**REENA MEHTA COLLEGE**

***(Affiliated to University of Mumbai)***

##### BHAYANDER (WEST), THANE-401107

**DEPARTMENT OF INFORMATION TECHNOLOGY**



**CERTIFICATE**

This is to certify that the project entitled, **"Online Food Ordering System"**, is combined work of

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Submitted in partial fulfillment of the requirements for the award of degree of BACHELOR OF SCIENCE in INFORMATION TECHNOLOGY from University of Mumbai.

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## Introduction of the Project Online Food Ordering System:

The "Online Food Ordering System" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

It is known globally that, in today’s market, it is extremely difficult to start a new small-scale business and live-through the competition from the well-established and settled owners. In fast paced time of today, when everyone is squeezed for time, the majority of people are finicky when it comes to placing a food order. The customers of today are not only attracted because placing an order online is very convenient but also because they have visibility into the items offered, price and extremely simplified navigation for theorder.

Online ordering system that we are proposing here, greatly simplifies the ordering process for both the customer and the restaurant. System presents an interactive and up-to-date menu with all available options in an easy to use manner. Customer can choose one or more items to place an order which will land in the Cart. Customer can view all the order details in the cart before checking out. At the end, customer gets order confirmation details. Once the order is placed it is entered in the database and retrieved in pretty much real time. This allows Restaurant Employees to quickly go through the orders as they are received and process all orders efficiently and effectively with minimal delays andconfusion

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. Online Food Ordering System , as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of Category, Food Item, Order, Payment, Confirm Order. Every Online Food Ordering System has different Food Item needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources

**Motivation** for designing this application came because we personally do not like waiting for long in the store or to have to call store to place an order especially during the peak lunch or dinner hours. Moreover, I value recent learning about the Programming languages as well as seeing how powerful and dynamic they are when it comes to web designing and applications. The languages used to build this application are JavaScript, HTML and CSS at client facing whereas database at the back-end because I found them to be extremely useful while working on the technologies.

## Abstract of the Project Online Food Ordering System:

ONLINE FOOD ORDER SYSTEM is a website designed primarily

for use in the food delivery industry. This system will allow hotels and restaurants to increase scope of business by reducing the labor cost involved. The system also allows to quickly and easily manage an online menu which customers can browse and use to place orders with just few clicks. Restaurant employees then use these orders through an easy to navigate graphical interface for efficient processing.

Increased demand of restaurant-goers generated the need for much attention for the hospitality industry. Providing much option with ease of ordering and delivering is the need of the hours. Technological interference has become mandatory to improve the quality of the service and business in this industry. Evidences are already existed for partial automation of food ordering process in the country; most of these technologies implemented are based on wireless technologies. The purpose of Online Food Ordering System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling 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 Food Ordering System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to manage for good performance and better services for the clients.

## Aim of the Software

## This software is developed to help computer science students to learn about the Web application designing using HTML and CSS from their basic capabilities to build a complete working application from scratch. Further, it gives insight about how GUI interacts with server-side language, Java, and finally with the back-end database.

## So why is this important?

## The main reason is that it benefits both the customer and the business.

## With a website or mobile app, customers can easily browse all the dishes the restaurant has available, customize dishes to their requirements and place an order. It can also save their favourite orders allowing them to easily re-order that in the future.

## From the restaurants perspective, they no longer spend time taking the customers order, stop worrying about communication errors and streamline their order management workflow.

## Objective of Project on Online Food Ordering System:

## The main objective of the Project on Online Food Ordering System is to manage the details of Food Item, Category, Customer, Order, Confirm Order. It manages all the information about Food Item, Payment, Confirm Order, Food Item. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Food Item, Category, Payment, Customer. It tracks all the details about the Customer, Order, Confirm Order. With the improvement of technology, online food ordering systems are becoming a popular topic. That's because they are serving the ever increasing demand for convince. The main purpose of an online ordering system is to provide customers for a way to place an order at a restaurant over the internet.

**Background and Related work**

This Case study looks at the problem of setting up a fast food restaurant. In existing system there are few problems:

• For placing any orders customers have to visit hotels or restaurants to know about food items and then place order and pay. In this method time and manual work is required.

• While placing an order over the phone, customer lacks the physical copy of the menu item, lack of visual confirmation that the order was placed correctly.

• Every restaurant needs certain employees to take the order over phone or in-person, to offer a rich dining experience and process the payment. In today’s market, labor rates are increasing day by day making it difficult to find employees when needed.

Hence, to solve this issue, what I propose is an “Online Food Order System, originally designed for small scale business like College Cafeterias, Fast Food restaurant or Take-Out, but this system is just as applicable in any food delivery industry.

The main advantage of my system is that it greatly simplifies the ordering process for both the customer and the restaurant and also greatly lightens the load on the restaurant’s end, as the entire process of taking orders is automated.

