MESS FOOD MAINTENANCE SYSTEM

A MINI PROJECT REPORT

Submitted by

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In

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Under the Guidance of
PROF. R. N. YADWAD

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SDM COLLEGE OF ENGINEERING AND TECHNOLOGY,
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SDM COLLEGE OF ENGINEERING AND TECHNOLOGY,

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(Autonomous Institution Affiliated to VTU, Belagavi)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the project work entitled "MESS FOOD MAINTENANCE SYSTEM" is an original work carried out by Mr. Rahul Sharannavar, Mr Rakshit Dixit, Mr Saidheeraj S Balam and Mr Shrikrishna P Bhat in partial fulfillment for the award of degree of Bachelor of Engineering in Computer Science and Engineering of S.D.M College of Engineering and Technology, Dharwad-580002, during the year 2017-18. The project report has been approved as it satisfies the academic requirements in respect of mini project work prescribed for Bachelor of Engineering Degree.

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DECLARATION

We, **Mr. Rahul Sharannavar, Mr Rakshit Dixit, Mr Saidheeraj S Balam and Mr Shrikrishna P Bhat** students of Sixth Semester B.E., **COMPUTER SCIENCE AND ENGINEERING**, hereby declare that the mini project titled "**MESS FOOD MAINTENANCE SYSTEM**" has been carried out by us and submitted in partial fulfilment for the award of degree of Bachelor of Engineering in COMPUTER SCIENCE AND ENGINEERING of the Visveshvarayya Technological University, Belagavi during the year **2017- 2018.**

We do declare that this work is not carried out by any other students for Mini Project for the award of degree of Bachelor of Engineering in any other branch or any other University. Further we declare that the content of the dissertation has not been submitted previously by anybody for the award of any degree.

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ABSTRACT

In some colleges, the Mess Management and cost calculations are done manually till date. It is very time consuming & increases the chances of calculation mistakes.

Thus, there arises a need to create software that will make the Mess Management a regulated system. This software will be useful to any school /college hostel or in general to any institute maintaining a mess.

This system is designed for better interaction between Management and Consumers. This software helps the mess to structuralize the activities and maintain data transparency where needed and properly store data for regular operations and future analysis.

For the past few years number of educational institutions are increasing rapidly and thereby the students are also increasing which requires a mess facility to provide food. Thereby it results in stress to the person who maintains it. Therefore there comes the need of making it computerized, providing a proper GUI.

Identification of drawbacks of existing system is taken care and this system is developed.

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LIST OF FIGURES

ACRONYMS

PHP	Hypertext Pre-Processor
SQL	Simple Query Language
HTML	Hyper Text Markup Language
CSS	Cascading Style Sheets
JS	Java Script
DBMS	Database Management System
SDK	Software Development Kit
XAMPP	Cross-Platform (X), Apache (A), MySQL (M), PHP (P) and Perl (P)
HTTP	Hyper Text Transfer Protocol
JSON	JavaScript Object Notation
WWW	World Wide Web
PDO	PHP Data Objects
DOM	Document Object Model

CHAPTER 1

INTRODUCTION

Now a days everything is getting computerized and automated, computers with the help of internet can do a lot of things that saves a lot of human effort and time, as engineering colleges are technical they have made sure that they are at par with evolving technology, to help the colleges to keep up with the technology, here is a web based project that intends to empower the technology and make mess based calculations automated. This project focuses on providing the interface to the mess administrator and students and fills the gap between them and provides a facility where an administrator can enter menu and students can witness it even from far away without travelling to mess and choose for which meals they want to come and thereby save the cost for the mess (college) by reduction of the wastage of materials and prepare the meal accordingly.

Students are pre-registered by the admin and their count is known and meal is prepared at the appropriate time thereby reducing wastage.

1.1 Why this Domain?

Recent trends show huge development of web technologies. This is due to:

- Evolution in needs of people.
- People have less patience and wants everything at the hands and demands evolving technology.
- People have become smart and lazy which is increasing day by day and demand new innovations.

Keeping all the above aspects in mind, we have opted this topic to minimize the time and complexity in maintaining data and also providing a proper interface to make use of this.

1.2 Problem Statement

Given the number of students present in the hostel before a meal preparation starts and the current day's status (date, season, special events), estimate the amount of raw food materials required for cooking for that very meal. The student must also be able to access the amount of his every meal from the beginning at the end of each month.

1.3 Literature Survey

The mess management system which exists presently has a lot of physical work to be done physically calculating stock, calculating student count, adding menu deleting it manually which causes error. In this case there can be lot of errors in stock management which causes wastage of food and since the increase of population and inflation food prices are soared up to sky and there is scarcity of food. Many people are depriving of it. Therefore this system is provided to minimize wastage of food by appropriating stock and count of students.

1.4 Objectives

The main objective of this system is to replace the manually done existing technology to a new system where data is automated.

- Design web pages for **admin** and **student.**
- Providing interface to **admin.**
- Providing provision to add, view and delete MENU by **admin**.
- Providing provision to add, view and delete STOCK by **admin.**
- Providing provision to add, view and delete STUDENT by **admin.**
- Providing provision to view responses made by student by **admin.**
- Providing interface to **student**
- Providing provision to only view MENU by **student**.
- Providing provision to give response by **student** to admin.

1.5 Methodology

1.5.1 Novelty/Innovation of the device:

The project initiative was taken as an advanced approach to mix the essence of technology in manually done calculations to increase the efficiency of the calculations. There exists no efficient solution for the problem. This project has the system of calculations automatically.

1.5.2 Deliverables (Design/Protocol/Prototype):

Although the system appears to be an existing one, slight modification have been done as per the advancement in many of the component. In terms of simplicity, many new systems like adding, deleting, viewing menu or responses are very easy. A good and simple GUI is provided for users to reduce complexity and make things abstract.

1.5.3 Number of trial runs:

This project has taken more trial run. Because, this will be deployed with advanced control systems like android app, a re-designed website with data analytics and data mining concepts with cryptography.

1.5.4 Cost effectiveness:

This project costs very less since it’s mainly a software oriented and just needs a good PC with minimum requirements.

CHAPTER 2

Web Design and Principles

This chapter explains about Website Page design dynamics, its principles.

2.1 Website Page Dynamics

.Website page dynamics are very simple. A simple form is created for a particular option and it is redirected to respective webpage by using proper tags

2.2 Web Page Layout

A web page contains 6 sections mainly.

1) Header
2) Sider-bar left
3) Content
4) Side-bar right
5) Footer

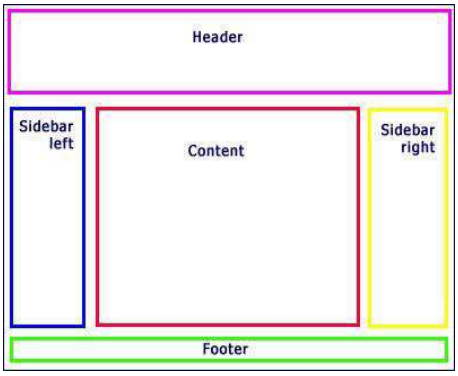


Fig: 2.1 - Web page Layout

2.2.1 Header

A website header sits at the top of each page and serves a few very important purposes. This does more than provide a place for your logo; it is part of a consistent user experience that all good websites share. The design of a header may differ from site to site, but the core features that determine how a site is navigated and experienced remains the same.

This section is usually consistent across all of the pages on the website, however, some designs give the home page a slightly different header appearance in order to draw attention to featured areas of the site.

Overall, a good header makes your website easier to navigate, establishes your brand, and creates a consistent browsing experience throughout your website.

2.2.2 Sidebar-left

While the left sidebar could be used for any number of purposes, there are two uses that seem to be the most common: navigation and a place to show more content.

