

ABSTRACT

The abstract presents an overview of a Food Ordering Point of Sale (POS) system, a comprehensive and efficient solution designed to streamline and enhance the food ordering process in restaurants and food establishments. The system leverages advanced technologies to facilitate seamless order placement, payment processing, and inventory management, resulting in improved customer experiences and operational efficiency.

The Food Ordering POS system revolutionizes the way restaurants operate, streamlining their processes and enhancing customer satisfaction. By automating key tasks, improving accuracy, and providing valuable insights, this system becomes an indispensable asset in the highly competitive food industry.

So, their valuable data/information can be stored for longer period of time with easy accessing and manipulation and better services for the clients.

TABLE OF CONTENTS

TITLE	PAGE NO.
CHAPTER 1: INTRODUCTION	1-4
CHAPTER 2: REQUIREMENT ANALYSIS	5-19
CHAPTER 3: MODULE	20-21
CHAPTER 4: ER- DIAGRAM	22-23
CHAPTER 5: DATABASE DESIGN	24-26
CHAPTER 6: CODING	27-36
CHAPTER 7: TESTING	37-41
CHAPTER 8: SCREENSHOTS	42-45
CHAPTER 9: ANALYSIS AND DESIGN	46-47
CHAPTER 10: CONCLUSION	48-49
CHAPTER 11: FUTURE ENHANCEENT	50-52
CHAPTER 12: BIBLIOGRAPHY	53-54

CHAPTER 1

INTRODUCTION

INTRODUCTION

- Food Ordering Point of Sale (POS) system, a revolutionary platform designed to transform the way restaurants and food businesses manage their orders and operations. With a focus on simplicity, efficiency, and customer satisfaction, our POS system empowers your establishment to offer a seamless and delightful ordering experience.
- Say goodbye to long queues, order errors, and inefficient workflows. Food Ordering POS system streamlines the entire process, from order placement to payment processing, making it easier for your staff to handle peak hours while ensuring that your customers' needs are met promptly.

➤ Objective:

- The objectives of Food Ordering POS System is to manage the details of Food Items, Orders, Order Receipts, Food Stock, Customers. It manages all the information about the System.
- The project is totally made/built at administrative end and thus only administrator is guaranteed the access.
- The build purpose is to reduce the manual works as efforts.

➤ Functionalities:

- Provide the search facilities based on various factors. Such as Food Items, Order Receipts, Food stocks, Customers.
- Manages the Login Details online for food Stock details, Customers, etc.
- Track all aspects of information.

➤ Scope:

The scope for a Food Ordering POS System includes order management, menu management, online ordering, table management, inventory management, payment processing, reporting, loyalty

programs, delivery platform integration, and customer relationship management. It helps streamline operations, improve customer experiences, and adapt to changing trends in the food industry.

➤ **Existing System:**

- Content Management Systems (CMS): These systems allow for the creation and management of website content without the need for extensive coding knowledge. Popular CMS include WordPress, Drupal, and Joomla
- Server-side scripting languages: These languages allow for the creation of dynamic websites by generating HTML on the server-side, based on user requests. Examples of server-side scripting languages include PHP, Python, and Ruby.
- JavaScript frameworks: These are libraries of pre-written code that can be used to build complex dynamic websites. Examples of JavaScript frameworks include Angular, React.

➤ **Proposed System:**

The proposed system for a Food Ordering POS (Point of Sale) System aims to provide an efficient and user-friendly platform for restaurants and food establishments to manage their ordering processes, streamline operations, and enhance customer experiences. Here are the key features of the proposed system:

- Order Management: The system will enable easy order entry and tracking, allowing staff to manage dine-in, takeaway, and online orders seamlessly. It will display real-time order status, including order preparation, cooking time, and delivery status.
- Menu Management: The system will offer a simple interface for restaurants to create, modify, and update their menus. They can add new items, set prices, include descriptions, and manage item availability based on inventory.
- Online Ordering: Integration with a user-friendly website and mobile app will enable customers to place orders online, view menu options, make secure payments, and receive order confirmation in real-time.
- Inventory Management: The system will automatically update inventory levels as orders are processed, alerting the management when certain items are running low or out of stock. This helps in effective stock management and reduces wastage.
- Reporting and Analytics: The system will generate comprehensive reports and analytics to help restaurant owners analyze sales trends, popular items, peak hours,

and customer preferences. This data-driven approach can guide business decisions and strategies.

- **Customer Relationship Management (CRM):** The system will include a basic CRM module to capture customer data, preferences, and feedback. This information can be used to personalize services and foster better customer relationships.
- **Kitchen Display System (KDS):** For busy kitchens, the system will integrate with a Kitchen Display System (KDS) to ensure clear communication between the kitchen and serving staff, minimizing errors and enhancing order accuracy.
- The proposed Food Ordering POS System aims to offer a comprehensive solution that simplifies the food ordering process, enhances operational efficiency, and improves overall customer satisfaction. Its user-friendly interface, robust features, and integration capabilities with online platforms will enable restaurants to adapt to the ever-changing demands of the food industry and stay ahead of the competition.

CHAPTER 2

REQUIREMENT ANALYSIS

REQUIREMENT ANALYSIS

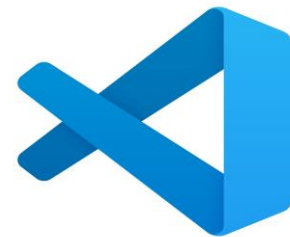
➤ **Problem definition:**

- In this section, we define problems. The problem is that, when results are to be declared, lot of money, physical space, man power is required. And there are so many candidates who needs to get their result, but due to medical illness or some emergency they are not able to visit the institute. Another problem is that, it depends on physical presence of the candidates to get their result.

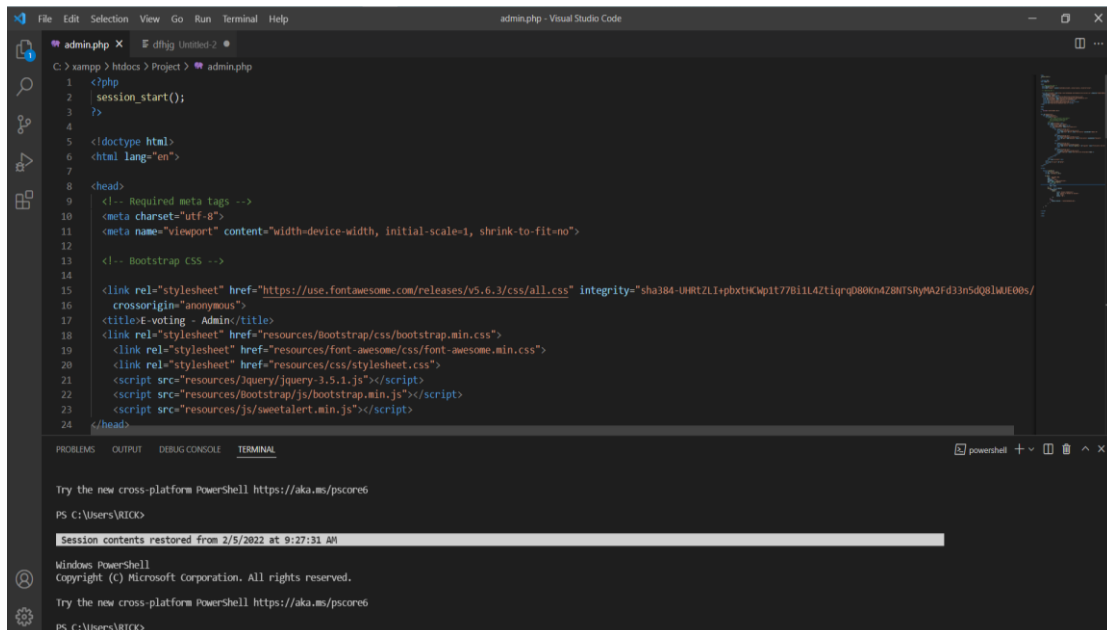
➤ **Applications requirements:**

1. Visual Studio Code:

- Visual Studio Code is an integrated development environment made by Microsoft for Windows, Linux and MACOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. Users can change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality. Microsoft has released most of Visual Studio Code's source code on GitHub under the permissive MIT License, while the releases by Microsoft are proprietary freeware.