Anticipated Benefits are:

1. This will minimize the number of employees at the back of the counter.

2. The system will help to reduce labor cost involved.

3. The system will be less probable to make mistake, since it’s a machine.

4. This will avoid long queues at the counter due to the speed of execution and number of optimum screens to accommodate the maximum throughput.

**Functionalities provided by Online Food Ordering System are as follows:**

* Provides the searching facilities based on various factors. Such as Food Item, Customer, Order, Confirm Order.
* Online Food Ordering System also manage the Payment details online for Order details, Confirm Order details, Food Item.
* It tracks all the information of Category, Payment, Order etc
* Manage the information of Category
* Shows the information and description of the Food Item, Customer
* To increase efficiency of managing the Food Item, Category
* It deals with monitoring the information and transactions of Order.
* Manage the information of Food Item
* Editing, adding and updating of Records is improved which results in proper resource management of Food Item data.
* Manage the information of Order
* Integration of all records of Confirm Order.

## System Model

## This is the diagrammatic representation of the model.

## 

## The structure of the system can be divided into 3 main logical components:

## • Web Ordering System- provides the functionality for customers to place their order and supply necessary details.

## • Menu Management-allows the restaurant to control what can be ordered by the customers

## • Order Retrieval System-This is a final logical component. Allows restaurant to keep track of all orders placed. This component takes care of order retrieving and displaying order information.

## Scope of the project Online Food Ordering System

The food industry is a combination of many diverse businesses and it is responsible for feeding the world population. This group excludes hunter-gatherers and those who do subsistence farming.

Parts of the food industry include agriculture, online food service, and much more. Since the growth of the food industry is assured, anxious promoters can invest their money in the food industry will reap benefits. Under food service, there are many places where these promoters can invest money in. Before, people used to buy food either directly from the restaurants or order over the phone. However, this has changed and people have started ordering online.

It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works relative to Online Food Ordering System. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

Our project aims at Business process automation, i.e. we have tried to computerize various processes of Online Food Ordering System.

* + In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time.
  + In computer system, it is not necessary to create the manifest but we can directly print it, which saves our time.
  + To assist the staff in capturing the effort spent on their respective working areas.
  + To utilize resources in an efficient manner by increasing their productivity through automation.
  + The system generates types of information that can be used for various purposes.
  + It satisfy the user requirement
  + Be easy to understand by the user and operator
  + Be easy to operate
  + Have a good user interface
  + Be expandable
  + Delivered on schedule within the budget.

## 

## Why is this so?

## In today’s world, almost all kinds of businesses have started opening shops online. You can see shoes and clothes being sold online. So, it is only a matter of time before food was sold online. The revenue got by selling food online is going to increase in every major country. Thus, promoters who can develop a superb online food ordering software will be able to reap profits.

## Easier to get food

## Getting ready-made food is now easier than it was in the past. In fact, food outlets are providing people with meals throughout the day based on the monthly subscription. This arrangement is well suited for the young professionals of today.

## Reports of Online Food Ordering System:

* It generates the report on Food Item, Category, Payment
* Provide filter reports on Customer, Order, Confirm Order
* You can easily export PDF for the Food Item, Payment, Order
* Application also provides excel export for Category, Customer, Confirm Order
* You can also export the report into csv format for Food Item, Category, Confirm Order

## Modules of Online Food Ordering System:

## Web Ordering System Module

## Customers of the Web Ordering system will interact with the application through an easy to use top navigation menu.

## “Home” menu option: allows the users to see all food items offered with nice images as well as select an item to place anorder

## “Menu”menu option: a ‘Drop-Down’ menu, allows users to see all food items per category. Item can then be added to the cart using a single buttonclick.

## “My Cart”menuoption:

## Allows users to see details of the items placed in cart. Details include Item , Product Name, Product Image, Product Description, Quantity, Unit Price, Total per item and final Total of the order. It also allows ‘Update’ and ‘Delete’ an item using single button click. User can then use a ‘Proceed to checkout’ button to proceedfurther.

## Once, Check Out button is selected, user will be prompted for the Sign In/Sign Up process if not logged in else user will be presented with a simple “Payment Information” form. User will be asked to provide all required details in displayed text boxes and make appropriate Drop- down selections. Then, all this information can be saved using a ‘Save’button.

## User will then be presented with a “Review Order” page, which will display Payment Information along with Order details to review. User can then use a ‘Check Out’ button to place anorder.

## Once order is placed, user will be presented with appropriate Order confirmation success/failuremessage.

## “MyAccount”: a “Drop Down” menu will display the user orders, Sign In and Sign Outoptions.

## Menu Management System Module

## Similar to Web ordering system, this module presents Admin with below additional options under “MyAccount” Drop down menu:

## Add Category: Allows to add a food Category name in a simpleform.

## Add Product: Allows to add Product Name, Description, Price and choose .

## Category in a simple form along with ProductImage.

## Modify Product: Allows updating or deleting productdetails.

## Order Retrieval System Module

## The application will automatically fetch new orders from the database at regular intervals and display the order numbers.