In the last few years, the navigation menu of websites has changed. What used to be a fixed piece of a website, destined to stay at the top of the page, is now a more functional part of a good website. Menus now will flow with a page, both at the top of the screen and along the left hand side within the sidebar. When you find a menu in the left sidebar, it may be in two forms:

1. **Fixed Sidebar Menu:** The fixed menu in the sidebar is similar to a fixed menu in your header, but now it will follow you down the page on your left hand side. It's that simple. This is a valuable resource when you have a handful of pages that you would like website visitors to see. As the user's eye is directed to the left-hand side of the screen they should be more inclined to keep clicking as the menu is easily accessible.
2. **Hamburger/Hidden Menu:** Depending on how you refer to it, a hidden or "hamburger" menu has become a popular choice for the left side of the screen. In order to clear out any clutter on the page, hiding the menu can help website visitors focus on the page content. When users want to move on from the page, they can click a simple button either near the top of the screen or in the form of a tab on the side.

There are a number of websites today with blogs that exist separately as their own content hubs. This separation often creates a need for quicker content access, and the left sidebar is often the best place to put the most recent and relevant pieces of content.

2.2.3 Content

Web content is the textual, visual, or aural content that is encountered as part of the user experience on websites. It may include—among other things—text, images, sounds, videos, and animations.

2.2.4 Sidebar-right

Seen as the more "traditional" choice, the right sidebar has a lot of different uses. But, like the left sidebar, the right sidebar usually displays one of two things: a social sidebar or additional company information. Social Sidebar

Not to be confused with a social sharing sidebar, which you could find in any number of places on a page, a social sidebar will show recent updates from social platforms while also giving website visitors the chance to follow your company on those different platforms. Adding this piece to your sidebar opens up the opportunity for more people to see what you share.

This can be a big deal, especially if the majority of website visitors are bypassing a newsletter sign-up to follow your social profiles. In some cases, they will receive similar content to what is in your newsletter, which makes the missed chance at a newsletter sign-up have less of an impact.

2.2.5 Footer

. Like a document footer, a Web page footer contains information listed at the bottom of the page. The footer is also treated as its own section of the Web page, separate from the header, content and sidebars. The footer is coded in either CSS (Cascading Style Sheets) or HTML (Hypertext Markup Language).

2.3 Programming Languages used:

- HTML, CSS and java-script at front end.
- PHP (pre-processor hypertext) at back-end.
- Apache server with MySQL at back-end.

2.4 Software used:

- PHPstorm IDE (integrated development environment), Mozilla.
- XAMPP (x-platform Apache MySQL PHP and Perl).
- Notepad++ and sublime-text editor, Microsoft Office.

2.5 Actors in the system

- Administrator.
- Student.

2.6 Functional Requirements

2.6.1 Admin Requirements

Administrator can
1) Login to his web page.
2) Add the menu.
3) Delete the menu.
4) View the menu.
5) Add the stock.
6) Delete the stock.
7) View the stock.
8) Add the student.
9) Delete the student.
10) View the student.
11) View responses of student.

2.6.2 Student Requirements

Student can
1) Login to his web page
2) View the menu
3) Add the choice

2.7 Non-Functional Requirements

1) Use of CSS to give best look and feel and animation.

2) Using encryption algorithms to encrypt the password.

3) All time service availability.

4) Less maintenance.

5) Supported with all browser.

6) Supports with different screen size and re-size w.r.t screen size ranging from 3.2 inch to 15 inch.

