

A
MINI PROJECT
REPORT ON

FLAVOURY PLACE - RESTAURANT MANAGEMENT SYSTEM
Report of Performing White and Black Box
Testing

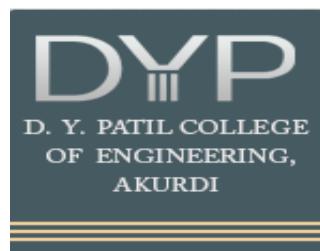
SUBMITTED TO THE SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE.

FOR
LAB PRACTICE II
Software Testing and Quality Assurance

BACHELOR OF ENGINEERING (COMPUTER ENGINEERING)

SUBMITTED BY

Name: Prajakta Mane	Exam Seat No: T150084305
Name: Trupti Waphare	Exam Seat No:T150084348
Name: Asmita Borude	Exam Seat No:T150084237



**DEPARTMENT OF COMPUTER ENGINEERING
D.Y.PATIL COLLEGE OF ENGINEERING AKURDI, PUNE-44.**

SAVITRIBAI PHULE PUNE UNIVERSITY, 2021-22 SEM-I

INDEX

Sr. No.	Topic	Page No.
1.	Abstract	3
2.	Introduction <ul style="list-style-type: none">● Problem Statement● Objective and Scope● Motivation of Project	3
3.	Outcomes	4
4.	Software/Hardware Requirements <ul style="list-style-type: none">● Software Requirement Specifications● Hardware Requirement Specification	5
5.	Implementation	6
6.	Results <ul style="list-style-type: none">● Working Module Screenshot● Testing reports● Code	11
7.	Advantages and challenges	14
8.	Applications	15
9.	Conclusion and Future Scope	15
10.	References	15

1. ABSTRACT

Restaurant management system is the system for managing the restaurant business. The main point of developing this system is to help restaurant administrators manage the restaurant business and help customers for online reservation of tables and see restaurant menu and history of restaurant online.

The project is developed because many restaurants have a lot of difficulty in managing the business such as customer ordering and reservation tables. By using a manual menu system it is difficult to keep the correct menu record and also table reservations ,leading to loss of customer information.

So, an online restaurant management system will develop to help the restaurant administrator to manage restaurant management and for customers to make their online reservation table. Other than that, this project is to upgrade the manual system and make the business easy to access and systematic. Also publicity of the restaurant will be done .

1. INTRODUCTION

- Problem Statement:**

Nowadays, many restaurants manage their business by manual, especially customer reservation menu tracking. Today, the restaurant waiter takes the customer's order using a manual system using paper. This is a problem for restaurant waiters as the probability is lost and duplicates customer information. Additionally, it would affect the reputation of the restaurant in the management of ordering.

Furthermore, the restaurant needs management in the section menu. This is important to the restaurant to manage the menu. Besides this section is for the customer viewer the menu that the restaurant prepared and made their order.

As a result, the current system (manual system) is not effective and efficient to use anymore because the current system cannot save, manage and monitor the restaurant menu information, customer reservation information and generate reports well.

- **Objectives and Scope**

Based on the problems stated above, the objectives of the project are:

1. To develop an online reservation system in restaurants.
2. To develop an interface for an online restaurant management system.
3. To provide online menu information for customers.
4. To generate bills for restaurants.
5. To provide admin control over the entire restaurant.

- **Motivation of Project**

There are many computerised restaurant management systems available but for each system there exist disadvantages or missing features. The most common type of restaurant management system contains a static order entry computer system usually in the shape of a desktop computer with a touchscreen. Typically this common approach is adequate to the restaurant's requirements but still requires handwritten orders to be relayed to the order entry computer system. A table comparing features of existing solutions will be presented in Section 2.3. A slightly different approach was implemented in a restaurant in Nuremberg, Germany, named Baggers. The restaurant utilises a roller coaster approach to serving the food and an order entry system fully operated by the customer. As reviewed by the BBC, there is no need for any waiters as the customers use touch-screen monitors to browse the menu. This new invention can save on operating costs, but the initial injection of cash required is substantial as every table requires the necessary hardware.

3. OUTCOMES

The outcome of this project is building an electronic restaurant management system using all of the skills and techniques from the field ensuring that no common development mistakes are reproduced. Project management is critical to all software engineering projects and keeping to a project plan will be of similar importance. One of the main objective of any business is to maximize profit by increasing efficiency and decreasing overheads without compromising customer satisfaction. Currently, many restaurants use a paper-based system to communicate between the restaurant and kitchen which can be shown to be one of the least efficient approaches. Even though this approach is implemented in successful profitable restaurants, there are several problems which could be seen as reducing the restaurant's efficiency:

1. Miscommunication caused by handwriting.
2. Unmanageable order logging.
3. Inefficient restaurant-kitchen communication.
4. Difficult order tracking and time management.
5. Difficult stock management.
6. Limited statistical output. By introducing an online restaurant management system these problems can be avoided or improved leading to an increase in profits

4. SOFTWARE /HARDWARE REQUIREMENTS

- **Software Requirement Specifications:-**

Tools used For Testing :Selenium WebDriver

Selenium WebDriver is a web framework that permits you to execute cross-browser tests. This tool is used for automating web-based application testing to verify that it performs expectedly.