## Under “MyAcoount’ menu a customer will be able to see only his/her order whereas a Restaurant Employee or an Admin can see all usersorders.

## To view the details of an order, the user must click on that order number, which will display all order details This structure can intuitively be expanded and collapsed to display only the desired information.

* Food Item Management Module: Used for managing the Food Item details.
* Confirm Order Module : Used for managing the details of Confirm Order
* Payment Module : Used for managing the details of Payment
* Category Management Module: Used for managing the information and details of the Category.
* Customer Module : Used for managing the Customer details
* Order Module : Used for managing the Order informations
* Login Module: Used for managing the login details
* Users Module : Used for managing the users of the system

**Implementation**

Hardware/Software Interface:

This section lists the minimum hardware and software requirements needed to run the system efficiently.

Hardware Interface:

• Intel Processor

• 500 MB of free hard-drive space

• 4GB of RAM

Software Interface:

• Operating System: Windows (Vista/7 or above)

• Web Browser: Google Chrome

• Drivers: Java Runtime Environment

All users of the system, are provided with below menu options:

Home, Menu, My Cart, UserAccount, AboutUs and Contact

## Input Data and Validation of Project on Online Food Ordering System

* All the fields such as Food Item, Customer, Confirm Order are validated and does not take invalid values
* Each form for Food Item, Category, Payment can not accept blank value fields
* Avoiding errors in data
* Controlling amount of input
* Integration of all the modules/forms in the system.
* Preparation of the test cases.
* Preparation of the possible test data with all the validation checks.
* Actual testing done manually.
* Recording of all the reproduced errors.
* Modifications done for the errors found during testing.
* Prepared the test result scripts after rectification of the errors.
* Functionality of the entire module/forms.
* Validations for user input.
* Checking of the Coding standards to be maintained during coding.
* Testing the module with all the possible test data.
* Testing of the functionality involving all type of calculations etc.
* Commenting standard in the source files.

**The software quality plan we will use the following SQA Strategy:**

* In the first step, we will select the test factors and rank them. The selected test factors such as reliability, maintainability, portability or etc, will be placed in the matrix according to their ranks.
* The second step is for identifying the phases of the development process. The phase should be recorded in the matrix.
* The third step is that identifying the business risks of the software deliverables. The risks will be ranked into three ranks such as high, medium and low.

## Features of the project Online Food Ordering System:

* Product and Component based
* Creating & Changing Issues at ease
* Query Issue List to any depth
* Reporting & Charting in more comprehensive way
* User Accounts to control the access and maintain security
* Simple Status & Resolutions
* Multi-level Priorities & Severities.
* Targets & Milestones for guiding the programmers
* Attachments & Additional Comments for more information
* Robust database back-end
* Various level of reports available with a lot of filter criteria’s
* It contain better storage capacity.
* Accuracy in work.
* Easy & fast retrieval of information.
* Well designed reports.
* Decrease the load of the person involve in existing manual system.
* Access of any information individually.
* Work becomes very speedy.
* Easy to update information

## System Evolution

## The heart of the entire ordering system is the Database. Currently the system is only available for small scale restaurants. For Large restaurants, performance considerations should be taken into account in terms of Hardware/Software capacity/Page load time etc. Also, security vulnerabilities should be evaluated for large scale systems.

## In future this can also be available as a Mobile application and can be integrated with in store Touch Screen Order devices.

## We are also certain that if this system goes into actual use, many requests will arise for additional features which I had not previously considered, but would be useful to have. For this reason, I feel as though the application can be constantly evolving, which we consider a very good thing.

## Software Requirement Specification

The Software Requirements Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavioral description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

**The proposed system has the following requirements:**

* System needs store information about new entry of Food Item.
* System needs to help the internal staff to keep information of Category and find them as per various queries.
* System need to maintain quantity record.
* System need to keep the record of Customer.
* System need to update and delete the record.
* System also needs a search area.
* It also needs a security system to prevent data.

## Identification of need:

The old manual system was suffering from a series of drawbacks. Since whole of the system was to be maintained with hands the process of keeping, maintaining and retrieving the information was very tedious and lengthy. The records were never used to be in a systematic order. there used to be lots of difficulties in associating any particular transaction with a particular context. If any information was to be found it was required to go through the different registers, documents there would never exist anything like report generation. There would always be unnecessary consumption of time while entering records and retrieving records. One more problem was that it was very difficult to find errors while entering the records. Once the records were entered it was very difficult to update these records.

The reason behind it is that there is lot of information to be maintained and have to be kept in mind while running the business .For this reason we have provided features Present system is partially automated (computerized), actually existing system is quite laborious as one has to enter same information at three different places.