7) Validate all forms with java-script

CHAPTER 3

Implementation and Development

3.1 Class Diagram

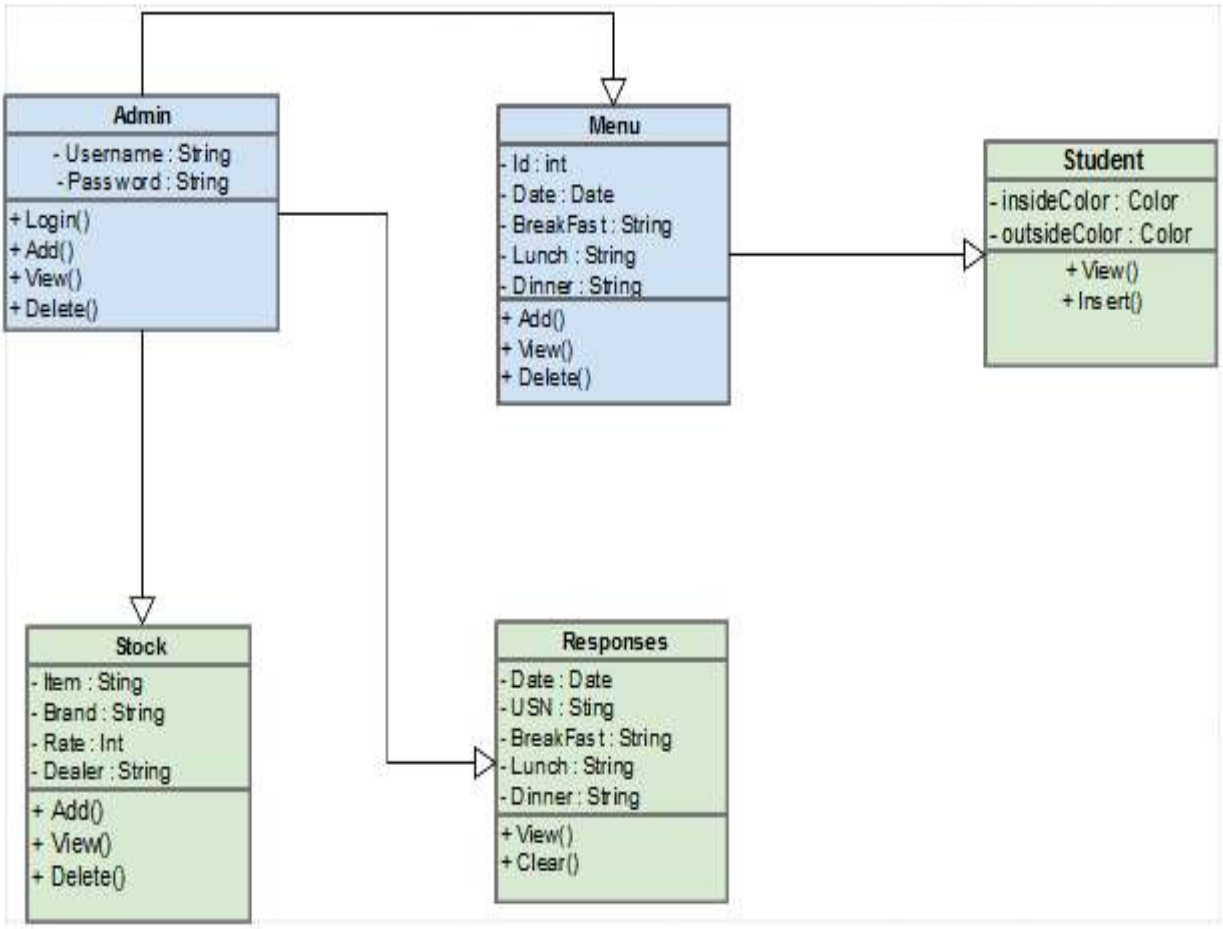
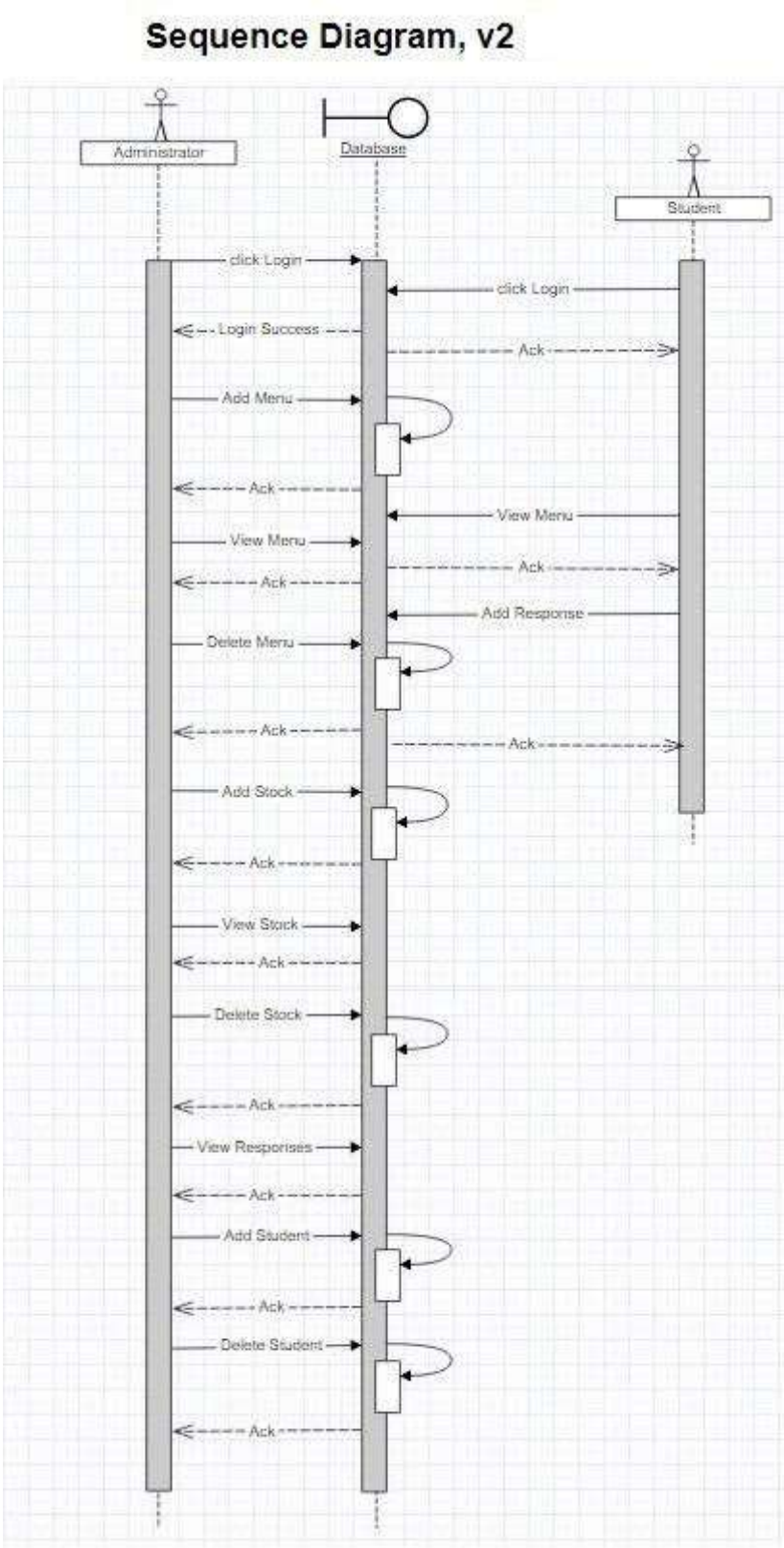
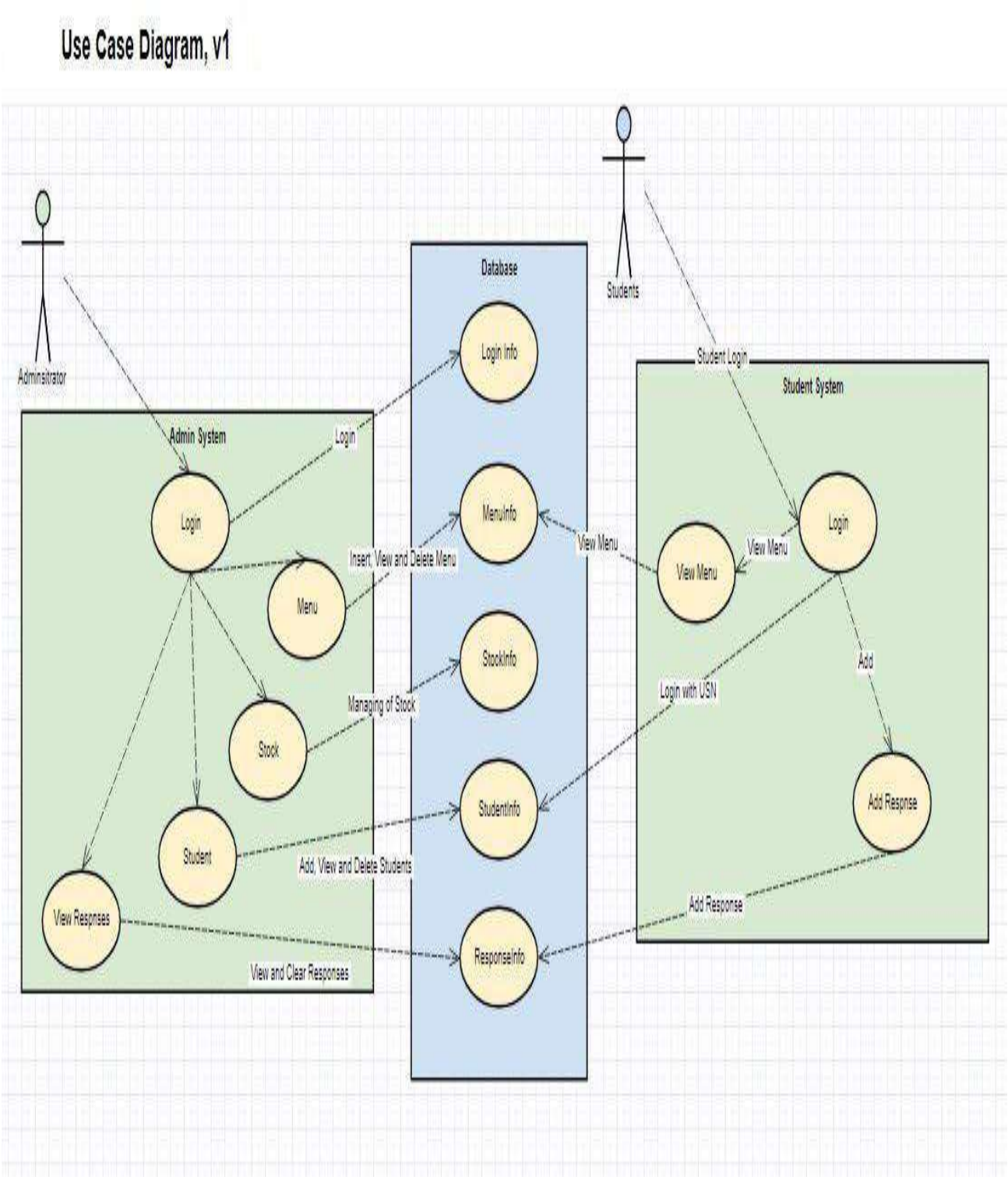