Selenium WebDriver allows you to choose a programming language to create test scripts. As discussed earlier, it is an advancement over Selenium RC to overcome a few limitations. Selenium WebDriver is not capable of handling window components, but this drawback can be overcome by using tools like Sikuli, Auto IT, etc.

Test case Coverage:11 Test cases

- **Hardware Requirement Specification**

Operating System:

Product supports all OS and their versions For example:

Windows OS,Mac OS,Linux mint,Ubuntu etc.

Android Devices:

Product is responsive and supports all android devices

Browser:

Product runs and supports all browser and their versions

For example:

Google chrome,Firefox etc.

Memory Requirement:

Memory, 2 GB minimum, 4 GB recommended

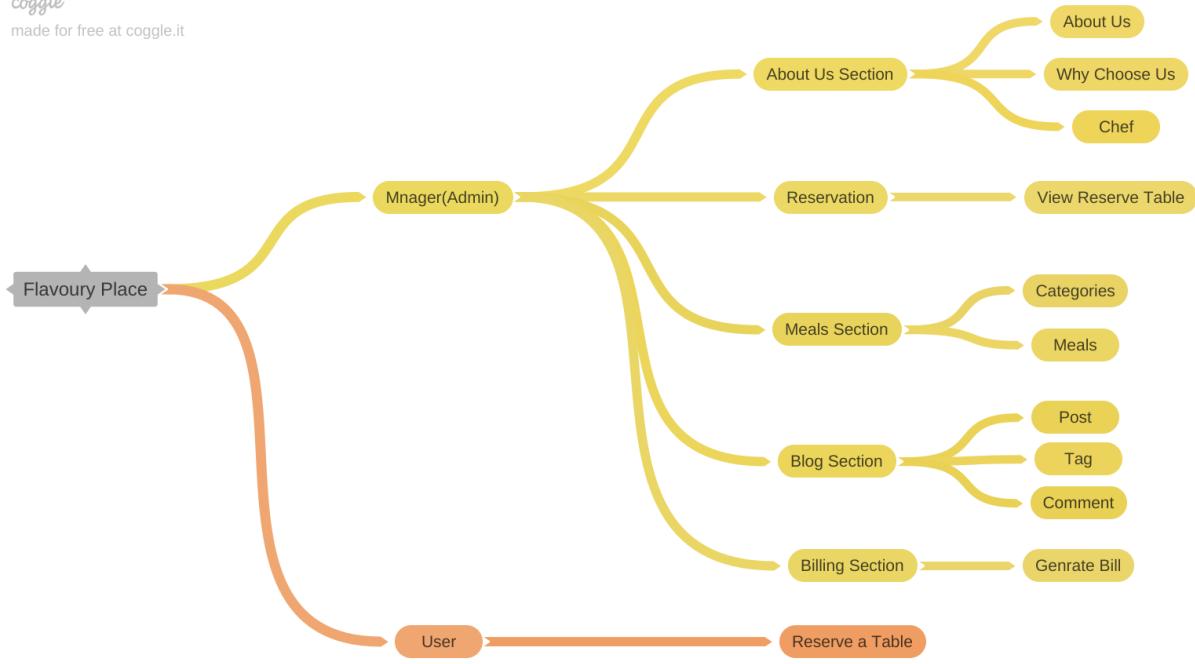
Processor:

No gpu required and minimal processor works

Design (UML diagrams, System Architecture, Mathematical Modeling)