**Following points should be well considered:**

* Documents and reports that must be provided by the new system: there can also be few reports, which can help management in decision-making and cost controlling, but since these reports do not get required attention, such kind of reports and information were also identified and given required attention.
* Details of the information needed for each document and report.
* The required frequency and distribution for each document.
* Probable sources of information for each document and report.
* With the implementation of computerized system, the task of keeping records in an organized manner will be solved. The greatest of all is the retrieval of information, which will be at the click of the mouse. So the proposed system helps in saving the time in different operations and making information flow easy giving valuable reports.

## Feasibility Study:

## At the present moment, the system is entirely functional, save the few minor bugs which are bound to present themselves during more extensive testing. A user is currently able to register and log in to the website and place an order. That order is then displayed, correctly and completely, in the order retrieval desktop application. Much of what is left to do focuses not on improving functionality, but rather on improving user experience by creating richer graphical interfaces for the user to interact with and modifying the application’s icons and color schemes to make them more pleasing to look at and use. For this reason, I feel that completing the project in the required timeframe is very feasible, particularly if I am able to adhere to the dates outlined below.

## In addition to time, a second factor influencing feasibility is resources, which also should not be a concern here. The online ordering system is structured like a fairly standard web application, and as such requires no special hardware and only basic software, namely web and database servers, to function properly. Therefore, I anticipate finishing all of the required work on time or, ideally, ahead of schedule, leaving me with time to investigate a few additional features I would like to add but are not integral to the system.

After doing the project Online Food Ordering System, study and analyzing all the existing or required functionalities of the system, the next task is to do the feasibility study for the project. All projects are feasible - given unlimited resources and infinite time.

Feasibility study includes consideration of all the possible ways to provide a solution to the given problem. The proposed solution should satisfy all the user requirements and should be flexible enough so that future changes can be easily done based on the future upcoming requirements.

1. **Economical Feasibility**

This is a very important aspect to be considered while developing a project. We decided the technology based on minimum possible cost factor.

* + All hardware and software cost has to be borne by the organization.
  + Overall we have estimated that the benefits the organization is going to receive from the proposed system will surely overcome the initial costs and the later on running cost for system.

### Technical Feasibility

This included the study of function, performance and constraints that may affect the ability to achieve an acceptable system. For this feasibility study, we studied complete functionality to be provided in the system, as described in the System Requirement Specification (SRS), and checked if everything was possible using different type of frontend and backend plaformst..

### Operational Feasibility

No doubt the proposed system is fully GUI based that is very user friendly and all inputs to be taken all self-explanatory even to a layman. Besides, a proper training has been conducted to let know the essence of the system to the users so that they feel comfortable with new system. As far our study is concerned the clients are comfortable and happy as the system has cut down their loads and doing.

## System Design of Online Food Ordering System

In this phase, a logical system is built which fulfils the given requirements. Design phase of software development deals with transforming the clients’s requirements into a logically working system. Normally, design is performed in the following in the following two steps:

1. **Primary Design Phase:**

In this phase, the system is designed at block level. The blocks are created on the basis of analysis done in the problem identification phase. Different blocks are created for different functions emphasis is put on minimising the information flow between blocks. Thus, all activities which require more interaction are kept in one block.

### Secondary Design Phase:

In the secondary phase the detailed design of every block is performed.

### The general tasks involved in the design process are the following:

1. Design various blocks for overall system processes.
2. Design smaller, compact and workable modules in each block.
3. Design various database structures.
4. Specify details of programs to achieve desired functionality.
5. Design the form of inputs, and outputs of the system.
6. Perform documentation of the design.
7. System reviews.

## User Interface Design

User Interface Design is concerned with the dialogue between a user and the computer. It is concerned with everything from starting the system or logging into the system to the eventually presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

**The following steps are various guidelines for User Interface Design:**

1. The system user should always be aware of what to do next.
2. The screen should be formatted so that various types of information, instructions and messages always appear in the same general display area.
3. Message, instructions or information should be displayed long enough to allow the system user to read them.
4. Use display attributes sparingly.
5. Default values for fields and answers to be entered by the user should be specified.
6. A user should not be allowed to proceed without correcting an error.
7. The system user should never get an operating system message or fatal error.

## Preliminary Product Description:

The first step in the system development life cycle is the preliminary investigation to determine the feasibility of the system. The purpose of the preliminary investigation is to evaluate project requests. It is not a design study nor does it include the collection of details to describe the business system in all respect. Rather, it is the collecting of information that helps committee members to evaluate the merits of the project request and make an informed judgment about the feasibility of the proposed project.