Fig 3.1 Class Diagram

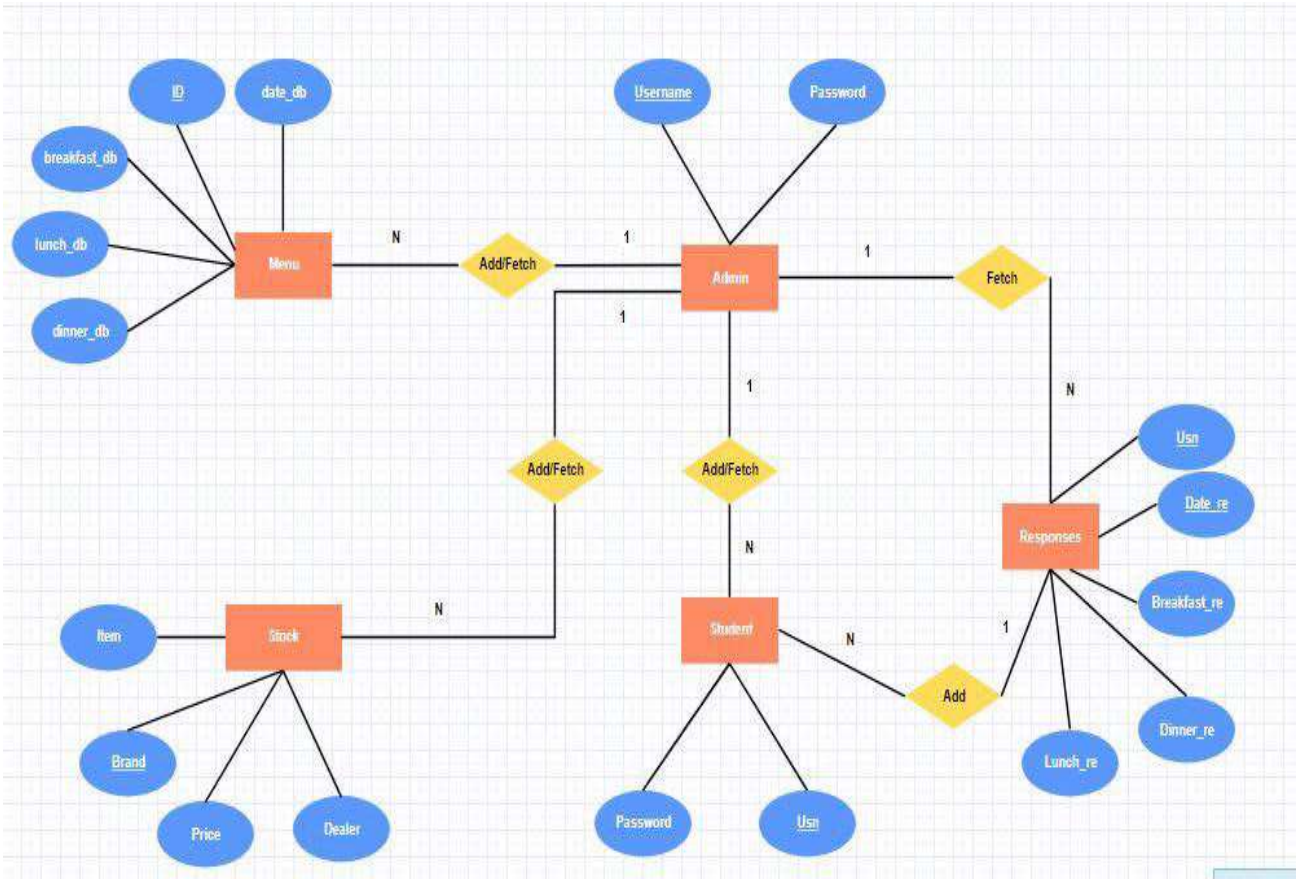
3.2 Sequence Diagram



3.3 Use Case Diagram



3.4 E R Diagram



CHAPTER 4

WORKING

This chapter explains how the web pages are organized and how the web page works/

4.1 Home page of the main website

The home page of website contains two options administrator login and student login.

When administrator logs in he/she is redirected to his/her login respective page.

When student logs in he/she is redirected to his/her respective login page.

There is also info about project, about and contact page in home page.

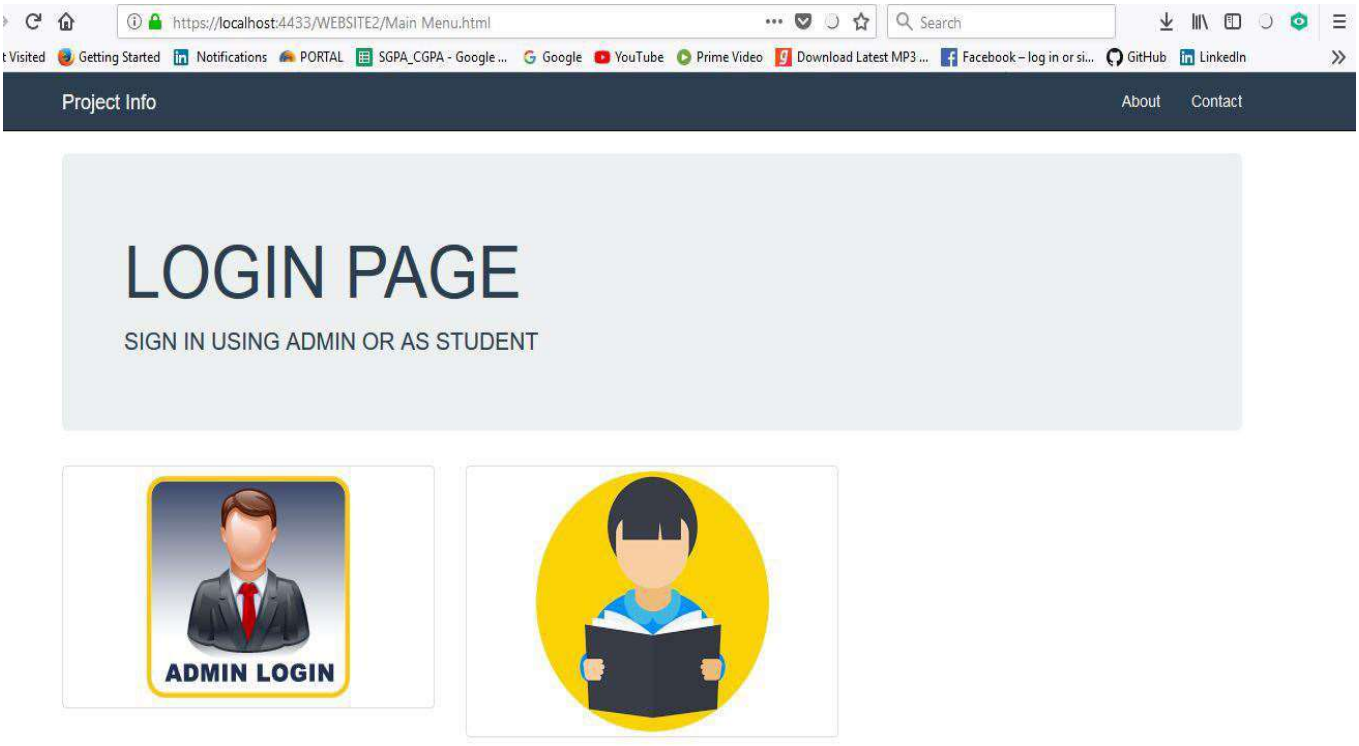


Fig 4.1 Home page

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4.2 Administrator

Administrator has the privileges to:

1) Add, view and delete menu.
2) Add, view, and delete stock
3) Add, view, and delete student.
4) View student responses.

4.2.1 Administrator Login page

In this page administrator is provided with a login page where he will enter username and password. The username and password is checked from the database where in an admin table information about admin is stored and data is retrieved and checked and if login is successful he is redirected to choice page.