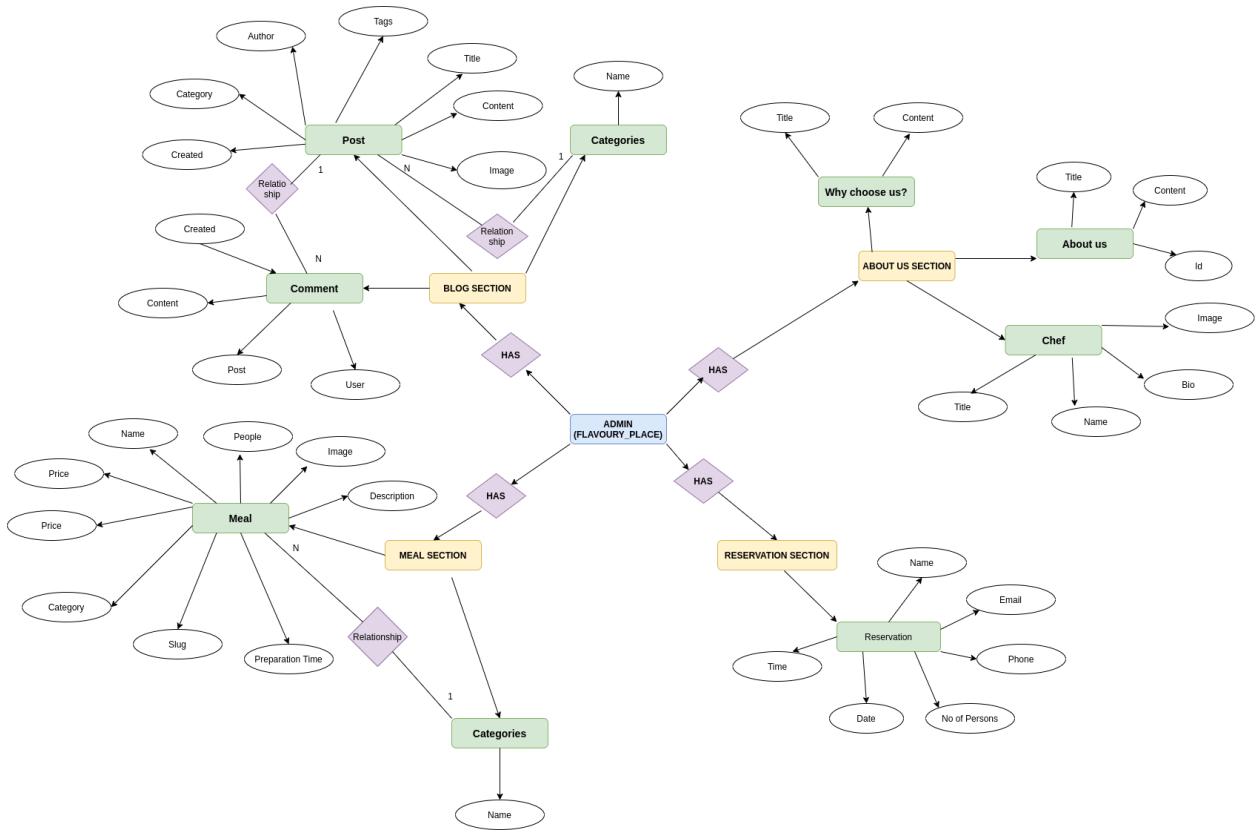
- **OVERVIEW OF ENTIRE PROJECT**

Link : [Flow Chart](#)



- **ER DIAGRAM:**

Link : [ER DIAGRAM](#)



5. IMPLEMENTATION

Test Plan:-

Sr.	Requirements	Functional Requirements	Test Scenarios	Testing Strategies
-----	--------------	-------------------------	----------------	--------------------

1	Home Page Opens	Insures Home page opens	If home URL is opened the home page is only rendered	Unit Testing (White Box Testing)
2	AboutUs Page Opens	Insures About Us page opens	If About us URL is opened then about us page is only rendered asserted by page title matches to expected value	Unit Testing (White Box Testing)
3	ContactUs Page Opens	Insures ContactUs page opens	If Contact us URL is opened then contact us page is only rendered asserted by page title matches to expected value	Unit Testing (White Box Testing)
4	Contact Form	Insure the data entered by user is saved in backend	If valid details are filled then after submit exact values should go to database	Integration Testing (Black Box Testing)
5	Success Of Contact Form	Insure form is filled successfully	If details entered are valid then redirect to this page otherwise show proper error	Unit Testing (White Box Testing)
6	Manager	Insure Manager page Opens	If Manager URL is opened then manager page is only rendered asserted by page title matches to expected value	Unit Testing (White Box Testing)
7	Order	Insures the order bill page is rendered	If Order us URL is opened then order page is only rendered asserted by page title matches to expected value	Unit Testing (White Box Testing)

8	Meal	To render list of meal on meal page	Valid user logins and if update previous ratings then updated ratings are saved in the database	Integration Testing (Black Box Testing)
9	Reservation Page	To open the book seat page	If reservation URL is opened then reservation page is only rendered asserted by page title matches to expected value	Unit Testing (White Box Testing)
10	Reservation Form	Insure the data entered by user is send to backend	If valid details are filled then after submit exact values should go to database	Integration Testing (Black Box Testing)
11	Reservation Success	Insure the reservation is done successfully	If details entered are valid then redirect to this page otherwise show proper error	Unit Testing (White Box Testing)

TESTING STRATEGY:-

Unit Test:-Unit testing is white box testing. Testing is performed by Developer

Module:- About Us Page Opens

Unit:- Rendering

Test no.	Test Case	Testing Data	Expected Result	Actual Result
1	testabout	about view	title should match	title matches

Module:- Contact Page

Unit:- Rendering

Test no	Test Case	Testing Data	Expected Result	Actual Result

1	testcontact	Contact view	title should match when contact page url entered	Same as Expected
2	testsucces contact	Success view	Return true value if title matches	Same as Expected

Module:-Home

Unit:-Rendering

Test no	Test Case	Testing Data	Expected Result	Actual Result
1	testhome	Explore page URL	Return true value if title matches	Same as Expected
2	testmanager	Manager page URL	Return true value if title matches	Same as Expected
3	testorder	Order page URL	Return true value if title matches	Same as Expected

Module:-Meals

Unit:-Rendering

Test no	Test Case	Testing Data	Expected result	Actual Result

1	testmeal	All meal list	For every meal, the page should open and render meal in it	Pages open and title matches for every url
---	----------	---------------	------------------------------------------------------------	--------------------------------------------

Module:- Reservation

Unit:- Rendering

Test no	Test Case	Testing Data	Expected result	Actual Result
1	testreserve	Test page URL	Return true value if title matches	Same as Expected
2	testsucces	Success page URL	Return true value if title matches	Same as Expected

Integration Test:- Integration testing is Black box testing.