- In the Stack Overflow 2021 Developer Survey, Visual Studio Code was ranked the most popular developer environment tool, with 70% of 82,000 respondents reporting that they use it. Visual Studio Code was first announced on April 29, 2015, by Microsoft at the 2015 Build conference. A preview build was released shortly thereafter. On November 18, 2015, the source of Visual Studio Code was released under the MIT License, and made available on GitHub. Extension support was also announced. On April 14, 2016, Visual Studio Code graduated from the public preview stage and was released to the Web.



The screenshot shows the Visual Studio Code interface. The main editor window displays the file `admin.php` with the following code:

```
1 <?php
2 session_start();
3 ?>
4
5 <!doctype html>
6 <html lang="en">
7
8 <head>
9 <!-- Required meta tags -->
10 <meta charset="utf-8">
11 <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
12
13 <!-- Bootstrap CSS -->
14
15 <link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.6.3/css/all.css" integrity="sha384-UhRTZI+pbxthCkPit77B114Ztigrq880Kn428NTSRyMA2Fd33n5dQ8lWUE00s/"
16 crossorigin="anonymous">
17 <title>E-voting - Admin</title>
18 <link rel="stylesheet" href="resources/Bootstrap/css/bootstrap.min.css">
19 <link rel="stylesheet" href="resources/Font-awesome/css/font-awesome.min.css">
20 <link rel="stylesheet" href="resources/css/styleSheet.css">
21 <script src="resources/Query/jquery-3.5.1.js"></script>
22 <script src="resources/Bootstrap/js/bootstrap.min.js"></script>
23 <script src="resources/js/sweetalert.min.js"></script>
24 </head>
```

The bottom panel shows the TERMINAL window with the following text:

```
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\KICO>
Session contents restored from 2/5/2022 at 9:27:31 AM
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
Try the new cross-platform PowerShell https://aka.ms/pscore6
PS C:\Users\KICO>
```

2. XAMPP:

- The full form of XAMPP is (X) stands for Cross-platform, (A) Apache server, (M) Maria DB, (P) PHP and (P) Perl. XAMPP is an open source free software developed by Apache friends. XAMPP software package contains Apache distributions for Apache server, Maria DB, PHP, and Perl. And it is basically a local host or a local server. This local server works on your own desktop or laptop computer. You can just install this software on your laptop or desktop and test the clients or your website before uploading it to the remote web server or computer. This XAMPP server software gives you suitable environment for testing MYSQL, PHP, Apache and Perl projects on the local computer.
- The Cross-platform usually means that it can run on any computer with any operating system. Next Maria DB is the most famous database server and it is developed by MYSQL team. PHP usually provides a space for web development. PHP is a server-side scripting language. And the last Perl is a programming language and is used to develop a web application.

➤ **Main Tools of XAMPP and its Definition:**

- XAMPP contains tools such as Apache, MYSQL, PHP, and Perl. We will see these tools.

➤ **Apache:**

- Apache server is an open source free software which is initially developed by a group of software developers and now it is maintained by Apache software foundation. Apache HTTP is a remote server (computer) if someone request files, images or documents using their browser they will serve those files to clients using HTTP servers. Mainly hosting companies use this application to create a VPS server and shared hosting for their clients.

➤ **MYSQL:**

- MYSQL is open-source software. It is actually a relational database management system (RDBMS). This SQL stands for Structured Query Language. It is the most popular and best RDBMS used for developing a variety of web-based software applications. With the help of MYSQL, it is possible to organize the information, manage, retrieve and update the data whenever you wish to do.

➤ **PHP:**

The full form of PHP is Hypertext Preprocessor. It is a server-side scripting language that helps you to create dynamic websites. This language is mainly used to build web-based software applications. It is open-source software and works fine with MYSQL. What actually happens is, the PHP code will be executed on the server and at the browser side its HTML code will be displayed.

• **Programming Technology Requirements:**

HTML:

- HTML (Hyper Text Markup Language) is the most basic building block of the Web. It defines the meaning and structure of web content. Other technologies besides HTML are generally used to describe a web page's appearance/presentation (CSS) or functionality/behavior (JavaScript). "Hypertext" refers to links that connect web pages to one another, either within a single website or between websites. Links are a fundamental aspect of the Web. By uploading content to the Internet and linking it to pages created by other people, you become an active participant in the World Wide Web.
- HTML uses "markup" to annotate text, images, and other content for display in a Web browser. HTML markup includes special "elements" such as <head>, <title>, <body>, <header>, <footer>, <article>, <section>, <p>, <div>, , , <aside>, <audio>, <canvas>, <datalist>, <details>, <embed>, <nav>, <output>, <progress>, <video>, , , and many others.
- An HTML element is set off from other text in a document by "tags", which consist of the element name surrounded by "<" and ">". The name of an element inside a tag is case

insensitive. That is, it can be written in uppercase, lowercase, or a mixture. For example, the <title> tag can be written as <Title>, <TITLE>, or in any other way.

CSS:

- Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.
- CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file which reduces complexity and repetition in the structural content as well as enabling the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.
- Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.
- The name cascading comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.
- The CSS specifications are maintained by the World Wide Web Consortium (W3C). Internet media type (MIME type) text/css is registered for use with CSS by RFC 2318 (March 1998). The W3C operates a free CSS validation service for CSS documents. In addition to HTML, other markup languages support the use of CSS including XHTML, plain XML, SVG, and XUL.

JavaScript:

- JavaScript often abbreviated as JS, is a programming language that conforms to the ECMAScript specification. JavaScript is high-level, often just-in-time compiled, and multi-paradigm. It has curly bracket syntax, dynamic typing, prototype-based object orientation, and first-class functions.
- Alongside HTML and CSS, JavaScript is one of the core technologies of the World Wide Web. JavaScript enables interactive web pages and is an essential part of web applications. The vast majority of websites use it for client side page behavior and all major web browsers have a dedicated JavaScript engine to execute it.
- As a multi-paradigm language, JavaScript supports event driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM). However, the language itself does not include any input/output (I/O), such as networking, storage, or graphics facilities, as the host environment (usually a web browser) provides those APIs.
- JavaScript engines were originally used only in web browsers, but they are now embedded in some servers, usually via Node.js. They are also embedded in a variety of applications created with frameworks such as Electron and Cordova.
- Although there are similarities between JavaScript and Java, including language name, syntax, and respective standard libraries, the two languages are distinct and differ greatly in design.

Bootstrap:

- Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components.
- Bootstrap is a web framework that focuses on simplifying the development of informative web pages (as opposed to web apps). The primary purpose of adding it to a web project is

to apply Bootstrap's choices of color, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. The result is a uniform appearance for prose, tables and form elements across web browsers. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark-colored tables, page headings, more prominent pull quotes, and text with a highlight.