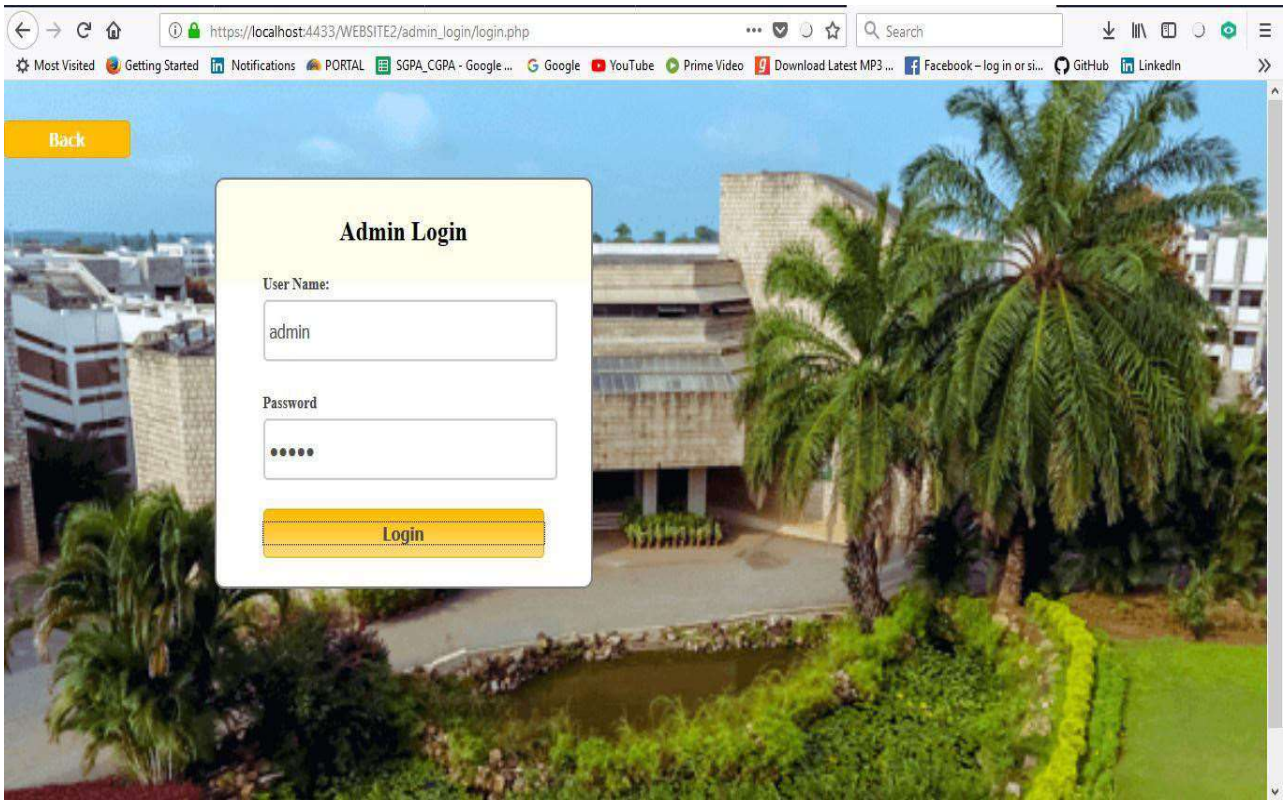

Fig 4.2 admin login page

As shown in Fig 4.2 there is a login page and there is button to login and user is prompted if successful.

4.2.2 Admin choice menu

This page contains the choice for the admin to:

1) Add, view and delete menu.
2) Add, view, and delete stock
3) Add, view, and delete student.
4) View student responses.

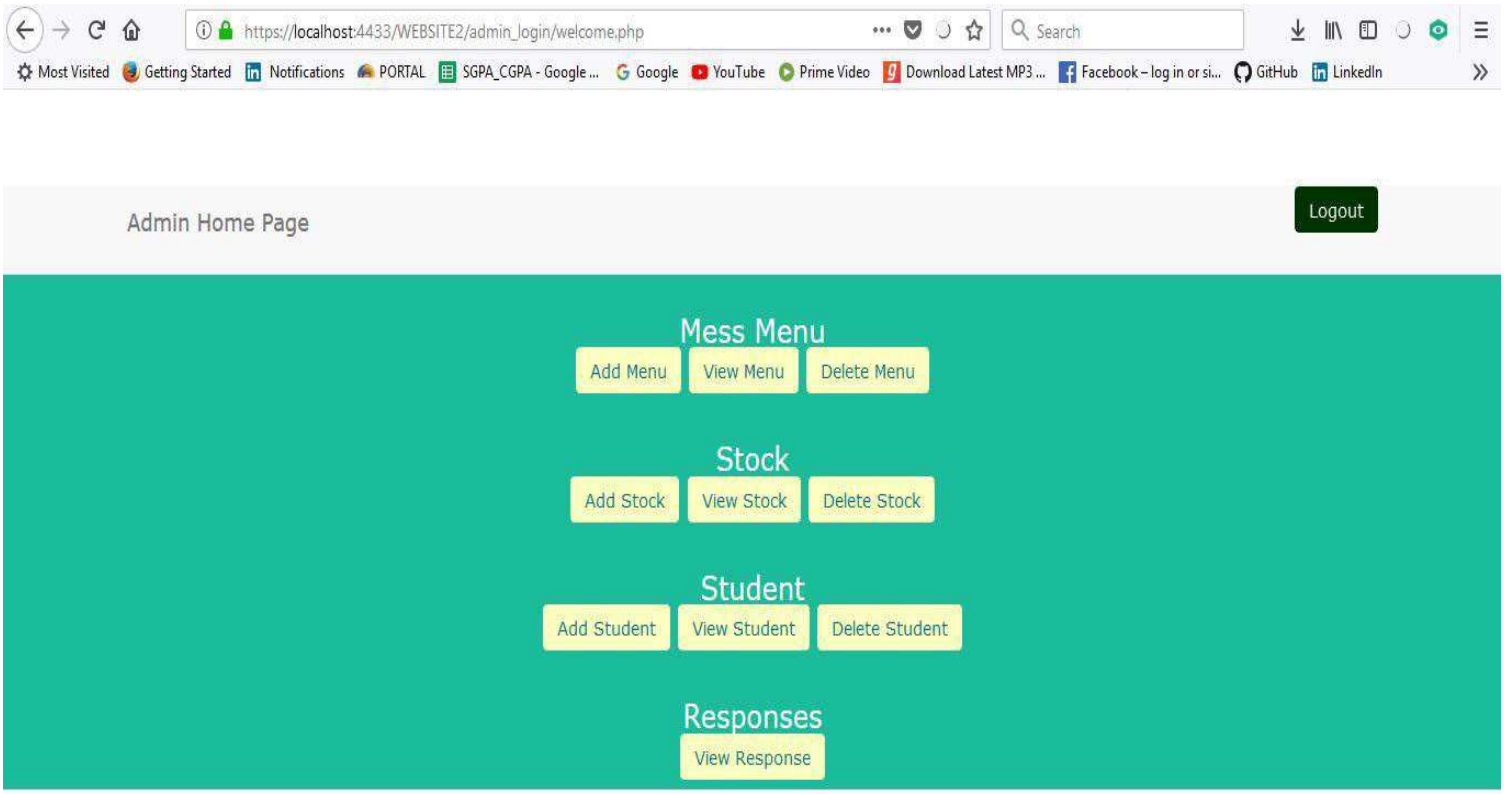

Fig 4.3 Admin Choice menu

4.2.3 Mess menu

a) Add mess menu

This page provides interface to add the menu to database.

This is done by providing date, breakfast, lunch and dinner. There will be an ID provided to each of the entries made which will be auto-incremented for every entry until the administrator clears the table. If the same date is entered it will not be inserted to database and it will be alerted as data present. If user does not select any menu it will be alerted as “Please select a menu”

