Asynchronous Web Application for Food Ordering

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Abstract - This system is designed in favor of the Food Ordering which helps them to save the records of the Customer details. It helps them from the manual work from which it is very difficult to find the record of the Customer and the food order of the Customers, we design this system on the request of the Food Ordering, through this they cannot require so efficient person to handle and calculate the things. This system automatically calculates all the bills. The Food Ordering create the organize the Customer's record, Maintaining foods, food order, and the other information about the Customer. How many Customers can and the available rooms should be displayed in Food Ordering. The Food Ordering to improve their services for all the Customers of the Hotel. This also reduce the manual work of the persons in admin penal and the bundle of registers that were search when to find the information of a previous Customer, because through this system you can store the data of those Customers. The customers can search for the food and the hotels will be displayed in this website. The system will help you to check the mess bills of every Customer He/she should fill his/her personal profile on the profile page. So that the Customer can be accessed by his/her ID in case of any problem or other thing.

Index Terms – Food Ordering, Customers, Web Application.

I. INTRODUCTION

The project is entitled as "Asynchronous Web Application for Food Ordering" is developed by Angular as front end and Spring boot the back end. This system is designed in favor of the Hotel management, which helps to save the records of the Customers about their rooms and other things. It helps from the manual work from which it is very difficult to find the record of the Customers and the bills of the Customers. All the Hotels at present are managed manually. The Registration form verification to the different data processing are done manually. Thus, there are a lot of repetitions which can be easily avoided. And hence there is a lot of strain on the person who is running the Hotel and software's are not usually used in this context. This particular project and implementation deals with the problems of managing a Hotel and avoids the problems which occur when carried manually Identification of the drawbacks of the existing system leads to the designing of a computerized system that will be compatible to the existing

system with the system which is more user friendly. We can improve the efficiency of the system, thus overcome the drawbacks of steel, through this they cannot require so efficient person to handle and calculate the things. This system automatically calculates all the bills and issued the notifications.

II. SYSTEM DEVELOPMENT

Existing system:

The manual work which it is very difficult to find the record of the Customers. All the Hotels at present are managed manually. The Registration form verification to the different data processing are done manually. Customer attendance is maintained in the register book.

Disadvantages:

- The important and the most significant drawback is that the system is manual.

- There are errors due to carelessness or oversight that may result in loss to the data.

- To maintain our spare parts time consuming is very high.

Proposed System:

Identification of the drawbacks of the existing system leads to the designing of a computerized system that will be compatible to the existing system with the system.

Advantages:

- Less human error
- Strength and strain of manual labour can be reduced
- High security
- Data redundancy can be avoided to some extent

- Data consistency
- Easy to handle
- Easy data updating
- Easy record keeping
- Backup data can be easily generated

III. PROPOSED MODULES

Authentication

Authentication module contains all the information about the authenticated Person. Administrator without his username and password can't enter into the login if he is only the authenticated Person then he can enter to his login. Authentication is the process of verifying the identity of a Person by obtaining some sort of credentials and using those credentials to verify the Users identity. If the credentials are valid, the authorization process starts. Authentication process always proceeds to Authorization process.

Add Food Entry

In food Entry Module Administrator Add food details. It Contains Information about the foodid, type, total amount, amount, status. Administrator only has the permission to Add food Details.

View Order

In this Module Administrator view the order of food by customers. It Contains Information about the CustomerID, Name, PhoneNo, Address, Mailid, foomid, type,total amount,amount,status. Store the information in database. Admin only has the permission View the order Details.

Food Ordering

In Food Entry Module Administrator view the Customer Food Ordering details Contains Information about the Customer Id, Name, Phone

No, mail id, Address foodid, foodname,category,quantity,status.

Customer Registration

In this module Administrator add the Customer Entry. It Contains Information about the Customer Id, Name, Phone No, mail id, Address. The Customer details stored in the database. The Stored Information Maintained Administrator.

Food Ordering

In Food Entry Module Administrator view the Customer Food Ordering details Contains Information about the Customer Id, Name, Phone No, mail id, Address foodid, foodname,category,quantity,status.

View status

In this module Administrator Update the All The Reports Such that Customer Details, food Details, food order details,food order details.

Software Description:

FRONT END:

Angular is an open-source front-end framework developed by Google for creating dynamic, modern web apps. First introduced in 2009, the framework has gained huge traction over the years for eliminating unnecessary code and ensuring lighter & faster apps. Angular is an application design framework and development platform for creating efficient and sophisticated single-page apps. These Angular docs help you learn and use the Angular framework and development platform, from your first application to optimizing complex single-page apps for enterprises. Tutorials and guides include downloadable examples to accelerate the projects.

Angular is basically is an open-source, JavaScript-based client-side framework that helps us to develop a web-based application. Actually, Angular is one of the best frameworks for developing any Single Page Application or SPA Applications. The definition of Angular according to the official documentation of Angular.