- Bootstrap also comes with several JavaScript components in the form of jQuery plugins. They provide additional user interface elements such as dialog boxes, tooltips, and carousels. Each Bootstrap component consists of an HTML structure, CSS declarations, and in some cases accompanying JavaScript code. They also extend the functionality of some existing interface elements, including for example an autocomplete function for input fields.
- Example of a webpage using Bootstrap framework rendered in Firefox. The most prominent components of Bootstrap are its layout components, as they affect an entire web page. The basic layout component is called "Container", as every other element in the page is placed in it. Developers can choose between a fixed-width container and a fluid-width container. While the latter always fills the width of the web page, the former uses one of the four predefined fixed widths, depending on the size of the screen showing the page:
 - Smaller than 576 pixels
 - 576–768 pixels
 - 768–992 pixels
 - 992–1200 pixels
 - Larger than 1200 pixels
- Once a container is in place, other Bootstrap layout components implement a CSS Flexbox layout through defining rows and columns.
- A precompiled version of Bootstrap is available in the form of one CSS file and three JavaScript files that can be readily added to any project. The raw form of Bootstrap,

however, enables developers to implement further customization and size optimizations. This raw form is modular, meaning that the developer can remove unneeded components, apply a theme and modify the uncompiled Sass files.

jQuery:

- JQuery is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax. [3] It –is free, open source software using the permissive MIT License. As of May 2019, jQuery is used by 73% of the 10 million most popular websites. Web analysis indicates that it is the most widely deployed JavaScript library by a large margin, having at least 3 to 4 times more usage than any other JavaScript library.
- JQuery's syntax is designed to make it easier to navigate a document, select DOM elements, create animations, handle events, and develop Ajax applications. jQuery also provides capabilities for developers to create plug-ins on top of the JavaScript library. This enables developers to create abstractions for low-level interaction and animation, advanced effects and high-level, them able widgets. The modular approach to the jQuery library allows the creation of powerful dynamic web pages and Web applications
- The set of jQuery core features—DOM element selections, traversal and manipulation—enabled by its selector engine (named "Sizzle" from v1.3), created a new "programming style", fusing algorithms and DOM data structures. This style influenced the architecture of other JavaScript frameworks like YUI v3 and Dojo, later stimulating the creation of the standard Selectors API. Later, this style has been enhanced with a deeper algorithm-data fusion in an heir of jQuery, the D3.js framework.
- Microsoft and Nokia bundle jQuery on their platforms. Microsoft includes it with Visual Studio for use within Microsoft's ASP.NET AJAX and ASP.NET MVC frameworks while Nokia has integrated it into the Web Run-Time widget development platform.

Ajax:

- Ajax is a set of web development techniques using many web technologies on the client side to create asynchronous web applications. With Ajax, web applications can send and retrieve data from a server asynchronously (in the background) without interfering with the display and behavior of the existing page. By decoupling the data interchange layer from

the presentation layer, Ajax allows web pages and, by extension, web applications, to change content dynamically without the need to reload the entire page.[3] In practice, modern implementations commonly utilize JSON instead of XML.

- Ajax is not a single technology, but rather a group of technologies. HTML and CSS can be used in combination to mark up and style information. The webpage can then be modified by JavaScript to dynamically display—and allow the user to interact with—the new information. The built-in XMLHttpRequest object, or since 2017 the new "fetch ()" function within JavaScript, is commonly used to execute Ajax on webpages, allowing websites to load content onto the screen without refreshing the page. Ajax is not a new technology, or different language, just existing technologies used in new ways.
- The term Ajax has come to represent a broad group of Web technologies that can be used to implement a Web application that communicates with a server in the background, without interfering with the current state of the page. In the article that coined the term Ajax,[1][3] Jesse James Garrett explained that the following technologies are incorporated:
 1. HTML (or XHTML) and CSS for presentation
 2. The Document Object Model (DOM) for dynamic display of and interaction with data
 3. JSON or XML for the interchange of data, and XSLT for XML manipulation
 4. The XMLHttpRequest object for asynchronous communication
 5. JavaScript to bring these technologies together
- Since then, however, there have been a number of developments in the technologies used in an Ajax application, and in the definition of the term Ajax itself. XML is no longer required for data interchange and, therefore, XSLT is no longer required for the manipulation of data. JavaScript Object Notation (JSON) is often used as an alternative format for data interchange, although other formats such as preformatted HTML or plain text can also be used. A variety of popular JavaScript libraries, including JQuery, include abstractions to assist in executing Ajax requests.

PHP:

- Hypertext Preprocessor is a server side scripting language— designed for web development and also used as a general-purpose programming language. It was originally created by

Ramus Leadoff in 1994. The PHP reference is now produced by the PHP group. PHP originally stood for personal home page. But now it stands for recursive initialism PHP hypertext preprocessor.

- PHP code may be embedded into html code. It can be used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a common gateway interface executable. The web server combines the results of interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command line interface and can be used to implement standalone graphical applications.
- The standard PHP interpreter, powered by the Zend engine, is free software released under the PHP license. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge.
- The PHP language evolved without a written formal specification or standard until 2014, with the original implementation acting as the de facto standard.

What is a PHP File?

- PHP files can contain text, HTML, CSS, JavaScript, and PHP code.
- PHP code are executed on the server, and the result is returned to the browser as plain HTML.
- PHP files have extension ".PHP".

What Can PHP Do?

- PHP can generate dynamic page content
- PHP can create, open, read, write, delete, and close files on the server
- PHP can collect form data
- PHP can send and receive cookies
- PHP can add, delete, modify data in your database
- PHP can be used to control user-access

- PHP can encrypt data
- With PHP you are not limited to output HTML. You can output images, PDF files, and even flash movies. You can also output any text, such as XHTML and XML.

Why PHP?

- PHP runs on various platforms (Windows, Linux, UNIX, Mac OS X, etc.)
- PHP is compatible with almost all servers used today (Apache, IIS, etc.)
- PHP supports a wide range of databases
- PHP is free. Download it from the official PHP resource: www.PHP.net
- PHP is easy to learn and runs efficiently on the server side
- PHP is an amazing and popular language!
- It is powerful enough to be at the core of the biggest blogging system on the web (WordPress)!
- It is deep enough to run the largest social network (Facebook)!
- It is also easy enough to be a beginner's first server-side language!

Advantages of PHP:

The reason behind the popularity of PHP is its several advantages. PHP is most suited for the purpose of web development. The advantages of PHP are discussed briefly below:

1. Cross Platform:

- All the PHP based applications can run on various types of platforms. PHP is supported by majority of Operating Systems, some of which includes Solaris, UNIX, Windows and Linux. The mentioned platforms can be used to write codes in PHP and also view web pages or run the PHP based applications.
- PHP easily interfaces with MySQL and Apache both. An effortless integration of PHP can be done with various other technologies like Java and there is no requirement of redevelopment. Therefore, saving both time and money, giving it an important advantage.

2. Easy database connection:

- A programming language like PHP is widely used on the internet and needs to connect to the database very often. Therefore, having a feature that could help PHP to connect to database easily is mandatory. Several websites such as the ecommerce websites require good database management system.
- PHP has a built-in module that helps it in connecting with database easily. Therefore, PHP has a great demand in the field of web development where a data driven website needs to be developed. PHP significantly reduces the time needed in developing the web application that needs an efficient database management system.

3. Easy to use:

- PHP is widely used because it is easy to use. In contrast with other programming languages that are complex, PHP is simple, fluent, clean and organized; hence it is a boon for the new users. PHP has a well-organized syntax which is logical at the same time.
- PHP does not require any intensive studying or manual to use it. Command functions of PHP are easily understood as the user can easily figure out from the name of the commands itself what it does. A person who is new to PHP can still code because the syntax is somewhat similar to C.
- A person who is new to PHP can still code because the syntax is somewhat similar to C. Hence, if a person who knows C can easily code in PHP. Hence, it is easier to create and optimize the application using PHP.

4. Speed:

- Speed is the primary need of web development. There are people who face the challenge of slow internet connection and slow data speed. Furthermore, a fast-loading website is always preferred by people across the globe. When compared to other programming languages, PHP is found to be the fastest programming language.
- In normal circumstances, it takes a lot of time to connect to the database, when you attempt to fetch certain data from the database. It takes a lot of time in connecting to the database, then executing the statement and finally getting the data. PHP performs these set

of tasks faster than other scripting languages. PHP is faster in both connecting to the database and in using other important applications.