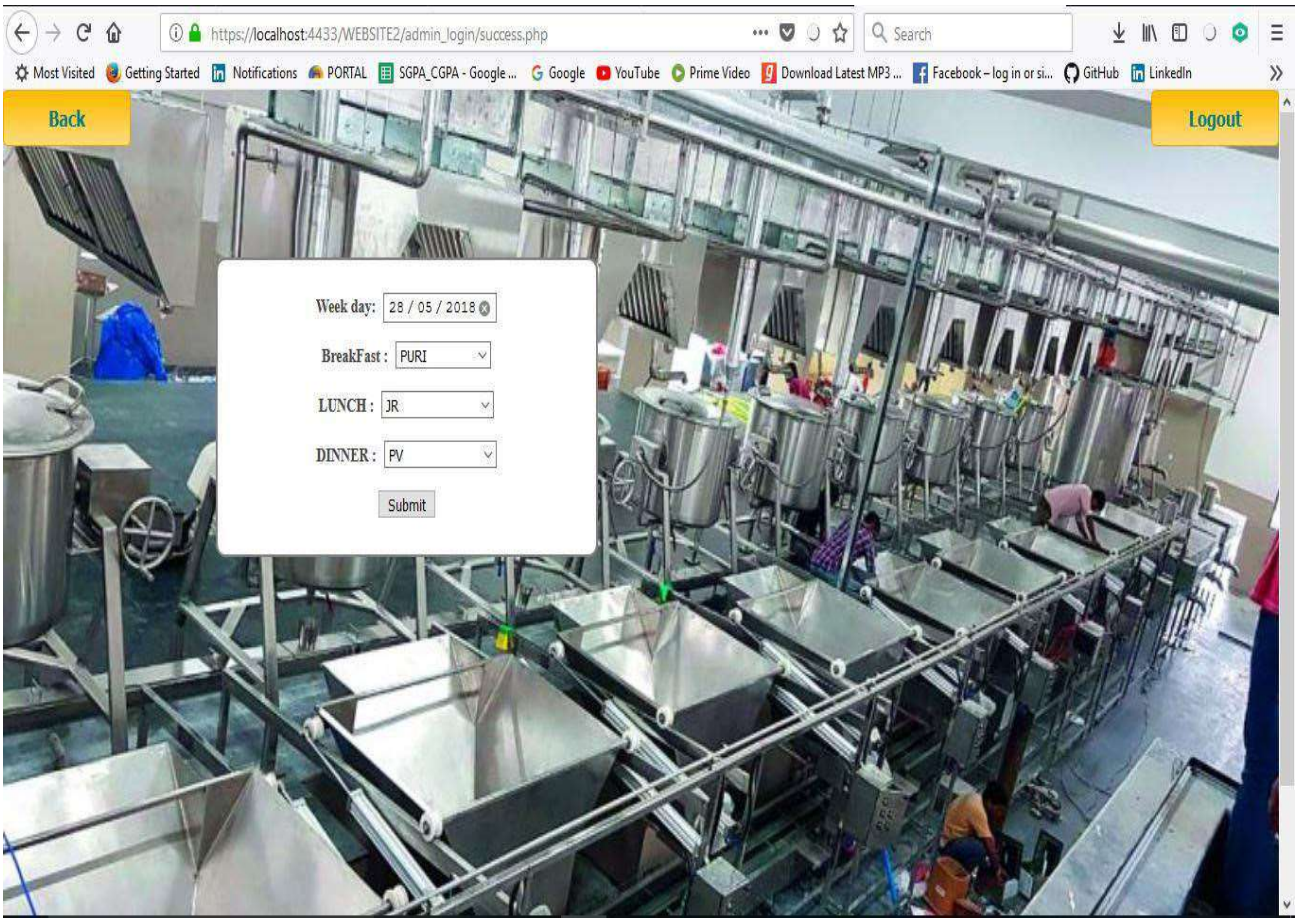

Fig. 4.4 Add menu

b) View mess menu

This page displays the menu which is present in the database

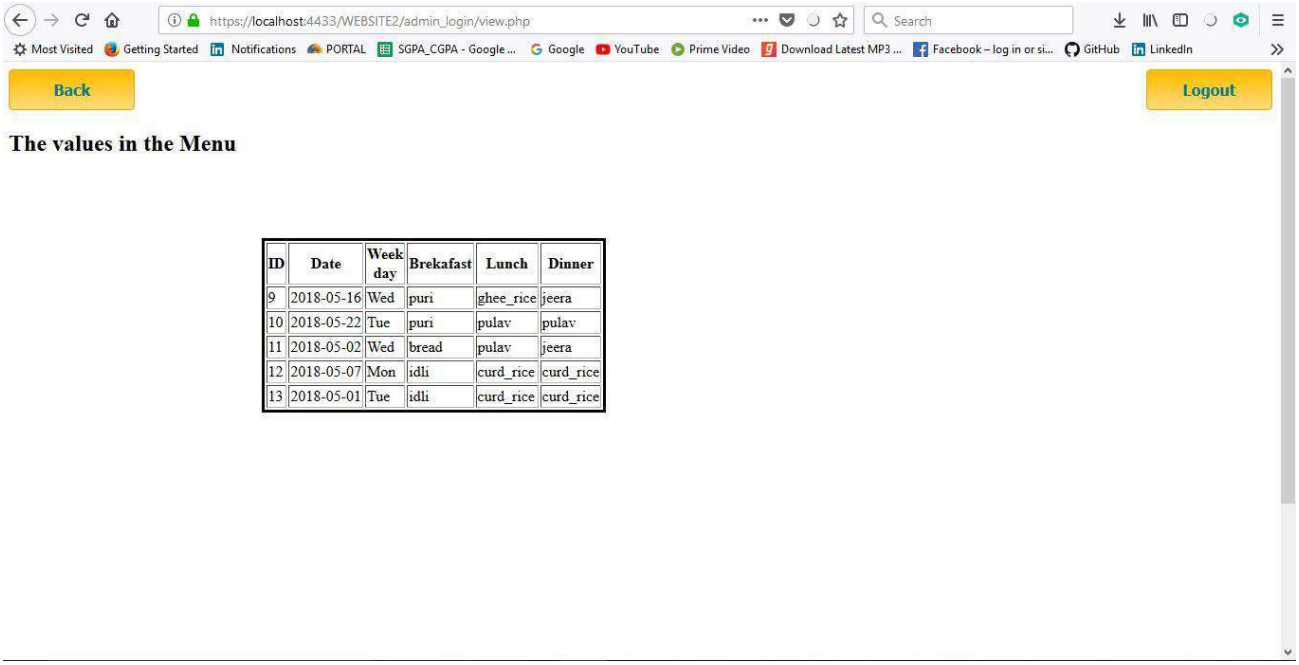

Fig 4.5 View Menu.

c) Delete mess menu

This page is used to delete from the menu.

Fig 4.6 Delete Menu

a) Add stock

This page provides interface to add the stock to database.
This is done by providing items, brand, rate and dealer.
There can be same items from different dealer so the items or dealer must be unique.
That is item and dealer are both made as composite primary key and respective alert message is popped.

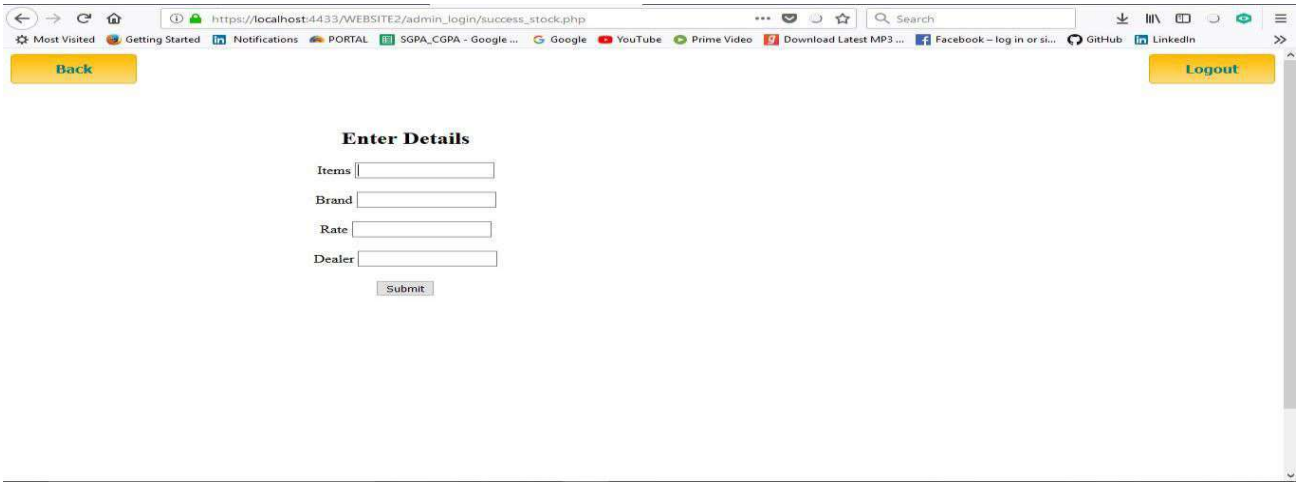

Fig 4.7 Add Stock

b) View stock

This page displays the stock which is present in the database.

c) Delete stock

This page is used to delete stock from the database since it has composite primary keys items and brand is provided to facilitate delete.

