphical representation of the "flow" of data through an information system, modeling its *process* aspects. A DFD is often used as a preliminary step to create an overview of the system without going into great detail, which can later be elaborated.[2] DFDs can also be used for the visualization of data processing (structured design)

Entity Relationship Diagram (ERD)

An entity-relationship diagram (ERD) is a data modeling technique that graphically illustrates an information system's entities and the relationships between those entities. An ERD is a conceptual and representational model of data used to represent the entity framework infrastructure.

The elements of an ERD are:

- Entities
- Relationships
- Attributes

Steps involved in creating an ERD include:

1. Identifying and defining the entities
2. Determining all interactions between the entities
3. Analyzing the nature of interactions/determining the cardinality of the relationships
4. Creating the ERD

The Relational Schema of the developing system is shown below:

1.Customer(Uid, fname, lname, Uname, password, Phone_no, Address, loation, Pin**)**

2.product(pid,category_id,brand_id,pname,dom,bbd,price,stock,discount, net_price, net_weight,details,image, availiability,entry_time**)**

3.brand(brand_id,brand_name**)**

4.category(category_id,category_name**)**

5.cart(cart_id,uid,uname,pid,price,time**)**

6.order_custome(order_id,uid,uname,adderss,location,no_of_item,total_amount ,order_time, status**)**

7.order_product(id,pid,order_id**)**

8.feedback(fid,uname,subject,comments,time**)**

9.admin(admin_id,name,password**)**

9. PROJECT PLANNING AND SCHEDULING

The development time including database design, screen designing and coding and testing is one month. First two months the screen, database design and system design will be over. Second and third month is for developing modules, architecture design and coding the site. Rest will be for testing and error correction.

	1-2 Week	2-3 Week	3-4 Week	5-6 Week
Requirement Gathering				
Design				
Test Cases				
Coding				
Quality Assurance				
Testing				
Build				

10. Testing

Software testing is the process of evaluation a software item to detect differences between given input and expected output. Also to assess the feature of A software item. Testing assesses the quality of the product. Software testing is a process that should be done during the development process. In other words software testing is a verification and validation process.

Verification

Verification is the process to make sure the product satisfies the conditions imposed at the start of the development phase. In other words, to make sure the product behaves the way we want it to.

Validation

Validation is the process to make sure the product satisfies the specified requirements at the end of the development phase. In other words, to make sure the product is built as per customer requirements.

Basics of software testing

There are two basics of software testing: blackbox testing and whitebox testing.

Blackbox Testing

Black box testing is a testing technique that ignores the internal mechanism of the system and focuses on the output generated against any input and execution of the system. It is also called functional testing.

Whitebox **Testing**

White box testing is a testing technique that takes into account the internal mechanism of a system. It is also called structural testing and glass box testing.

Black box testing is often used for validation and white box testing is often used for verification.

Types of testing

There are many types of testing like

- Unit Testing
- Integration Testing
- Functional Testing
- System Testing
- Stress Testing
- Performance Testing

- Usability Testing
- Acceptance Testing
- Regression Testing
- Beta Testing

Unit Testing

Unit testing is the testing of an individual unit or group of related units. It falls under the class of white box testing. It is often done by the programmer to test that the unit he/she has implemented is producing expected output against given input.

Integration Testing

Integration testing is testing in which a group of components are combined to produce output. Also, the interaction between software and hardware is tested in integration testing if software and hardware components have any relation. It may fall under both white box testing and black box testing.

Functional Testing

Functional testing is the testing to ensure that the specified functionality required in the system requirements works. It falls under the class of black box testing.

System Testing

System testing is the testing to ensure that by putting the software in different environments (e.g., Operating Systems) it still works. System testing is done with full system implementation and environment. It falls under the class of black box testing.

Stress Testing

Stress testing is the testing to evaluate how system behaves under unfavorable conditions. Testing is conducted at beyond limits of the specifications. It falls under the class of black box testing.

Performance Testing

Performance testing is the testing to assess the speed and effectiveness of the system and to make sure it is generating results within a specified time as in performance requirements. It falls under the class of black box testing.

Usability Testing

Usability testing is performed to the perspective of the client, to evaluate how the GUI is user-friendly? How easily can the client learn? After learning how to use, how proficiently can the client perform? How pleasing is it to use its design? This falls under the class of black box testing.

Acceptance Testing

Acceptance testing is often done by the customer to ensure that the delivered product meets the requirements and works as the customer expected. It falls under the class of black box testing.

Regression Testing

Regression testing is the testing after modification of a system, component, or a group of related units to ensure that the modification is working correctly and is not damaging or imposing other modules to produce unexpected results. It falls under the class of black box testing.

Beta Testing

Beta testing is the testing which is done by end users, a team outside development, or publicly releasing full pre-version of the product which is known as beta version. The aim of beta testing is to cover unexpected errors. It falls under the class of black box testing.

11. IMPLEMENTATION OF SECURITY MECHANISMS AT VARIOUS LEVELS

The modules data is stored in the database. It can be accessed only by user who is having access permission. Access control module also gives security to all application modules. This module is for administrative purpose for giving task level permission to users of the Application.

Security refers to the protection of data against unauthorized access, alteration, or destruction. Security measures are applied to the proposed system at different levels. There are two type of access to the system, one for administrative purposes and other for the client activities. It provides high security because a client can modify only permitted areas. Primary Key validation is used in this project. Password protection is provided at the application level, so that the unauthorized users have no access to the application.

12. FUTURE SCOPE AND ENHANCEMENT

This software will help to reduce manual effort and time. It also provides security. The proposed system is user-friendly and every aspects of this system can be easily understood and the user can operate the system easily. We have planned to develop this software as independent in nature and cost effective. As the saying goes “There is always scope for the improvement in every system”, even this system could be improved at various stages.

The enhancements are

- Payment through Net banking and Debit/Credit card facility.
- Payment through paytm and PayPal.

- EMI facility.
- Alerts through SMS/Email and fax etc.
- Customer Comments and Rating on Products.
- *Customer can invite his/her friends or relative via facebook, twitter,whatsapp to purchase grocery products from this website. If his/her friends or relative sign up and buy some products then the customer who referred will earn some percentage of money which will directly credited to that customer's bank account.*

  (e.g.: 'A' is a customer of this website and he/she fill bank details for this earning purpose. Now when he invite 'B' a referring number will be send with invitation and tell him/her (B) when he/she sign up just mention the 'referring number'. After B sign up with A's referring number and purchase some products a minimum percentage of those products will added to customer bank account and a sms/mail will send to customer A. The percentage will be controlled by the admin.)
- Track Regular and Loyal Customers (Likely to refer this website to his/her friends) to give them personally discount offer. (e.g.: If a customer purchases same products on regular basics, then the system should track all those records and generate some discount offer automatically. Then this offer will be given to the customer profile and SMS/email alert after Admin's permission.)
- Distributed environment in admin section like admin could be manager or employee or accountant.
- We can add supplier portion in this project.

13. Bibliography

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