- The high speed of PHP gives it an advantage over other scripting languages and gives it an application in important administrations such as the server administration and mail functionalities.

5. Open source:

- One of the important advantages of PHP is that it is Open-Source. Therefore, PHP is readily available and is entirely free. In contrast to other scripting languages used for web development which requires the user to pay for the support files, PHP is open to everyone, anytime and anywhere.
- A beginner in PHP need not worry about the support as PHP is maintained and developed by a large group of PHP developers which helps in creating support community of PHP that helps people in PHP implementation and manipulation.

- **System minimum requirements:**

Hardware System Configuration: -

- Processor - Dual Core/ Pentium/ i3 Intel Processor
- RAM - 2 GB
- Hard Disk - 512MB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse

Software System Configuration: -

- Operating System - Windows XP/7/8/10
- Server-side Script – PHP
- Database - MySQL 6.0

Research Methodology:

- A research methodology is the elaboration of a clear strategy for gathering evidence, including the specific data collection methods to be used, the kinds of evidence to be collected, and the approach for analyzing the evidence (Darian-Smith & McCarthy, 2017). It is the path to solve a research problem. Hence it must be planned according to the objectives of the study.

Data Analysis:

- The classification and tabulation transfer the raw data collected into useful information by organizing and compiling the bits of data into graphically understandable manner, and in the current research it was done with the help of a UML (Unified Modelling Language) modelling tool.

System Analysis:

- Systems development is mainly done in two phases namely, system analysis and design. And this chapter focuses on analyzing the research data and describing a logical view of the whole process, by modelling the data analyzed in the form of diagrams to visualize the design and specifications of the system in an object-oriented manner. The analysis phase answers the questions of who will use the system, what the system will do, and where and when it will be used. During this phase, the research team investigates any current system(s), identifies opportunities for improvement, and develops a concept for the new system.

System Design:

- The purpose of the analysis phase is to figure out what the business needs and right after system analysis, started system design whose purpose is to decide how to build the same system. And according to Dennis et al system design is the determination of the overall system architecture consisting of a set of physical processing components, hardware, software, people, and the communication among them, that will satisfy the system's essential requirements. During the initial part of design, the business requirements for the system are converted into system requirements that describe the technical details for building the system.

CHAPTER 3

MODULE

MODULE

The entire project mainly consists of three modules:

1. Log In
 - ✓ Admin Login
 - ✓ Cashier Login
 - ✓ Customer Login
2. Add Cashier
 - ✓ Admin Access to all
3. User Profile
 - ✓ All users have separate one
4. Manage Products
5. Customer Registration
6. Payment Receipt Generation
7. Logout

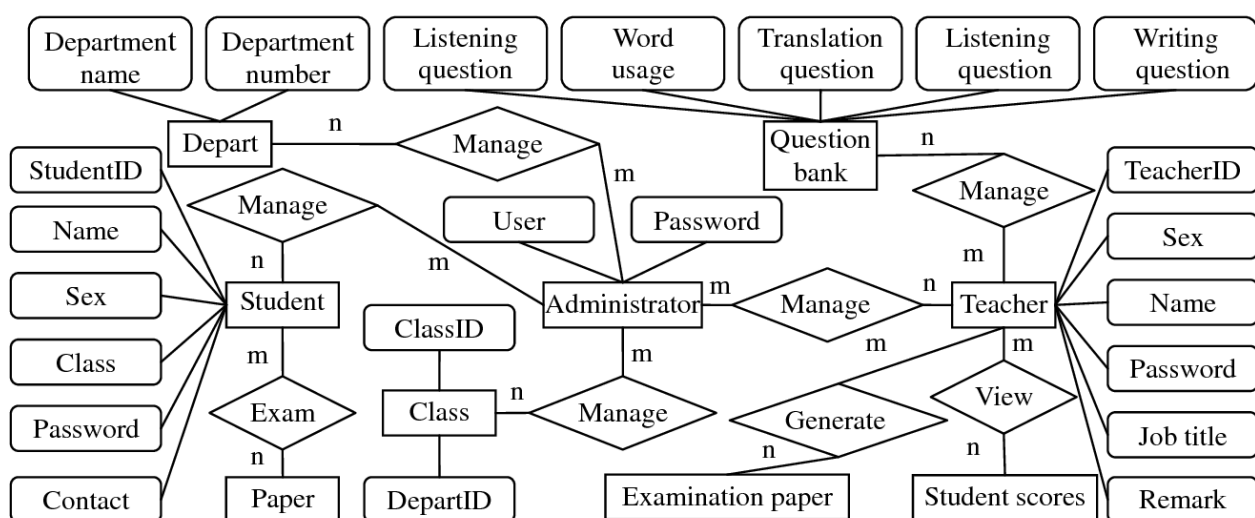
CHAPTER 4

ER- DIAGRAM

Entity Relationship Diagram:

- An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs.
- ER diagrams are related to data structure diagrams (DSDs), which focus on the relationships of elements within entities instead of relationships between entities themselves. ER diagrams also are often used in conjunction with data flow diagrams (DFDs), which map out the flow of information for processes or systems.

ER- DIAGRAM



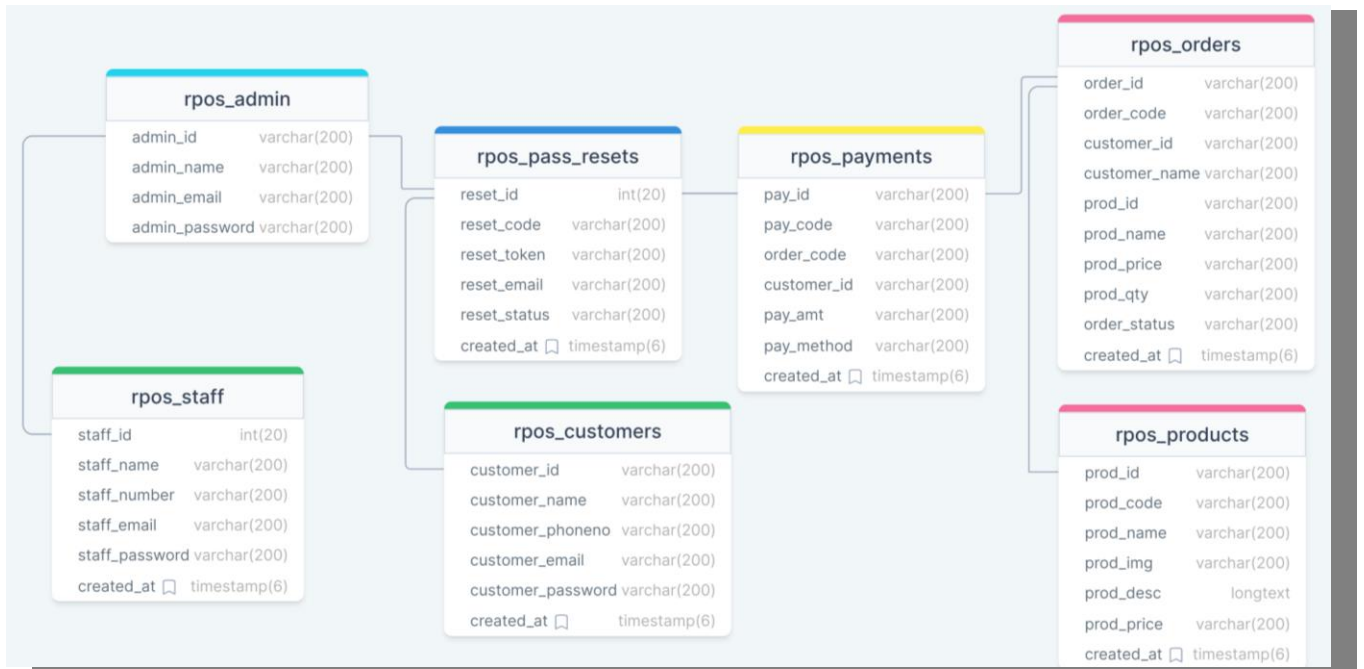
CHAPTER 5

DATABASE DESIGN

Database Design:

- From the analysis phase, a logical model of the system was created. And the following particular activity describes the proposed system's data organization, storage and management. Which is to be managed by the DBMS a system responsible for storing, retrieving and protecting the data. These issues are important as they affect the consistency and quality of the data. The data is structured in files or tables that interact in various ways. Each table contains data about students, professors, users and subjects. According to Dennis, relational database is the most popular kind of database for application development today. And it is based on collections of tables with each table having a primary key, which is a field or fields whose values are unique for every row of the table and are used to identify each row or record. The tables are related to one another by placing the primary key from one table into the related table as a foreign key. Most relational database management systems (RDBMS) support referential integrity, or the idea of ensuring that values linking the tables together through the primary and foreign keys are valid and correctly synchronized.