View button is also provided such that he can view the stock and delete it accordingly.

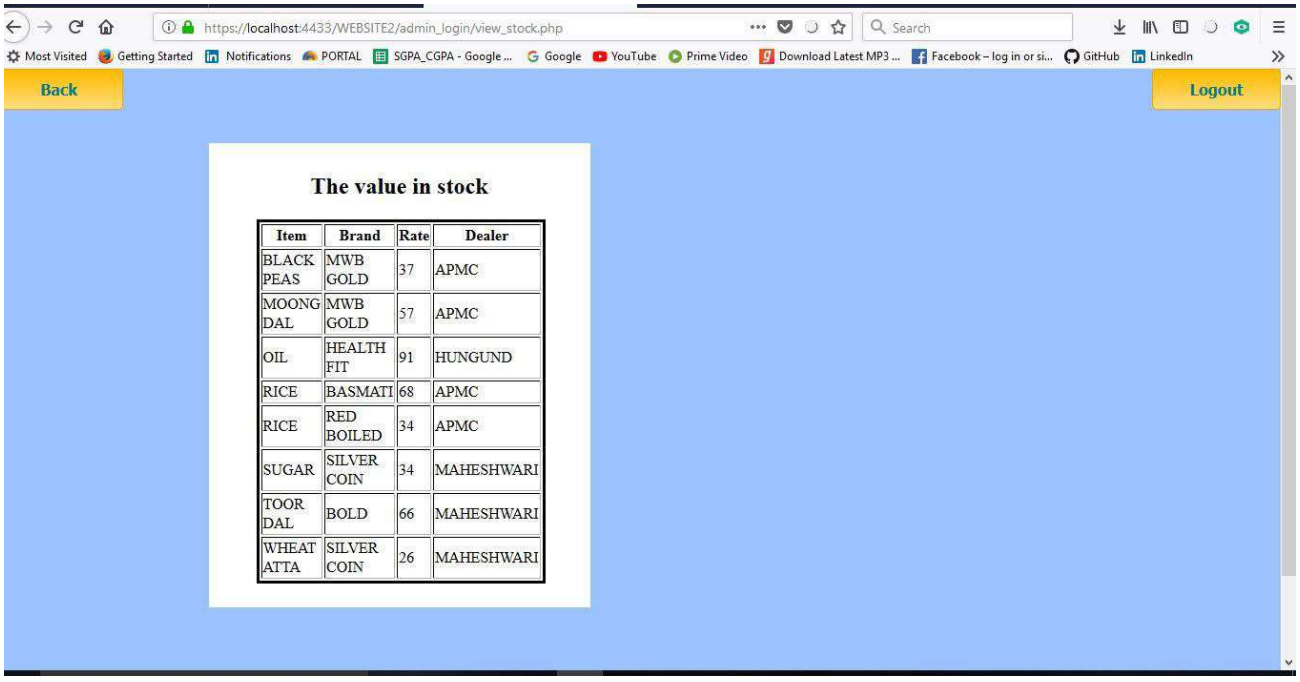

Fig 4.8 View Stock

4.2.5 Admin choice student

a) Add student

Here admin has facility to add the student and according to USN and password.

Student has to manually go to administrator to register himself.

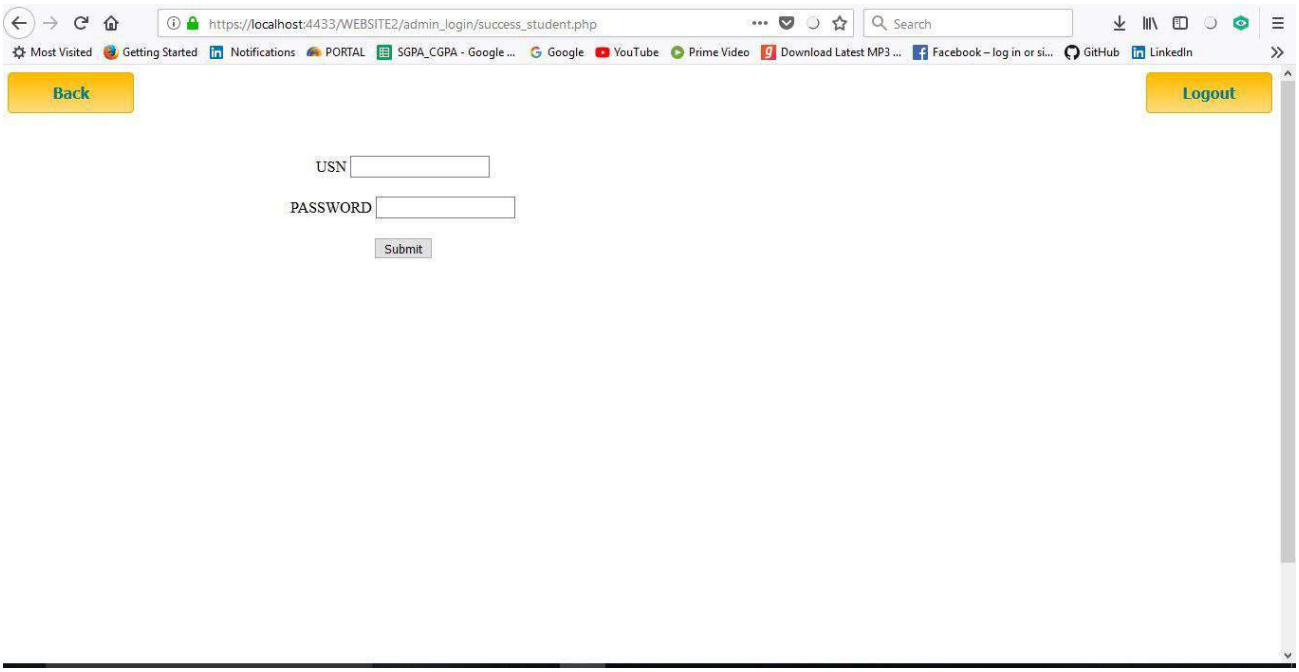

Fig 4.9 Add Student

b) View student

Admin can view student accordingly to the registered values.

b) Delete student

Admin can delete student by providing USN.

4.2.6 View Responses

In this page the responses are calculated. The date is given and that day response is shown with breakfast, lunch and dinner count as the entry for administrator.