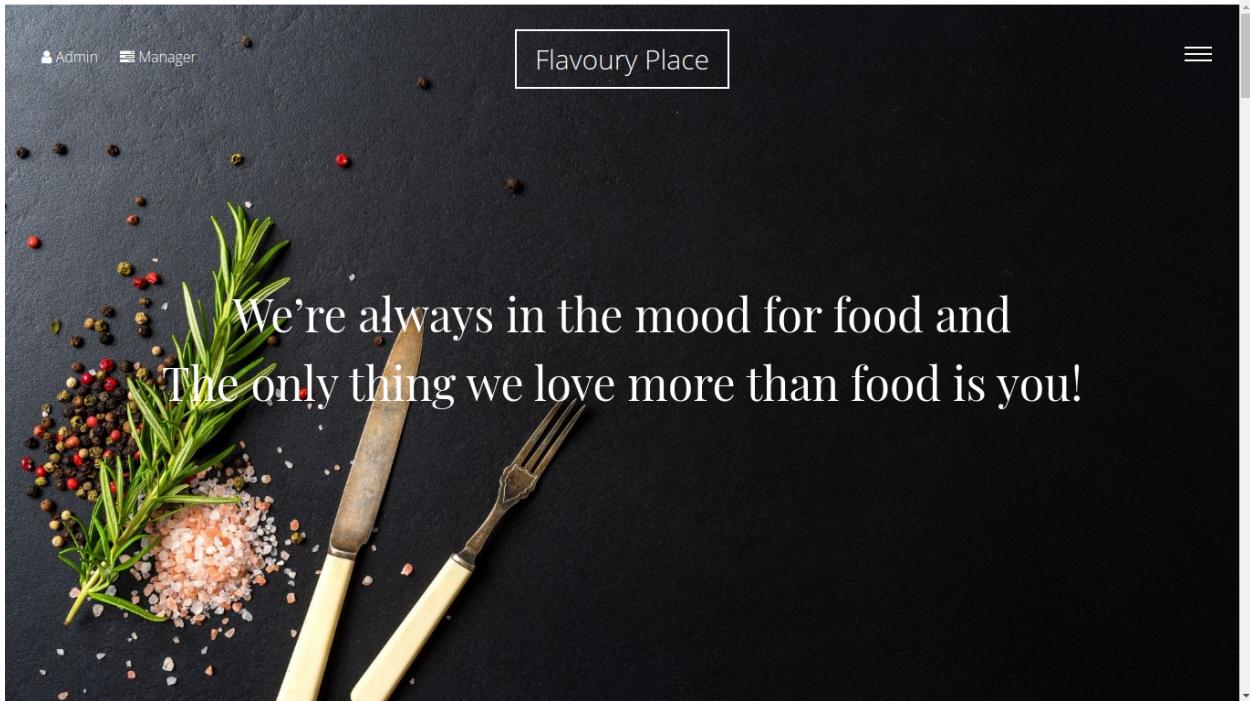
Testing performed by Tester.

Test no	Test Case	Precondition	Testing Data	Expected Result	Actual Result
1	testcontact form	Nothing	subject,email,message	If valid email then data is send to backend and validated	Redirected to success page if done else error thrown

2	testreservationform	Nothing	name,email, phone, no of person, date, time	If valid data is entered then data is send to backend and validated	Redirected to success page if done else error thrown
---	---------------------	---------	---------------------------------------------	---------------------------------------------------------------------	------------------------------------------------------

5. Results

- Working module screenshot:



Our Specialties

Discover the restaurant's specialities. It ranges from sweet to umami flavours.



Borscht

RUSSIA/UKRANE This soup originated in the Ukraine and is popular throughout Eastern and Central Europe. ...

\$100.00



Kimchi

SOUTH KOREA If you're keen on fermented vegetables and spicy food, this is the dish ...

\$200.00



Souvlaki

GREECE This Greek fast food is cheap and ...



Biryani

PAKISTAN This mixed dish with rice, meat ...



Pasta Carbonara

ITALY This dish originated in Rome and is a pasta cooked with cream sauce, eggs, ...

\$30.00



Paneer Butter Masala

INDIA Paneer is a type of ...

Menu List with Price

BREAKFAST BRUNCH DINNER

Turkey meatloaf

\$50.00

Heat oven to 180C/160C fan/gas 4. Heat the oil in a large frying pan and cook the onion for 8-10 ...

Organic Tomato Salad

\$5.00

Hot summer demand cool and creamy salads. Asian flavours add a twist to traditional caprese salad.

Pasta Carbonara

\$30.00

ITALY This dish originated in Rome and is a pasta cooked with cream sauce, eggs, pancetta (a sliced bacon) and ...