Angular helps build interactive and dynamic single page applications (SPAs) with its compelling features including templating, two-way binding, modularization, RESTful API handling, dependency injection, and AJAX handling. Designers can use HTML as template language and even extend HTML' syntax to easily convey the components of the application.

BACK END:

Angular applications are built using TypeScript language, a superscript for JavaScript, which ensures higher security as it supports types (primitives, interfaces, etc.). It helps catch and eliminate errors early when writing the code or performing maintenance tasks.

Unlike Coffee Script or Dart, TypeScript is not a stand-alone language. With TypeScript, you can easily take the existing ES5 or ES2015+ JS code and it will compile it down based on what you are configuring. It fully supports core ES2015 and ES2016/ES2017 features such as decorators or async/await.

You can directly debug TypeScript code in the browser or an editor if you have proper map files created during build time. This language ensures improved navigation, refactoring, and autocompletion services. You can even opt out of its inbuilt features when needed.

IV. TESTING METHODS

It is the process of exercising software with the intent of finding and ultimately correcting errors. This fundamental philosophy does not change for web applications, because web based system and applications reside on network and inter-operate with many different operating systems, browsers, hardware platforms and communication protocols. Thus searching for errors is significant challenge for web applications.

Testing issues:

1. Client GUI should be considered.
2. Target environment and platform considerations
3. Distributed database considerations
4. Distributed processing consideration
5. Testing and Methodologies

System testing is the state of implementation, which is aimed at ensuring that the system works accurately and efficiently as expect before live operation, commences. It certifies that the whole set of programs hang together System testing requires a test plan, that consists of several key activities and steps for run program, string, system and user acceptance testing.

The implementation of newly design package is important in adopting a successful new system 14 Testing is important stage in software development. System test is implementation should be a confirmation that all is correct and an opportunity to show the users that the system works as they expected It accounts the largest percentage of technical effort in software development process.

Testing phase is the development phase that validates the code against the functional specifications. Testing is a vital to the achievement of the system goals. The objective of testing is to discover errors. To fulfill this objective a series of test step such as the unit test, integration test, validation and system test where planned and executed.

Unit testing

Here each program is tested individually so any error apply unit is debugged. The sample data are given for the unit testing. The unit test results are recorded for further references. During unit testing the functions of the program unit validation and the limitations are tested. Unit testing is testing changes made in a existing or new program this test is carried out during the programming and each module is found to be working satisfactorily. For example in the registration form after entering all the fields we click the submit button. When submit button is clicked ,all the data in form are validated. Only after validation entries will be added to the database.

Unit testing comprises the set of tests performed by an individual prior to integration of the unit into large system.

The situation is illustrated in as follows

Coding-> Debugging ->Unit testing -> Integration testing

The four categories of test that a programmer will typically perform on a program unit

1. Functional test
2. Performance test
3. Stress Test
4. Structure test

Validation Testing

Software validation is achieved through a serious of testes that demonstrate conformity with requirements. Thus the proposed system under consideration has been tested by validation & found to be working satisfactory.

Output Testing

Asking the user about the format required by them tests the output generated by the system under consideration. It can be done in two ways, One on screen and other on printer format. The output format on the screen is found to be correct as the format designed n system test.

System Testing

In the system testing the whole system is tested for interface between each modules and program units are tested and recorded. This testing is done with sample data. The securities, communication between interfaces is tested. System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system although each test has a different purpose all work to verify that all system elements properly integrated and perform allocate function.

It involves two kinds of activities namely

1. Integrated testing
2. Acceptance testing

Integrated testing

Integrated testing is a systematic technique for constructing tests to uncover errors associated with interface. Objective is to take unit tested modules and build a program structure that has been dictated by design

Acceptance testing

Acceptance testing involves planning an execution of a functional test, performance test and stress test to verify that the implemented system satisfies the requirement. The acceptance testing is the final stage of the user the various possibilities of the data are entered and the results are tested.

Validation testing

Software validation is achieved through a series of test that demonstrates the conformity and requirements. Thus the proposed system under consideration has to be tested by validation and found to be working satisfactorily. For example in customer enters phone number field should contain number otherwise it produces an error message similarly in all the forms the fields are validated.