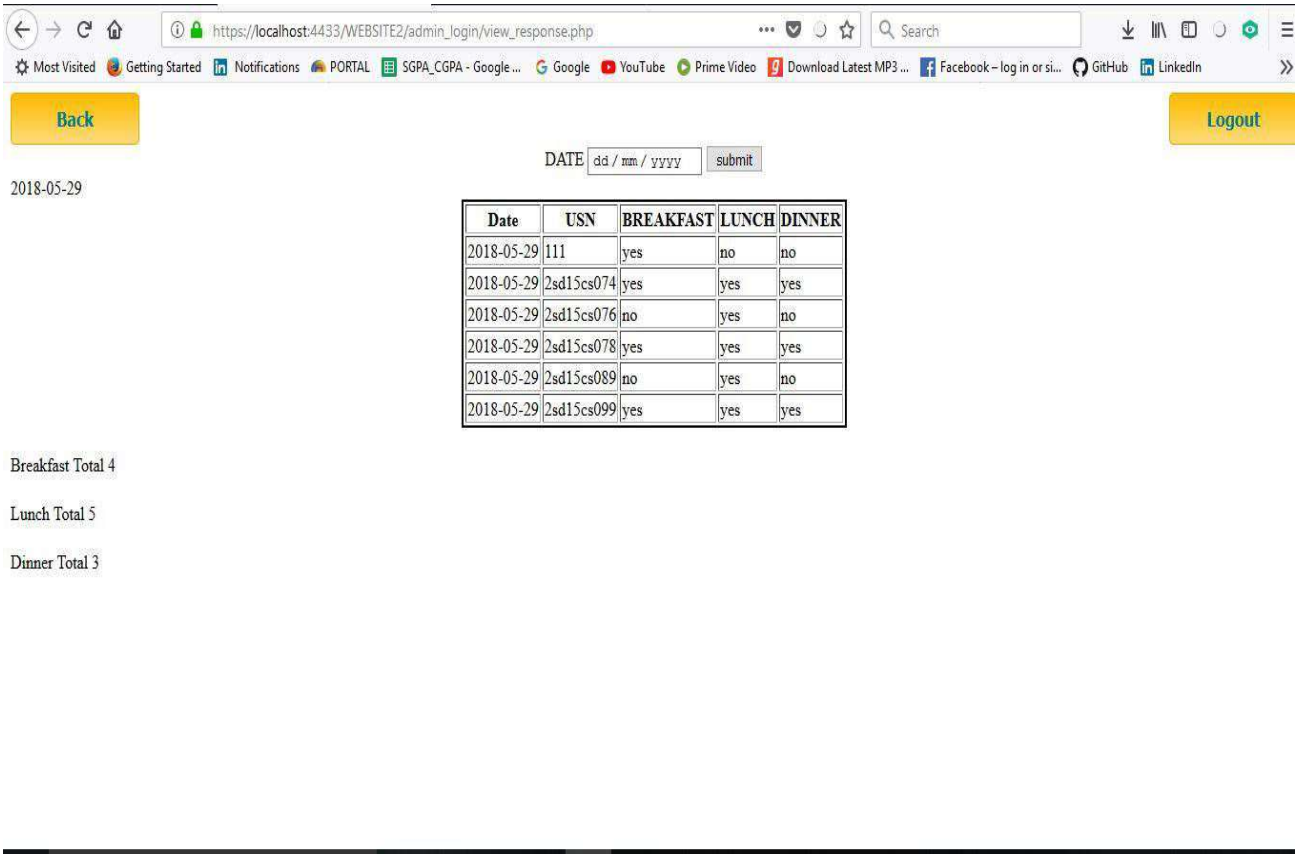

Fig 4.10 View Responses

4.3 Students

4.3.1 Student Login Page

Here User allowed to login by providing USN as username and his respective password provided by administrator.

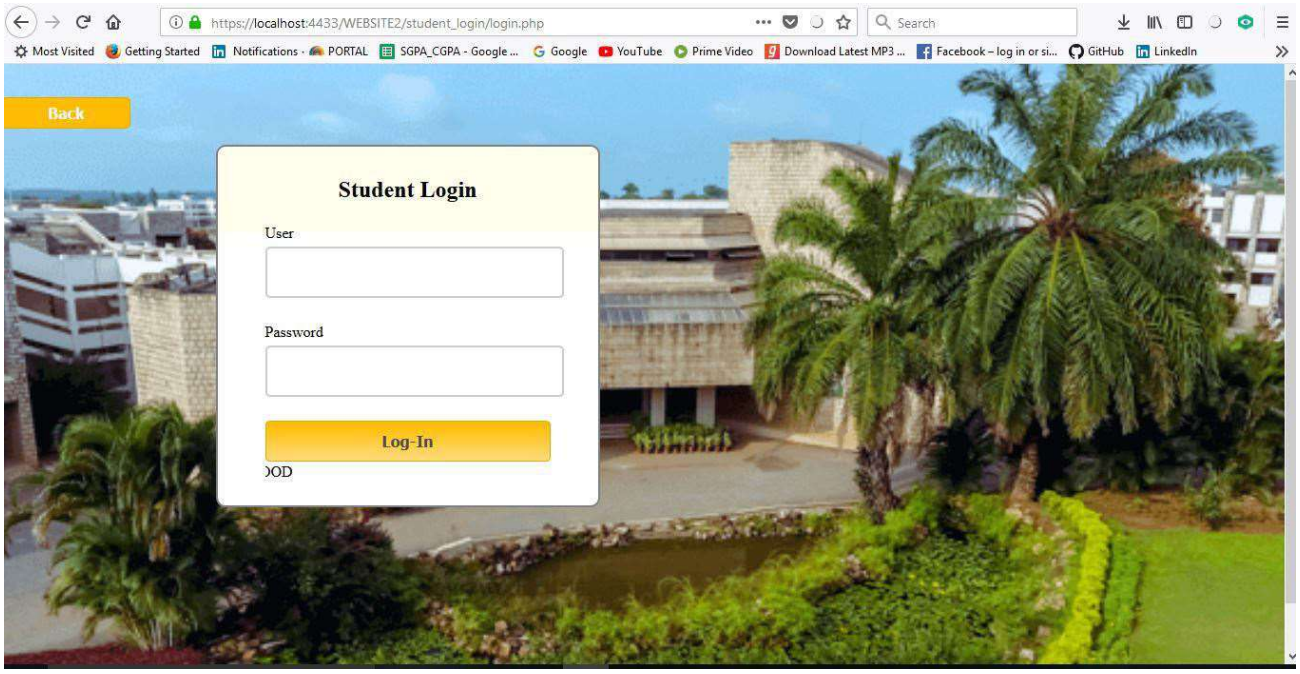

Fig 5.0 Student Login

4.3.2 Student Choice and view menu Page

Here user will check the menu and select day and select whether he will be coming for breakfast or lunch or dinner.

ID	Date	Week day	Brekafast	Lunch	Dinner
9	2018-05-16	Wed	puri	ghee_rice	jeera
10	2018-05-22	Tue	puri	pulav	pulav
11	2018-05-02	Wed	bread	pulav	jeera
12	2018-05-07	Mon	idli	curd_rice	curd_rice
13	2018-05-01	Tue	idli	curd_rice	curd_rice
14	2018-05-29	Tue	idli	curd_rice	curd_rice

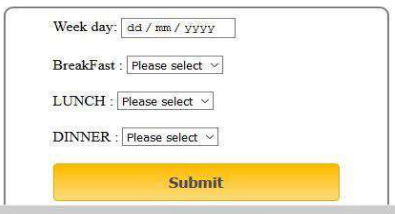

Fig 5.1 Student Choice

4.4 About

This page contains information about the project.

4.5 Contact Info

This page contains information about the developers of this project and their contact information. Contact info is provided such that users can contact them.

CHAPTER 5

RESULT, CONCLUSION, FUTURE SCOPE AND EXPECTED OUTCOME

5.1 Result

- A dynamic webpage with all the features as mentioned in the problem statement.
- A portal for students to provide responses.
- A portal for administrator to calculate everything as mentioned.

5.2 Conclusion

- The features of web development has been learnt
- PHP web development and its features have been learn and implemented.
- Java Script (Client-side) web development and features have been learnt and implemented
- Database management is learnt as required.
- Software Engineering concepts have been learnt and applied.
- Design of class, use-case and sequence diagram have been learnt.
- Domain study about project is done and is implemented up to the mark.

5.3 Future Scope

- Android app for students for entry of responses.
- Website modifications using Python and Django.
- Using of Mongo DB for maintenance of database.
- A perfect type validations.
- Using Big Data and Data mining to mine data.

5.4 Expected Outcome

- Demonstration of central elements like team building and team management through team involvement
- Preparation of project plan for software project that includes size, effort, schedule, resource allocation, configuration control.
- Indication of risk that helps to secure on-time delivery of software.
- Comparing different methods and techniques for quality of software product

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