Events & News

Read Articles related to nutritious foods, tips on healthy lifestyle, diet plans, weight loss, weight gain, skin glow, beauty care tips and more.



New Way For Cooking Food

 JAN. 3, 2019, 9:44 P.M.

Are you tired of preparing your meals the same way ...

[READ MORE](#)



Cooking in 2020

 JAN. 3, 2019, 10:45 P.M.

As a new decade dawns, we're serving up and celebrating ...

[READ MORE](#)



Restaurant Food

 JAN. 7, 2019, 11:41 A.M.

Eating out can be a very pleasurable experience. Having dinner ...

Why Choose Us

Every dish at Leaky Cauldron is made onsite from scratch. This includes all the spring rolls, curry puffs, roti and desserts. By creating everything from the start, we have 100% control over the ingredients used, the quality and the freshness of the dish. You will taste the difference.



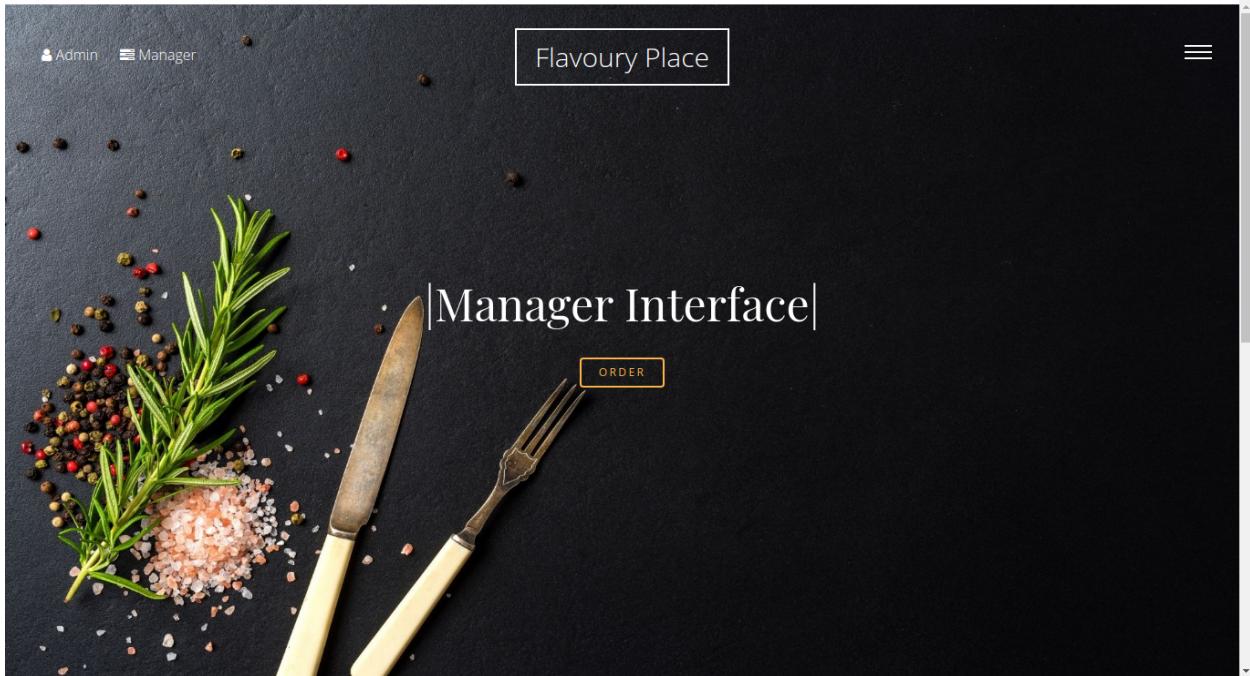
Quality Cuisine

Our food outstands in colour, flavour, texture, size, shape and appearance. A perfect bite of food is what we aim for.