**Analysts working on the preliminary investigation should accomplish the following objectives:**

* Clarify and understand the project request
* Determine the size of the project.
* Assess costs and benefits of alternative approaches.
* Determine the technical and operational feasibility of alternative approaches.
* Report the findings to management, with recommendations outlining the acceptance or rejection of the proposal.

### Benefit to Organization

The organization will obviously be able to gain benefits such as savings in operating cost, reduction in paperwork, better utilization of human resources and more presentable image increasing goodwill.

### The Initial Cost

The initial cost of setting up the system will include the cost of hardware software (OS, add-on software, utilities) & labour (setup & maintenance). The same has to bear by the organization.

### Running Cost

Besides, the initial cost the long term cost will include the running cost for the system including the AMC, stationary charges, cost for human resources, cost for update/renewal of various related software.

### Need for Training

The users along with the administrator need to be trained at the time of implementation of the system for smooth running of the system. The client will provide the training site.

We talked to the management people who were managing a the financial issues of the center, the staff who were keeping the records in lots of registers and the reporting manager regarding their existing system, their requirements and their expectations from the new proposed system. Then, we did the system study of the entire system based on their requirements and the additional features they wanted to incorporate in this system.

Reliable, accurate and secure data was also considered to be a complex task without this proposed system. Because there was no such record for keeping track of all the activities, which was done by the Online Food Ordering System on the daily basis.

The new system proposed and then developed by me will ease the task of the organization in consideration. It will be helpful in generating the required reports by the staff, which will help them to track their progress and services.

Thus, it will ease the task of Management to a great extent as all the major activities to be performed, are computerized through this system.

## Project Planning:

Software project plan can be viewed as the following:

1. **Within the organization:** How the project is to be implemented? What are various constraints (time, cost, staff)? What is market strategy?
2. **With respect to the customer:** Weekly or timely meetings with the customer with presentation on status reports. Customers feedback is also taken and further modification and developments are done. Project milestones and deliverables are also presented to the customer.

**For a successful software project, the following steps can be followed:**

* + Select a project
    - Identifying project’s aims and objectives
    - Understanding requirements and specification
    - Methods of analysis, design and implementation
    - Testing techniques
    - Documentation
  + Project milestones and deliverables
  + Budget allocation
    - Exceeding limits within control
  + Project Estimates
    - Cost
    - Time
    - Size of code
    - Duration
  + Resource Allocation
    - Hardware
    - Software
    - Previous relevant project information
    - Digital Library
  + Risk Management
    - Risk avoidance
    - Risk detection

### Cost estimation of the project:

Software cost comprises a small percentage of overall computer-based system cost. There are a number of factors, which are considered, that can affect the ultimate cost of the software such as - human, technical, Hardware and Software availability etc.

The main point that was considered during the cost estimation of **project** was its sizing. In spite of complete software sizing, function point and approximate lines of code were also used to "size" each element of the Software and their costing.

The cost estimation done by me for **Project** also depend upon the baseline metrics collected from past projects and these were used in conjunction with estimation variables to develop cost and effort projections.

We have basically estimated this project mainly on two bases –

1. **Effort Estimation -** This refers to the total man-hours required for the development of the project. It even includes the time required for doing documentation and user manual.
2. **Hardware Required Estimation -** This includes the cost of the PCs and the hardware cost required for development of this project.

### Tools / Platform, Hardware and Software Requirement specifications

**Software Requirements:**

|  |  |
| --- | --- |
| **Name of component** | **Specification** |
| **Operating System** | Windows 98, Windows XP, Windows7,  Linux |
| **Language** | PHP |
| **Database** | php |
| **Browser** | Any of Chrome, Mozilla, Opera, etc. |
| **Web Server** | Any compatible |

### Hardware Requirements:

|  |  |
| --- | --- |
| **Name of component** | **Specification** |
| **Processor** | Pentium III 630MHz |
| **RAM** | 128 MB |
| **Hard disk** | 20 GB |
| **Monitor** | 15” color monitor |
| **Keyboard** | 122 keys |

# Security Testing of the Project

Testing is vital for the success of any software. no system design is ever perfect. Testing is also carried in two phases. first phase is during the software engineering that is during the module creation. second phase is after the completion of software. this is system testing which verifies that the whole set of programs hanged together.

#### White Box Testing:

In this technique, the close examination of the logical parts through the software are tested by cases that exercise species sets of conditions or loops. all logical parts of the software checked once. errors that can be corrected using this technique are typographical errors, logical expressions which should be executed once may be getting executed more than once and error resulting by using wrong controls and loops. When the box testing tests all the independent part within a module a logical decisions on their true and the false side are exercised , all loops and bounds within their operational bounds were exercised and internal data structure to ensure their validity were exercised once.

#### Black Box Testing:

This method enables the software engineer to device sets of input techniques that fully exercise all functional requirements for a program. black box testing tests the input, the output and the external data. it checks whether the input data is correct and whether we are getting the desired output.