- Design



CHAPTER 6

CODING

SAMPLE CODE

Index:

```
<!DOCTYPE html>
<html lang="{ { str_replace('_', '-', app()->getLocale()) } }">

<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">

  <title>Restro POS System -by ARATHY KUMAR</title>

  <!-- Fonts -->
  <link href="https://fonts.googleapis.com/css?family=Nunito:200,600" rel="stylesheet">

  <!-- Styles -->
  <style>
    html,
    body {
      background-color: #fff;
      color: #636b6f;
      font-family: 'Nunito', sans-serif;
      font-weight: 200;
      height: 100vh;
      margin: 0;
    }

    .full-height {
      height: 100vh;
    }

    .flex-center {
      align-items: center;
      display: flex;
      justify-content: center;
    }

    .position-ref {
      position: relative;
    }

    .top-right {
      position: absolute;
      right: 10px;
      top: 18px;
    }

    .content {
      text-align: center;
    }

    .title {
```

```

        font-size: 84px;
    }

    .links>a {
        color: #636b6f;
        padding: 0 25px;
        font-size: 13px;
        font-weight: 600;
        letter-spacing: .1rem;
        text-decoration: none;
        text-transform: uppercase;
    }

    .m-b-md {
        margin-bottom: 30px;
    }
</style>
</head>

<body>
<div class="flex-center position-ref full-height">
    <div class="content">
        <div class="title m-b-md">
            Restaurant POS
        </div>

        <div class="links">
            <a href="Restro/admin/">Admin Log In</a>
            <a href="Restro/cashier/">Cashier Log In</a>
            <a href="Restro/customer">Customer Log In</a>
        </div>
    </div>
</div>
</body>

</html>

```

Add Products:

```

<?php
session_start();
include('config/config.php');
include('config/checklogin.php');
include('config/code-generator.php');

check_login();
if (isset($_POST['addProduct'])) {
    //Prevent Posting Blank Values
    if (empty($_POST['prod_code']) || empty($_POST['prod_name']) ||
        empty($_POST['prod_desc']) || empty($_POST['prod_price'])) {
        $err = "Blank Values Not Accepted";
    } else {

```

```

$prod_id = $_POST['prod_id'];
$prod_code = $_POST['prod_code'];
$prod_name = $_POST['prod_name'];
$prod_img = $_FILES['prod_img']['name'];
move_uploaded_file($_FILES["prod_img"]["tmp_name"], "assets/img/products/" .
$_FILES["prod_img"]["name"]);
$prod_desc = $_POST['prod_desc'];
$prod_price = $_POST['prod_price'];
//Insert Captured information to a database table
$postQuery = "INSERT INTO rpos_products (prod_id, prod_code, prod_name, prod_img,
prod_desc, prod_price ) VALUES(?,?,?,?,?)";
$postStmt = $mysqli->prepare($postQuery);
//bind paramaters
$src = $postStmt->bind_param('ssssss', $prod_id, $prod_code, $prod_name, $prod_img,
$prod_desc, $prod_price);
$postStmt->execute();
//declare a variable which will be passed to alert function
if ($postStmt) {
    $success = "Product Added" && header("refresh:1; url=add_product.php");
} else {
    $err = "Please Try Again Or Try Later";
}
}
}
require_once('partials/_head.php');
?>

```

```

<body>
<!-- Sidenav -->
<?php
require_once('partials/_sidebar.php');
?>
<!-- Main content -->
<div class="main-content">
<!-- Top navbar -->
<?php
require_once('partials/_topnav.php');
?>
<!-- Header -->
<div style="background-image: url(assets/img/theme/restro00.jpg); background-size: cover;"
class="header pb-8 pt-5 pt-md-8">
<span class="mask bg-gradient-dark opacity-8"></span>
<div class="container-fluid">
<div class="header-body">
</div>
</div>
</div>
<!-- Page content -->
<div class="container-fluid mt--8">
<!-- Table -->

```



```

<div class="row">
  <div class="col">
    <div class="card shadow">
      <div class="card-header border-0">
        <h3>Please Fill All Fields</h3>
      </div>
      <div class="card-body">
        <form method="POST" enctype="multipart/form-data">
          <div class="form-row">
            <div class="col-md-6">
              <label>Product Name</label>
              <input type="text" name="prod_name" class="form-control">
              <input type="hidden" name="prod_id" value="<?php echo $prod_id; ?>"
class="form-control">
            </div>
            <div class="col-md-6">
              <label>Product Code</label>
              <input type="text" name="prod_code" value="<?php echo $alpha; ?>-<?php echo
$beta; ?>" class="form-control" value="">
            </div>
          </div>
          <hr>
          <div class="form-row">
            <div class="col-md-6">
              <label>Product Image</label>
              <input type="file" name="prod_img" class="btn btn-outline-success form-control"
value="">
            </div>
            <div class="col-md-6">
              <label>Product Price</label>
              <input type="text" name="prod_price" class="form-control" value="">
            </div>
          </div>
          <hr>
          <div class="form-row">
            <div class="col-md-12">
              <label>Product Description</label>
              <textarea rows="5" name="prod_desc" class="form-control" value=""></textarea>
            </div>
          </div>
          <br>
          <div class="form-row">
            <div class="col-md-6">
              <input type="submit" name="addProduct" value="Add Product" class="btn btn-
success" value="">
            </div>
          </div>
        </form>
      </div>
    </div>
  </div>
</div>

```

```

        </div>
    </div>
    <!-- Footer -->
    <?php
    require_once('partials/_footer.php');
    ?>
</div>
</div>
<!-- Argon Scripts -->
<?php
require_once('partials/_scripts.php');
?>
</body>

</html>

```

Dashboard:

```

<?php
session_start();
include('config/config.php');
include('config/checklogin.php');
check_login();
require_once('partials/_head.php');
require_once('partials/_analytics.php');
?>

```

```

<body>

```

```

    <!-- Sidenav -->
    <?php
    require_once('partials/_sidebar.php');
    ?>
    <!-- Main content -->
    <div class="main-content">
        <!-- Top navbar -->
        <?php
        require_once('partials/_topnav.php');
        ?>
        <!-- Header -->
        <div style="background-image: url(assets/img/theme/restro00.jpg); background-size: cover;"
class="header pb-8 pt-5 pt-md-8">
            <span class="mask bg-gradient-dark opacity-8"></span>
            <div class="container-fluid">
                <div class="header-body">
                    <!-- Card stats -->
                    <div class="row">
                        <div class="col-xl-3 col-lg-6">
                            <div class="card card-stats mb-4 mb-xl-0">
                                <div class="card-body">