Fresh Food

ALWAYS FRIENDLY & PROFESSIONAL STAFF

Divine Hospitality



FLAVOURY PLACE

Flavoury Place
101 E. Chapman Ave
Orange, CA 92866
(800) 555-1234

Customer Name
Have a Good Day

Date	2020-12-12
Amount Due	\$ 600.00

Item	Description	Rate	Quantity	Price
Chai	Breakfast	\$150.00	4	\$600.00

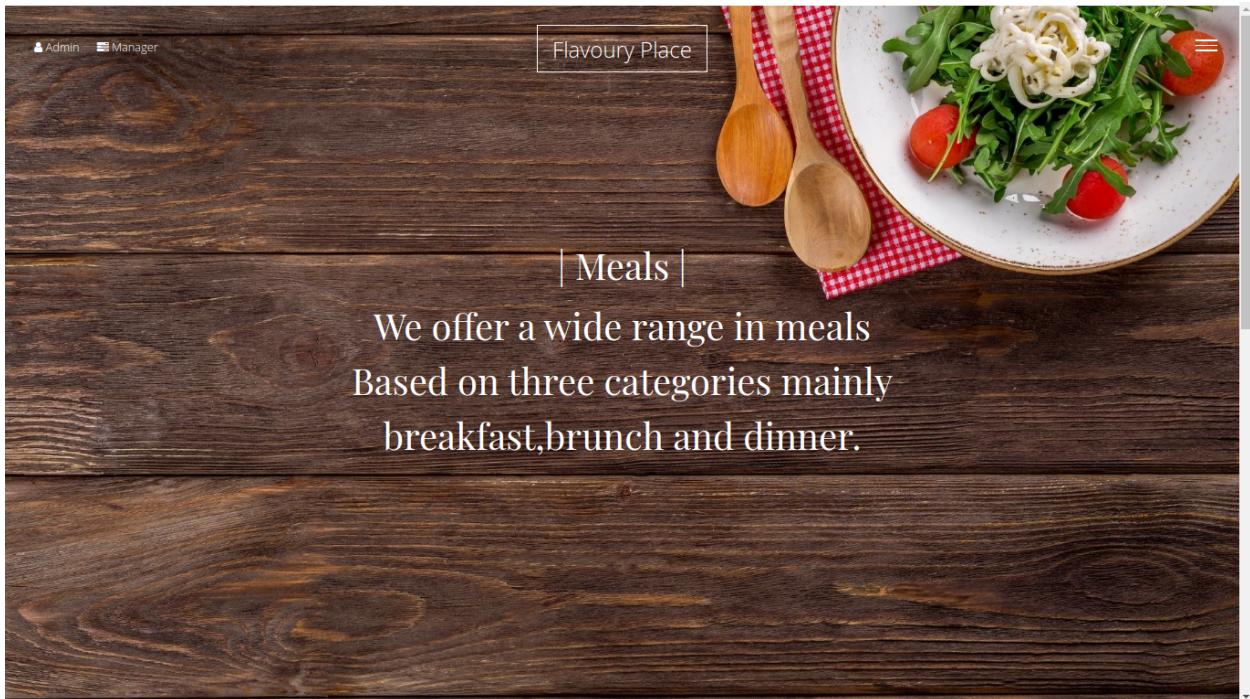
+

Total	\$600.00
Amount Paid	\$0.00
Balance Due	\$600.00

SEE YOU AGAIN

It was our great pleasure to serve you. We are looking forward to your return visit to Flavoury Place Restaurant. We would certainly appreciate any feedback or suggestions you can offer on the service and cuisine, as we continue to strive to offer the best possible experience to all of our guests.

Print Bill



A product page for a roasted turkey. At the top, it features the same header elements as the home page: "Admin" and "Manager" on the left, "Flavoury Place" in the center, and a menu icon on the right. The main visual is a large, golden-brown roasted turkey on a white platter, garnished with fresh fruit like apples and pears. Below the image, the product name "Glazed And Lacquered Roast Turkey" is displayed in a bold, black font. A detailed description follows: "A little soy sauce in the glaze ensures the burnished mahogany skin that holiday memories are made of. But it's not just for looks, this brined and buttered turkey is season's inside and out." Below the description are four small lines of text: "For 4 People", "Preparation Time : 60 Minutes", and "Price : 100.00\$".

Reservation Form

Name

Email

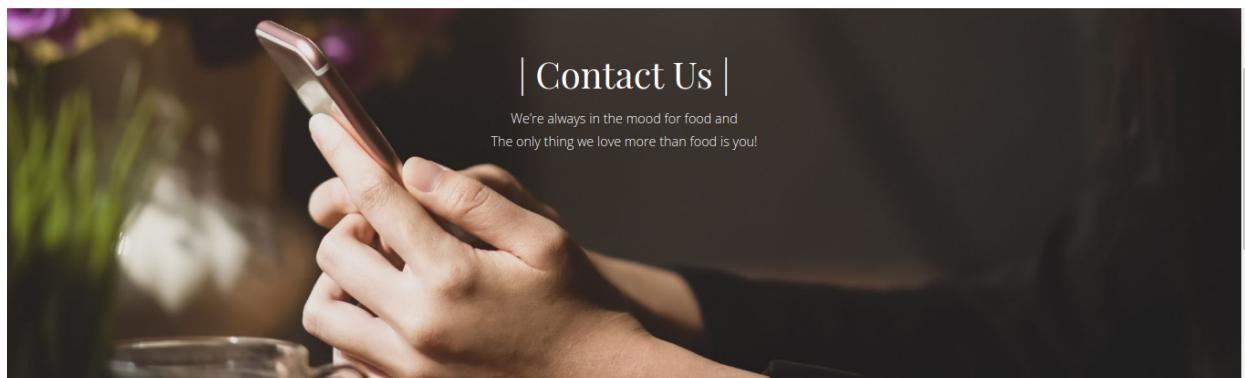
Phone

Number of persons

Date

Time

RESERVE A TABLE



| Contact Us |

We're always in the mood for food and
The only thing we love more than food is you!

Contact Form

Subject

From email



Cooking in 2020

JAN. 3, 2019, 10:45 P.M.