#### Alpha Testing:

Acceptance testing is also sometimes called alpha testing. Be spoke systems are developed for a single customer. The alpha testing proceeds until the system developer and the customer agree that the provided system is an acceptable implementation of the system requirements.

#### Beta Testing:

On the other hand, when a system isto be marked as a software product, another process called beta testing is often conducted. During beta testing, a system is delivered among a number of potential users who agree to use it. The customers then report problems to the developers. This provides the product for real use and detects errors which may not have been anticipated by the system developers.

#### Unit Testing:

Each module is considered independently. it focuses on each unit of software as implemented in the source code. it is white box testing.

#### Integration Testing:

Integration testing aims at constructing the program structure while at the same constructing tests to uncover errors associated with interfacing the modules. modules are integrated by using the top down approach.

#### Validation Testing:

Validation testing was performed to ensure that all the functional and performance requirements are met.

#### System Testing:

It is executing programs to check logical changes made in it with intention of finding errors. a system is tested for online response, volume of transaction, recovery from failure etc. System testing is done to ensure that the system satisfies all the user requirements.

**Implementation and Software Specification Testings**

#### Detailed Design of Implementation

This phase of the systems development life cycle refines hardware and software specifications, establishes programming plans, trains users and implements extensive testing procedures, to evaluate design and operating specifications and/or provide the basis for further modification.

#### Technical Design

This activity builds upon specifications produced during new system design, adding detailed technical specifications and documentation.

#### Test Specifications and Planning

This activity prepares detailed test specifications for individual modules and programs, job streams, subsystems, and for the system as a whole.

#### Programming and Testing

This activity encompasses actual development, writing, and testing of program units or modules.

#### User Training

This activity encompasses writing user procedure manuals, preparation of user training materials, conducting training programs, and testing procedures.

#### Acceptance Test

A final procedural review to demonstrate a system and secure user approval before a system becomes operational.

#### Installation Phase

In this phase the new Computerized system is installed, the conversion to new procedures is fully implemented, and the potential of the new system is explored.

#### System Installation

The process of starting the actual use of a system and training user personnel in its operation.

#### Review Phase

This phase evaluates the successes and failures during a systems development project, and to measure the results of a new Computerized Transystem in terms of benefits and savings projected at the start of the project.

#### Development Recap

A review of a project immediately after completion to find successes and potential problems in future work.

#### Post-Implementation Review

A review, conducted after a new system has been in operation for some time, to evaluate actual system performance against original expectations and projections for cost-benefit improvements. Also identifies maintenance projects to enhance or improve the system.

#### THE STEPS IN THE SOFTWARE TESTING

The steps involved during Unit testing are as follows:

1. Preparation of the test cases.
2. Preparation of the possible test data with all the validation checks.
3. Complete code review of the module.
4. Actual testing done manually.
5. Modifications done for the errors found during testing.
6. Prepared the test result scripts.

#### The unit testing done included the testing of the following items:

* 1. Functionality of the entire module/forms.
  2. Validations for user input.
  3. Checking of the Coding standards to be maintained during coding.
  4. Testing the module with all the possible test data.
  5. Testing of the functionality involving all type of calculations etc.
  6. Commenting standard in the source files.

After completing the Unit testing of all the modules, the whole system is integrated with all its dependencies in that module. While System Integration, We integrated the modules one by one and tested the system at each step. This helped in reduction of errors at the time of the system testing.

#### The steps involved during System testing are as follows:

* Integration of all the modules/forms in the system.
* Preparation of the test cases.
* Preparation of the possible test data with all the validation checks.
* Actual testing done manually.
* Recording of all the reproduced errors.
* Modifications done for the errors found during testing.
* Prepared the test result scripts after rectification of the errors.

#### The System Testing done included the testing of the following items:

1. Functionality of the entire system as a whole.
2. User Interface of the system.
3. Testing the dependent modules together with all the possible test data scripts.
4. Verification and Validation testing.
5. Testing the reports with all its functionality.

After the completion of system testing, the next following phase was the Acceptance Testing. Clients at their end did this and accepted the system with appreciation. Thus, we reached the final phase of the project delivery.

#### There are other six tests, which fall under special category. They are described below:

* Peak Load Test: It determines whether the system will handle the volume of activities that occur when the system is at the peak of its processing demand. For example, test the system by activating all terminals at the same time.
* Storage Testing: It determines the capacity of the system to store transaction data on a disk or in other files.
* Performance Time Testing: it determines the length of time system used by the system to process transaction data. This test is conducted prior to implementation to determine how long it takes to get a response to an inquiry, make a backup copy of a file, or send a transmission and get a response.
* Recovery Testing: This testing determines the ability of user to recover data or re-start system after failure. For example, load backup copy of data and resume processing without data or integrity loss.
* Procedure Testing: It determines the clarity of documentation on operation and uses of system by having users do exactly what manuals request. For example, powering down system at the end of week or responding to paper-out light on printer.
* Human Factors Testing: It determines how users will use the system when processing data or preparing reports.