```

```

<div class="row">
  <div class="col">
    <h5 class="card-title text-uppercase text-muted mb-0">Customers</h5>
    <span class="h2 font-weight-bold mb-0"><?php echo $customers; ?></span>
  </div>
  <div class="col-auto">
    <div class="icon icon-shape bg-danger text-white rounded-circle shadow">
      <i class="fas fa-users"></i>
    </div>
  </div>
</div>
</div>
</div>
</div>
</div>

<div class="col-xl-3 col-lg-6">
  <div class="card card-stats mb-4 mb-xl-0">
    <div class="card-body">
      <div class="row">
        <div class="col">
          <h5 class="card-title text-uppercase text-muted mb-0">Products</h5>
          <span class="h2 font-weight-bold mb-0"><?php echo $products; ?></span>
        </div>
        <div class="col-auto">
          <div class="icon icon-shape bg-primary text-white rounded-circle shadow">
            <i class="fas fa-utensils"></i>
          </div>
        </div>
      </div>
    </div>
  </div>
</div>
</div>
</div>

<div class="col-xl-3 col-lg-6">
  <div class="card card-stats mb-4 mb-xl-0">
    <div class="card-body">
      <div class="row">
        <div class="col">
          <h5 class="card-title text-uppercase text-muted mb-0">Orders</h5>
          <span class="h2 font-weight-bold mb-0"><?php echo $orders; ?></span>
        </div>
        <div class="col-auto">
          <div class="icon icon-shape bg-warning text-white rounded-circle shadow">
            <i class="fas fa-shopping-cart"></i>
          </div>
        </div>
      </div>
    </div>
  </div>
</div>
</div>
</div>
</div>
</div>
</div>

```

```

<div class="card card-stats mb-4 mb-xl-0">
  <div class="card-body">
    <div class="row">
      <div class="col">
        <h5 class="card-title text-uppercase text-muted mb-0">Sales</h5>
        <span class="h2 font-weight-bold mb-0">₹<?php echo $sales; ?></span>
      </div>
      <div class="col-auto">
        <div class="icon icon-shape bg-green text-white rounded-circle shadow">
          <i class="fas fa-rupee-sign"></i>
        </div>
      </div>
    </div>
  </div>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
</div>
<!-- Page content -->
<div class="container-fluid mt--7">
  <div class="row mt-5">
    <div class="col-xl-12 mb-5 mb-xl-0">
      <div class="card shadow">
        <div class="card-header border-0">
          <div class="row align-items-center">
            <div class="col">
              <h3 class="mb-0">Recent Orders</h3>
            </div>
            <div class="col text-right">
              <a href="orders_reports.php" class="btn btn-sm btn-primary">See all</a>
            </div>
          </div>
        </div>
      </div>
    </div>
    <div class="table-responsive">
      <!-- Projects table -->
      <table class="table align-items-center table-flush">
        <thead class="thead-light">
          <tr>
            <th class="text-success" scope="col"><b>Code</b></th>
            <th scope="col"><b>Customer</b></th>
            <th class="text-success" scope="col"><b>Product</b></th>
            <th scope="col"><b>Unit Price</b></th>
            <th class="text-success" scope="col"><b>Qty</b></th>
            <th scope="col"><b>Total</b></th>
            <th scope="col"><b>Status</b></th>
            <th class="text-success" scope="col"><b>Date</b></th>
          </tr>
        </thead>
      </table>
    </div>
  </div>

```

```

<tbody>
  <?php
    $ret = "SELECT * FROM rpos_orders ORDER BY `rpos_orders`.`created_at` DESC
LIMIT 7 ";
    $stmt = $mysqli->prepare($ret);
    $stmt->execute();
    $res = $stmt->get_result();
    while ($order = $res->fetch_object()) {
      $total = ($order->prod_price * $order->prod_qty);

    ?>
    <tr>
      <th class="text-success" scope="row"><?php echo $order->order_code; ?></th>
      <td><?php echo $order->customer_name; ?></td>
      <td class="text-success"><?php echo $order->prod_name; ?></td>
      <td>₹<?php echo $order->prod_price; ?></td>
      <td class="text-success"><?php echo $order->prod_qty; ?></td>
      <td>₹<?php echo $total; ?></td>
      <td><?php if ($order->order_status == ") {
        echo "<span class='badge badge-danger'>Not Paid</span>";
      } else {
        echo "<span class='badge badge-success'>$order->order_status</span>";
      } ?></td>
      <td class="text-success"><?php echo date('d/M/Y g:i', strtotime($order-
>created_at)); ?></td>
    </tr>
  <?php } ?>
</tbody>
</table>
</div>
</div>
</div>
</div>

<div class="row mt-5">
  <div class="col-xl-12">
    <div class="card shadow">
      <div class="card-header border-0">
        <div class="row align-items-center">
          <div class="col">
            <h3 class="mb-0">Recent Payments</h3>
          </div>
          <div class="col text-right">
            <a href="payments_reports.php" class="btn btn-sm btn-primary">See all</a>
          </div>
        </div>
      </div>
    </div>
    <div class="table-responsive">
      <!-- Projects table -->
      <table class="table align-items-center table-flush">

```

```

<thead class="thead-light">
  <tr>
    <th class="text-success" scope="col"><b>Code</b></th>
    <th scope="col"><b>Amount</b></th>
    <th class="text-success" scope="col"><b>Order Code</b></th>
  </tr>
</thead>
<tbody>
  <?php
    $ret = "SELECT * FROM          rpos_payments          ORDER BY
`rpos_payments`.`created_at` DESC LIMIT 7 ";
    $stmt = $mysqli->prepare($ret);
    $stmt->execute();
    $res = $stmt->get_result();
    while ($payment = $res->fetch_object()) {
      ?>
      <tr>
        <th class="text-success" scope="row">
          <?php echo $payment->pay_code; ?>
        </th>
        <td>
          ₹<?php echo $payment->pay_amt; ?>
        </td>
        <td class="text-success">
          <?php echo $payment->order_code; ?>
        </td>
      </tr>
    <?php } ?>
  </tbody>
</table>
</div>
</div>
</div>
</div>
<!-- Footer -->
<?php require_once('partials/_footer.php'); ?>
</div>
</div>
<!-- Argon Scripts -->
<?php
require_once('partials/_scripts.php');
?>
</body>

</html>

```

CHAPTER 7

TESTING

TESTING

Software Testing:

Software Testing is a method to check whether the actual software product matches expected requirements and to ensure that software product is Defect free. It involves execution of software/system components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps or missing requirements in contrast to actual requirements.

Software Testing is Important because if there are any bugs or errors in the software, it can be identified early and can be solved before delivery of the software product. Properly tested software product ensures reliability, security and high performance which further results in time saving, cost effectiveness and customer satisfaction.

Alpha Testing:

Alpha testing is a type of testing that is done on an application towards the end of a development process when the product is almost in a usable state. This type of testing does not involve functional testing on the application. Instead, it is a user testing on the application in order to understand the user behavior and experience on the application. Normally this test is performed by test engineers, employees and sometimes friends / family members with the aim of trying to emulate around 80% of the customers. While these users test and give their feedback, the development team observes the behavior to check for design issues in the application. Alpha testing is mainly conducted to unveil bugs that might arise due to abrupt errors created by the users, validate the quality state of the software in minimal time and finally propound a build that procures the specifications required. Once this test is executed properly, the software is ready for the next stage, i.e., the beta test. Alpha testing has two phases.

Black Box Testing:

Black box testing refers to any type of software test that examines an application without knowledge of the internal design, structure, or implementation of the software project. Black box testing can be performed at multiple levels, including unit testing, integration testing, system testing, or acceptance testing.

I. Unit Testing: -

- Unit testing is essentially for the verification of the code produced during the coding phase and the goal is test the internal logic of the module/program. In the Generic code project, the unit testing is done during coding phase of data entry forms whether the functions are working properly or not. In this phase all the drivers are tested they are rightly connected or not.