As a new decade dawns, we're serving up

Admin Manager

Flavoury Place



As a new decade dawns, we're serving up and celebrating the biggest home-cooking trends from the most enthusiastic cooks we know: our community. We crunched the data from 1.2 billion annual Allrecipes.com visits and 2.5 billion annual page views. Then we dug even further, surveying Allrecipes cooks about what's in their carts and fridges, on their stovetops and tables, and on their minds. We learned a lot about the recipes and products they love, the fresh ways they explore food, and the new

Type a keyword and hit enter

Categories

[Cooking](#)

[Food](#)

Tag Cloud

Comments

Leave a comment

Content

Content

| About The Restaurant |



WARM ATMOSPHERE

Enjoyable and comfortable atmosphere in the heart of Maharashtra. Flavoury Place offers 50 seating places, surrounding a big fireplace that will make your dining exquisite and enjoyable. Carefully selected music and smart interior design will make you feel like home. Flavoury Place home indoor includes a vine cellar. You can taste any vine from our offering in our wine tasting bar. Flavoury Place can host large groups too, so if you need more seats for your feast simply send us an email, or call us by phone.

Admin Manager

Flavoury Place



Restaurants Chef

Meet our Top chef of whom we are proud of. Get to know them their experience and expertise. We believe in them hope you to from now.



KEITH SIMONS

Chef Cook

Meet Keith Simons, chef cook in our restaurant. Keith has 10 years of experience in the restaurant business. His favorite food is veg stake.



ROB WOODSTONE

Deserts expert

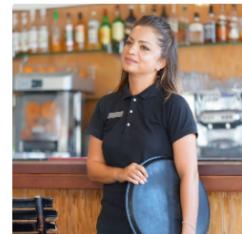
Rob Woodstone is our expert on deserts. Philip has 12 years of experience and enjoys creating new deserts. Favorite food: Sacher cake



STEPH GOLD

Chef Cook

Steph Gold is our most experienced chef. He is working from when he was 10 years old as a helper now as a chef .

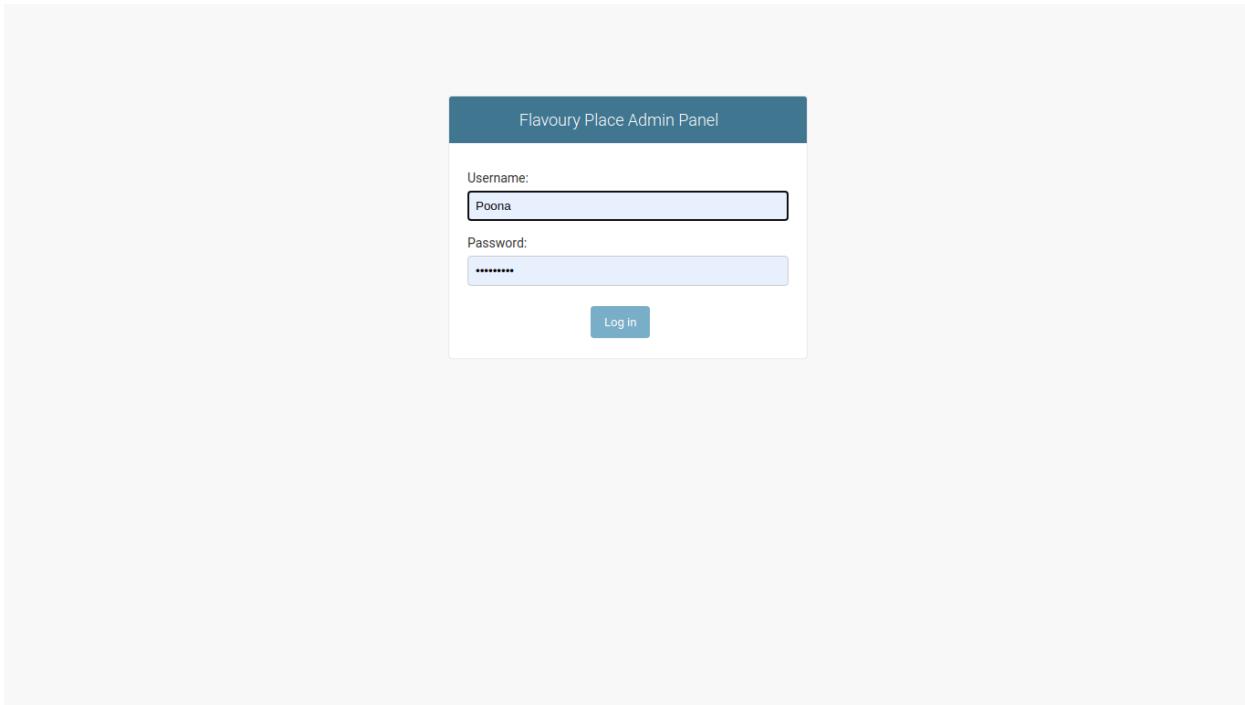


ASHLEY COOPER

Head waiter

Ashley Cooper is head waiter in Royal Plate and an experienced wine taster. Her favorite vine is Chardonnay.