**System Analysis:**

System analysis is a process of gathering and interpreting facts, diagnosing problems and the information about the Online Food Ordering System to recommend improvements on the system. It is a problem solving activity that requires intensive communication between the system users and system developers. System analysis or study is an important phase of any system development process. The system is studied to the minutest detail and analyzed. The system analyst plays the role of the interrogator and dwells deep into the working of the present system. The system is viewed as a whole and the input to the system are identified. The outputs from the organizations are traced to the various processes. System analysis is concerned with becoming aware of the problem, identifying the relevant and decisional variables, analyzing and synthesizing the various factors and determining an optimal or at least a satisfactory solution or program of action. A detailed study of the process must be made by various techniques like interviews, questionnaires etc. The data collected by these sources must be scrutinized to arrive to a conclusion. The conclusion is an understanding of how the system functions. This system is called the existing system. Now the existing system is subjected to close study and problem areas are identified. The designer now functions as a problem solver and tries to sort out the difficulties that the enterprise faces. The solutions are given as proposals. The proposal is then weighed with the existing system analytically and the best one is selected. The proposal is presented to the user for an endorsement by the user. The proposal is reviewed on user request and suitable changes are made. This is loop that ends as soon as the user is satisfied with proposal. Preliminary study is the process of gathering and interpreting facts, using the information for further studies on the system. Preliminary study is problem solving activity that requires intensive communication between the system users and system developers. It does various feasibility studies. In these studies a rough figure of the system activities can be obtained, from which the decision about the strategies to be followed for effective system study and analysis can be taken.

### Existing System of Online Food Ordering System:

In the existing system the exams are done only manually but in proposed system we have to computerize the exams using this application.

* + Lack of security of data.
  + More man power.
  + Time consuming.
  + Consumes large volume of pare work.
  + Needs manual calculations.
  + No direct role for the higher officials

### Proposed System of Online Food Ordering System:

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work.

* + Security of data.
  + Ensure data accuracy’s.
  + Proper control of the higher officials.
  + Minimize manual data entry.
  + Minimum time needed for the various processing.
  + Greater efficiency.
  + Better service.
  + User friendliness and interactive.
  + Minimum time required.

### Conclusion of the Project Online Food Ordering System:

### The main objective of the application is to help Computer Science students understands the basics of Java, JavaScript and HTML. The following results have been achieved after completing the system and relate back to the system’s objective.

### • Should allow Computer Science students to browse through the code and application:

### This can be achieved when students are able to run and install the application. When they run the application, they can browse through the implementation of different objects.

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### • Should allow users to browse through different product categories: This is achieved through an easy to use graphical interface menu options.

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### • Should allow users to save items to the cart and view detailed information about the order: The users can add any number of items to the cart from any of the available food categories by simply clicking the Add to Cart button for each item. Once item is added to the cart, user is presented with detailed order to review or continue shopping.

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### • Should allow the user to CheckOut the item(s): This is achieved using the “Proceed to checkout button” in the cart initially and then “CheckOut” button at last step after “review Order” step.. Button is disabled when there are no items in the cart.

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### • Should allow the user to process the payment: This is achieved when user selects “Processed to Checkout” button and fill up the Payment information details.

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### • Should allow the user to see Success message after placing an order: This is achieved when user successfully places an order. The user is given the order conformation number along with success message.

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

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### At the end it is concluded that we have made effort on following points…

* A description of the background and context of the project and its relation to work already done in the area.
* Made statement of the aims and objectives of the project.
* The description of Purpose, Scope, and applicability.
* We define the problem on which we are working in the project.
* We describe the requirement Specifications of the system and the actions that can be done on these things.
* We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.
* We included features and operations in detail, including screen layouts.
* We designed user interface and security issues related to system.
* Finally the system is implemented and tested according to test cases.

## Future Scope of the Project:

In a nutshell, it can be summarized that the future scope of the project circles around maintaining information regarding:

* We can add printer in future.
* We can give more advance software for Online Food Ordering System including more facilities
* We will host the platform on online servers to make it accessible worldwide
* Integrate multiple load balancers to distribute the loads of the system
* Create the master and slave database structure to reduce the overload of the database queries
* Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers

The above mentioned points are the enhancements which can be done to increase the applicability and usage of this project. Here we can maintain the records of Food Item and Category. Also, as it can be seen that now-a-days the players are versatile,

i.e. so there is a scope for introducing a method to maintain the Online Food Ordering System. Enhancements can be done to maintain all the Food Item, Category, Customer, Order, Confirm Order.