II. Integration Testing: -

- All the tested modules are combined into sub systems, which are then tested. The goal is to see if the modules are properly integrated, and the emphasis being on the testing interfaces between the modules. In the generic code integration testing is done mainly on table creation module and insertion module.

VALIDATION TESTING

- This testing concentrates on confirming that the software is error-free in all respects. All the specified validations are verified and the software is subjected to hard-core testing. It also aims at determining the degree of deviation that exists in the software designed from the specification; they are listed out and are corrected.

SYSTEM TESTING

- This testing is a series of different tests whose primary is to fully exercise the computer-based system.
- This involves, implementing the system in a simulated production environment and testing it.

White Box Testing:

White Box Testing is software testing technique in which internal structure, design and coding of software are tested to verify flow of input-output and to improve design, usability and security. In white box testing, code is visible to testers so it is also called Clear box testing, open box testing, transparent box testing, Code-based testing and Glass box testing.

Beta Testing:

Beta testing is one of the final steps in your software development lifecycle (SDLC) before a product goes live. Also referred to as user testing or customer validation, beta testing aims to ensure that end users are satisfied with a software product before you make it generally available (GA). While beta tests want to catch any software bugs and errors that have snuck through the testing process, it is more about understanding and improving the product's full end user experience before it becomes GA. That means thoroughly investigating the experience flow and understanding any pain points that will hinder enjoyment of the experience for your end user.

Positive Test Cases:

- The positive flow of the functionality must be considered
- Valid inputs must be used for testing
- Must have the positive perception to verify whether the requirements are justified.

Negative Test Cases:

- Must have negative perception
- Invalid inputs must be used for test.

Feasibility Study:

- The next step in analysis is to verify the feasibility of the proposed system. "All projects are feasible given unlimited resources and infinite time ". But in reality, both resources and time are scarce. Project should confirm to time bounce and should be optimal in their consumption of resources. This place a constant is approval of any project.

- Feasibility has applied to the following areas:

Technical feasibility

Operational feasibility

Economic feasibility

TECHNICAL FEASIBILITY:

- To determine whether the proposed system is technically feasible, we should take into consideration the technical issues involved behind the system.

OPERATIONAL FEASIBILITY:

- To determine the operational feasibility of the system we should take into consideration the awareness level of the users. This system is operational feasible since the users are familiar with the technologies and hence there is no need to gear up the personnel to use system. Also, the system is very friendly and to use.

ECONOMIC FEASIBILITY:

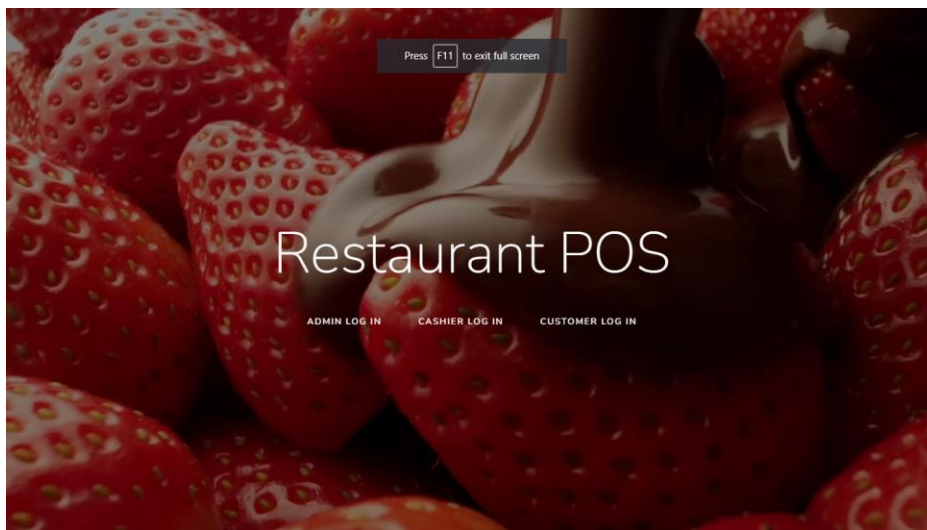
To decide whether a project is economically feasible, we have to consider various factors as:

- Cost benefit analysis
- Long-term returns
- Maintenance costs

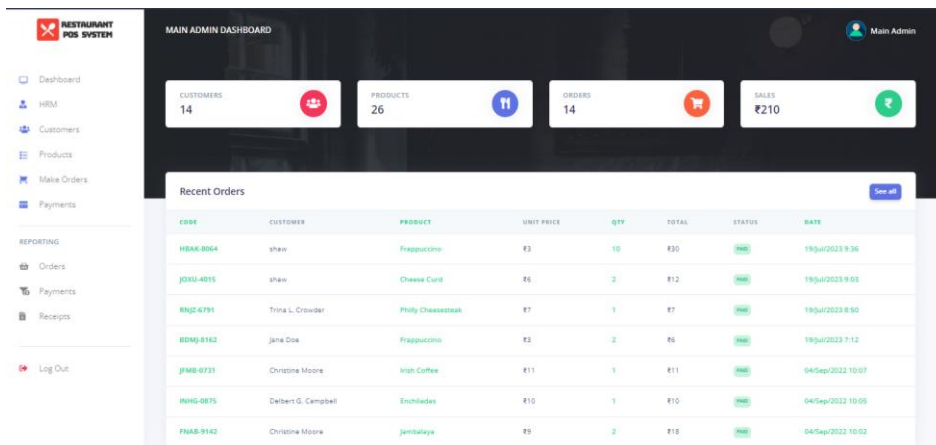
CHAPTER 8

SCREENSHOTS

Login Page:



Admin Dashboard:



Product's Page:

 The product page shows a sidebar with navigation links: Dashboard, HRM, Customers, Products, Make Orders, Payments, Reporting (Orders, Payments, Receipts), and Log Out. The main area is titled "MAIN ADMIN DASHBOARD" and features an "Add New Product" button. Below is a table of existing products.

IMAGE	PRODUCT CODE	NAME	PRICE	ACTIONS
	FCRU-8762	Philly Cheesesteak	₹ 7	Delete Update
	JRZU-9518	Spaghetti Bolognese	₹ 15	Delete Update
	QZHS-0391	Reuben Sandwich	₹ 8	Delete Update
	ICFU-1406	Submarine Sandwich	₹ 8	Delete Update
	CEWV-9438	Cheeseburger	₹ 3	Delete Update
	UJAK-9514	Jambalaya	₹ 9	Delete Update
	SVQP-3710	Buffalo Wings	₹ 11	Delete Update
	HIFK-5346	Enchiladas	₹ 10	Delete Update

Order Page:

MAIN ADMIN DASHBOARD Main Admin

Press **F11** to exit full screen

Orders Records

CODE	CUSTOMER	PRODUCT	UNIT PRICE	#	TOTAL PRICE	STATUS	DATE
HBAR-0064	shaw	Frappuccino	₹ 3	10	₹ 30	paid	19/jul/2023 9:36
JOKU-4015	shaw	Cheese Curd	₹ 6	2	₹ 12	paid	19/jul/2023 9:03
RNGJ-6791	Trina L. Crowder	Philly Cheesesteak	₹ 7	1	₹ 7	paid	19/jul/2023 8:50
BDMJ-8162	Jane Doe	Frappuccino	₹ 3	2	₹ 6	paid	19/jul/2023 7:12
JFMB-0731	Christine Moore	Irish Coffee	₹ 11	1	₹ 11	paid	04/Sep/2022 10:07
INHG-0875	Delbert G. Campbell	Enchiladas	₹ 10	1	₹ 10	paid	04/Sep/2022 10:05
FNAB-9142	Christine Moore	Jambalaya	₹ 9	2	₹ 18	paid	04/Sep/2022 10:02
EJKA-4501	Christine Moore	Corn Dogs	₹ 4	2	₹ 8	paid	04/Sep/2022 10:01
AESH-0653	Ana J. Browne	Turkish Coffee	₹ 8	1	₹ 8	paid	03/Sep/2022 6:56
OTEV-8532	Louise R. Holloman	Spaghetti Bolognese	₹ 15	1	₹ 15	paid	03/Sep/2022 6:43
ZPKD-6951	Julie R. Martin	Pulled Pork	₹ 8	2	₹ 16	paid	03/Sep/2022 6:42
COXP-6018	Melody E. Hance	Buffalo Wings	₹ 11	2	₹ 22	paid	03/Sep/2022 5:47
QOEH-8613	Trina L. Crowder	Cheeseburger	₹ 3	3	₹ 9	paid	03/Sep/2022 5:32