Testing results

All the tests should be traceable to customer requirements the focus of testing will shift progressively from programs Exhaustive testing is not possible To be more effective testing should be which has probability of finding errors

The following are the attributes of good test

1. A good test has a probability of finding a errors
2. A good test should be "best of breeds"
3. A good test to neither simple nor too complex
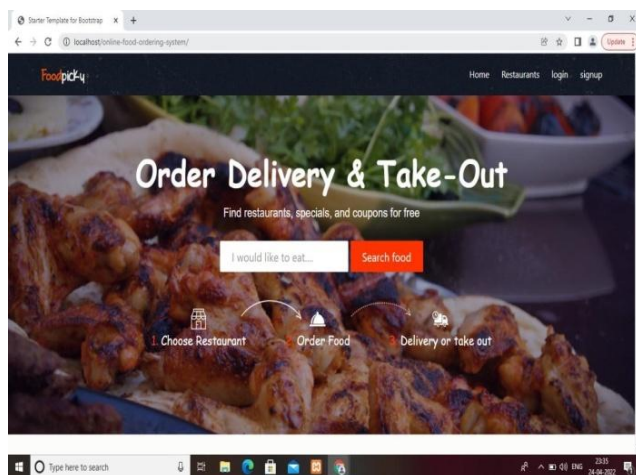
SYSTEM IMPLEMENTATION:

System Implementation is the stage in the project where the theoretical design is turned into a working system. The most crucial stage is achieving a successful new system and giving a user confidence in that the new system will work efficiently and effectively in the implementation stage.
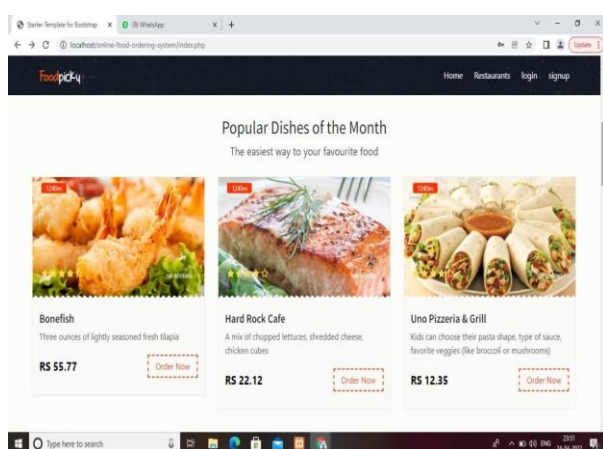
The stage consist of

1. Testing a developed program with sample data.

2. Detection and correction of error.

3. Creating whether the system meets a user requirements.

4. Making necessary changes as desired by users.

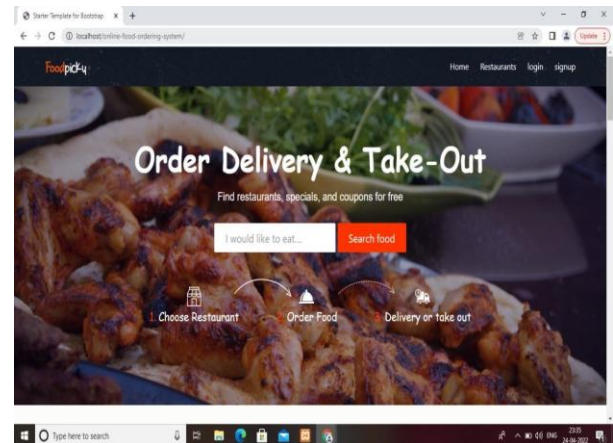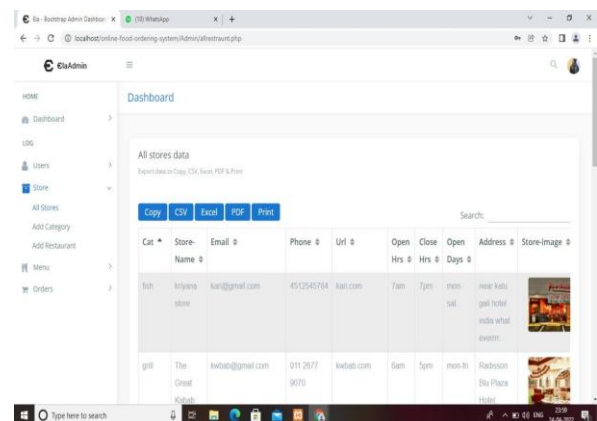5. Training user personal.

V. EXPERIMENTAL RESULTS

Login page:

Customer order page:

Home page:

Admin all stores page:

VI CONCLUSION

The "Food Ordering System" has been developed to satisfy all proposed requirements. The process is maintained more simple and easy. The system is highly scalable and user friendly. Almost all the system objectives have been met. The system has been tested under all criteria. The system minimizes the problem arising in the existing manual system and it eliminates the human errors to zero level. All phases of development were conceived using methodologies. The software

executes successfully by fulfilling the objectives of the project. Further extensions to this system can be made required with minor modifications.

FUTURE ENHANCEMENT

The online food ordering system is one of the most profitable marketing strategies for restaurant businesses. Online food ordering platforms also prevents missed orders due to busy phone lines or a lack of resources to monitor the phone. An online food ordering system generally has two components – a website or app that allows customers to view the menu and place an order, and an admin interface that enables the restaurant to receive and fulfil customer orders. We can improve the efficiency of the system, thus overcome the drawbacks of steel, through this they cannot require so efficient person to handle and calculate the things. This system automatically calculates all the bills and issued the notifications.

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