We have left all the options open so that if there is any other future requirement in the system by the user for the enhancement of the system then it is possible to implement them.In the last we would like to thanks all the persons involved in the development of the system directly or indirectly. We hope that the project will serve its purpose for which it is develop there by underlining success of process.

## Limitation of Project on Online Food Ordering System

Although I have put my best efforts to make the software flexible, easy to operate but limitations cannot be ruled out even by me. Though the software presents a broad range of options to its users some intricate options could not be covered into it; partly because of logistic and partly due to lack of sophistication. Paucity of time was also major constraint, thus it was not possible to make the software foolproof and dynamic. Lack of time also compelled me to ignore some part such as storing old result of the candidate etc.

Considerable efforts have made the software easy to operate even for the people not related to the field of computers but it is acknowledged that a layman may find it a bit problematic at the first instance. The user is provided help at each step for his convenience in working with the software.

**List of limitations which is available in the Online Food Ordering System:**

* Excel export has not been developed for Food Item, Category due to some criticality.
* The transactions are executed in off-line mode, hence on-line data for Customer, Order capture and modification is not possible.
* Off-line reports of Food Item, Confirm Order, Customer cannot be generated due to batch mode execution.

### Future Work :

### The following section describes the work that will be implemented with future releases of the software.

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### • Customize orders: Allow customers to customize food orders

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### • Enhance User Interface by adding more user interactive features. Provide Deals and promotional Offer details to home page. Provide Recipes of the Week/Day to Home Page

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### • Payment Options: Add different payment options such as Online payments, Cash, Gift Cards etc. Allow to save payment details for future use.

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### • Allow to process an order as a Guest

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### • Delivery Options: Add delivery option

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### • Order Process Estimate: Provide customer a visual graphical order status bar

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### • Order Status: Show only Active orders to Restaurant Employees.

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### • Order Ready notification: Send an Order Ready notification to the customer

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### • Restaurant Locator: Allow to find the restaurant

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### • Integrate with In store touch screen devices like iPad

### Justification

### In today’s age of fast food and take-out, many restaurants have chosen to focus on quick preparation and speedy delivery of orders rather than offering a rich dining experience. Until very recently, all of these delivery orders were placed over the phone, but there are many disadvantages to this system. First, the customer must have a physical copy of the restaurant’s menu to look at while placing their order and this menu must be up to date. While this expectation is not unreasonable, it is certainly inconvenient.

### Second, the orders are placed using strictly oral communication, which makes it far more difficult for the customer to receive immediate feedback on the order they have placed. This often leads to confusion and incorrect orders. The current system is also inconvenient for the restaurant itself, as they must either have a dedicated staff member to answer the phone and take orders, or some employees must perform double-duty, distracting them from their regular tasks.

### What I propose is an online ordering system, originally designed for use in college cafeterias, but just as applicable in any food delivery industry. The main advantage of my system is that it greatly simplifies the ordering process for both the customer and the restaurant. When the customer visits the ordering webpage, they are presented with an interactive and up-to-date menu, complete with all available options and dynamically adjusting prices based on the selected options. After making a selection, the item is then added to their order, which the customer can review the details of at any time before checking out. This provides instant visual confirmation of what was selected and ensures that items in the order are, in fact, what was intended.

### The system also greatly lightens the load on the restaurant’s end, as the entire process of taking orders is automated. Once an order is placed on the webpage, it is placed into the database and then retrieved, in pretty much real-time, by a desktop application on the restaurant’s end. Within this application, all items in the order are displayed, along with their corresponding options and delivery details, in a concise and easy to read manner. This allows restaurant employees to quickly go through the orders as they are placed and produce the necessary items with minimal delay and confusion.

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### While there are already a few systems like this in existence, all those I have encountered have been designed specifically for one restaurant, and thus cater only to their unique needs. Perhaps the greatest advantage of my system is its flexibility. The web order forms are built dynamically from the database, which can be managed using a graphical user interface. This allows the restaurant employees to not only set up and customize the system on their own, but also allows them to make changes to the menu in real time. For this reason, the exact same system can be used by numerous businesses with absolutely no modification to the code itself, which greatly increases its usefulness.

### References and Bibliography:

* + Google for problem solving
  + <http://www.javaworld.com/javaworld/jw-01-1998/jw-01-Credentialreview.html>
  + Database Programming with JDBC and Java by O'Reilly
  + Head First Java 2nd Edition
  + <http://www.jdbc-tutorial.com/>
  + Java and Software Design Concepts by Apress
  + https://[www.tutorialspoint.com/java/](http://www.tutorialspoint.com/java/)
  + <http://www.javatpoint.com/java-tutorial>
  + https://docs.oracle.com/javase/tutorial/
  + <http://www.wampserver.com/en/>
  + <http://www.JSP.net/>
  + <http://www.tutorialspoint.com/mysql/>
  + httpd.apache.org/docs/2.0/misc/tutorials.html