Admin Section Login by username and Password :



Entire website control :

A screenshot of the Flavoury Place Admin Panel dashboard. The top navigation bar shows 'WELCOME PRAJAKTA' and links for 'VIEW SITE / CHANGE PASSWORD / LOG OUT'. The dashboard is divided into several sections: 'ABOUTUS' (About us, Chef, Why choose us), 'AUTHENTICATION AND AUTHORIZATION' (Groups, Users), 'BLOG' (Catogires, Comments, Posts), 'DJANGO SUMMERNOTE' (Attachments), and 'MEALS' (Categories, Meals). On the right side, there is a sidebar titled 'Recent actions' which lists various posts and actions taken by the user, such as 'Restaurant Food post', 'New Way For Cooking Food post', and 'Divine Hospitality Why choose us'.

Demo of adding a chef same for other :

Flavoury Place Admin Panel

WELCOME **PRAJAKTA** [VIEW SITE / CHANGE PASSWORD / LOG OUT](#)

[Home](#) > [Aboutus](#) > [Chef](#)

Select chef to change

[ADD CHEF](#) +

Action: 0 of 4 selected

- CHEF**
- ASHLEY COOPER
- STEPH GOLD
- ROB WOODSTONE
- KEITH SIMONS

4 chef

127.0.0.1:8000/admin/aboutus/chef/add/

Flavoury Place Admin Panel

WELCOME **PRAJAKTA** [VIEW SITE / CHANGE PASSWORD / LOG OUT](#)

[Home](#) > [Aboutus](#) > [Chef](#) > Add chef

Add chef

Name:

Title:

Bio:

Image:

No file chosen

[Save and add another](#)

[Save and continue editing](#)

SAVE

Deleting a Chef :

Flavoury Place Admin Panel

WELCOME **PRAJAKTA** VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Aboutus > Chef

Select chef to change

Action: Go 1 of 4 selected

CHEF
<input checked="" type="checkbox"/> ASHLEY COOPER
<input type="checkbox"/> STEPH GOLD
<input type="checkbox"/> ROB WOODSTONE
<input type="checkbox"/> KEITH SIMONS

4 chef

Updating Chef :

Flavoury Place Admin Panel

WELCOME **PRAJAKTA** VIEW SITE / CHANGE PASSWORD / LOG OUT

Home > Aboutus > Chef > ROB WOODSTONE

Change chef

HISTORY

Name:

Title:

Bio: Rob Woodstone is our expert on deserts. Philip has 12 years of experience and enjoys creating new deserts. Favorite food: Sacher cake

Image: Currently: chef/person_2.jpg
Change: No file chosen

- **Test case Coverage:**

79%

Module :	statements	missing	excluded	coverage
reservation/views.py	15	9	0	40%
reservation/urls.py	4	0	0	100%
reservation/tests.py	31	0	0	100%
reservation/models.py	11	1	0	91%
reservation/migrations/0003_auto_20201118_1131.py	4	0	0	100%
reservation/migrations/0002_auto_20201118_1130.py	4	0	0	100%
reservation/migrations/0001_initial.py	5	0	0	100%
reservation/migrations/_init__.py	0	0	0	100%
reservation/forms.py	6	0	0	100%
reservation/apps.py	3	3	0	0%
reservation/admin.py	3	0	0	100%
reservation/_init__.py	0	0	0	100%

- **Code :**

Link to code :[Code](#)

7. Advantages and Challenges

Advantages:

- Decreases workload.
- Save Time.
- Customers can easily order food.
- Can easily Generate bills.
- Easy to maintain menu of restaurant
- Chefs can be updated easily.
- Blog can be easily maintained on a restaurant website.

Challenges:

- It was difficult to get the right dataset to make the project.
- It was challenging to figure out which ML algorithm to use and also how to train the model in less gpu.
- It was also challenging to make a UI/UX interface which is comfortable for users.
- Deciding the design of the app was a brainstorming task.

8. Applications

This project is helping to attain new skills as well as develop existing skills. The skills attained have been both technical and individual with the main individual skill being project management

which required good timekeeping and management of the workload. Some technical skills that have been developed include:

- Advanced coding using the Java Swing interface.
- Relational database schema design and trigger coding.
- Advanced coding using Java threads.

9. Conclusion and future scope

Conclusion:

The success of every major restaurant business chain lies in its operations and management. These tools will provide you with an opportunity to make your restaurant and life much easier. Not only will they help your restaurant expand, but will also make it more efficient at a lower cost.

Investing in cutting-edge technology like installing a highly efficient POS software would help your restaurant immensely by delighting connoisseurs and adding up to their dining experience. Here we are enlisting a few more benefits of using POS software for a restaurant business.

Future scope:

The improvements may include:

- Support food order delivery and driver tracking.
- Extension of pricing methods for individual or multiple recipes.
- Advanced inventory control with material storage and expiry information
- Managing customer loyalty membership and discount vouchers.

References

- https://studentnet.cs.manchester.ac.uk/resources/library/thesis_abstracts/MSc13/FullText/Tan-ChinLoong-fulltext.pdf