Receipts Page:

MAIN ADMIN DASHBOARD Main Admin

Paid Orders

CODE	CUSTOMER	PRODUCT	UNIT PRICE	QTY	TOTAL PRICE	DATE	ACTIONS
HBAR-0064	shaw	Frappuccino	₹ 3	10	₹ 30	19/jul/2023 9:36	Print Receipt
JOKU-4015	shaw	Cheese Curd	₹ 6	2	₹ 12	19/jul/2023 9:03	Print Receipt
RNGJ-6791	Trina L. Crowder	Philly Cheesesteak	₹ 7	1	₹ 7	19/jul/2023 8:50	Print Receipt
BDMJ-8162	Jane Doe	Frappuccino	₹ 3	2	₹ 6	19/jul/2023 7:12	Print Receipt
JFMB-0731	Christine Moore	Irish Coffee	₹ 11	1	₹ 11	04/Sep/2022 10:07	Print Receipt
INHG-0875	Delbert G. Campbell	Enchiladas	₹ 10	1	₹ 10	04/Sep/2022 10:05	Print Receipt
FNAB-9142	Christine Moore	Jambalaya	₹ 9	2	₹ 18	04/Sep/2022 10:02	Print Receipt
EJKA-4501	Christine Moore	Corn Dogs	₹ 4	2	₹ 8	04/Sep/2022 10:01	Print Receipt
AESH-0653	Ana J. Browne	Turkish Coffee	₹ 8	1	₹ 8	03/Sep/2022 6:56	Print Receipt
OTEV-8532	Louise R. Holloman	Spaghetti Bolognese	₹ 15	1	₹ 15	03/Sep/2022 6:43	Print Receipt
ZPKD-6951	Julie R. Martin	Pulled Pork	₹ 8	2	₹ 16	03/Sep/2022 6:42	Print Receipt
COXP-6018	Melody E. Hance	Buffalo Wings	₹ 11	2	₹ 22	03/Sep/2022 5:47	Print Receipt

Cashier Dashboard:

CASHIER TREVOR DASHBOARD Cashier Trevor

SUMMARY

- CUSTOMERS: 14
- PRODUCTS: 26
- ORDERS: 14
- SALES: ₹210

Recent Orders [See all](#)

CODE	CUSTOMER	PRODUCT	UNIT PRICE	QTY	TOTAL	STATUS	DATE
HBAR-0064	shaw	Frappuccino	₹ 3	10	₹ 30	paid	19/jul/2023 9:36
JOKU-4015	shaw	Cheese Curd	₹ 6	2	₹ 12	paid	19/jul/2023 9:03
RNGJ-6791	Trina L. Crowder	Philly Cheesesteak	₹ 7	1	₹ 7	paid	19/jul/2023 8:50
BDMJ-8162	Jane Doe	Frappuccino	₹ 3	2	₹ 6	paid	19/jul/2023 7:12
JFMB-0731	Christine Moore	Irish Coffee	₹ 11	1	₹ 11	paid	04/Sep/2022 10:07
INHG-0875	Delbert G. Campbell	Enchiladas	₹ 10	1	₹ 10	paid	04/Sep/2022 10:05
FNAB-9142	Christine Moore	Jambalaya	₹ 9	2	₹ 18	paid	04/Sep/2022 10:02

Recent Payments [See all](#)

CODE	AMOUNT	ORDER CODE
------	--------	------------

Customer's Dashboard:

SHAW DASHBOARD

AVAILABLE ITEMS: 26

TOTAL ORDERS: 2

TOTAL MONEY SPEND: ₹67

Recent Orders

CODE	CUSTOMER	PRODUCT	UNIT PRICE	#	TOTAL PRICE	STATUS	DATE
PUOG-3152	shaw	Irish Coffee	₹11	5	₹55	Paid	26/Jul/2023 4:55
ZYUO-1543	shaw	Cheese Curd	₹6	2	₹12	Paid	26/Jul/2023 4:55

My Recent Payments

CODE	AMOUNT	ORDER CODE
pefgr45611	₹55	PUOG-3152
pefgr45610	₹12	ZYUO-1543

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Profile View:

SHAW DASHBOARD

Hello shaw

This is your profile page. You can customize your profile as you want And also change password too

My account

USER INFORMATION

Full Name: shaw Phone Number: 9600775529

Email address: shawprns@gmail.com

Submit

CHANGE PASSWORD

Old Password

Receipt Print:

Food Lounge
GSTIN: #123456789
RR Layout, Chikkabanavara
(+91) 123-456-4556

Date: 26/Jul/2023 4:55
Receipt #: PUOG-3152

Receipt

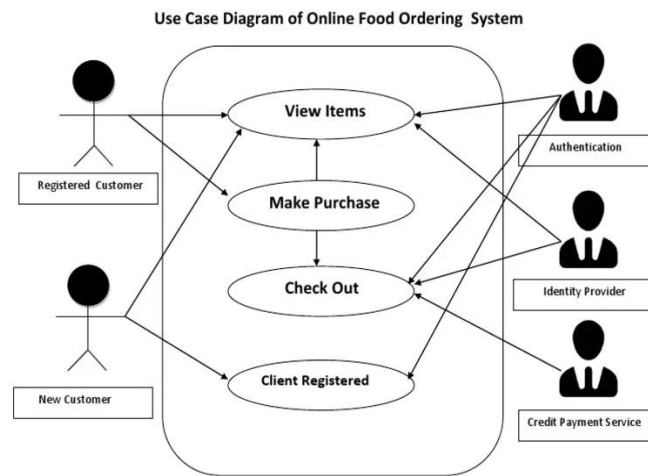
Item	Quantity	Unit Price	Total
Irish Coffee	5	₹11	₹55
		Subtotal:	₹55
		Total:	₹55

Print

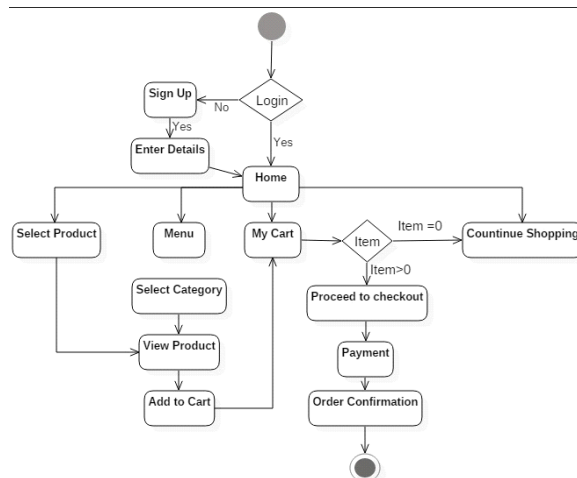
CHAPTER 9

ANALYSIS AND DESIGN

Use Case Diagram:



Activity Diagram (ADMIN):



CHAPTER 10

CONCLUSION

CONCLUSION

The development and implementation of an Online food ordering Point of Sale (POS) system is a crucial tool for restaurants, cafes, and other food businesses that offer online ordering and delivery services. The POS system helps streamline and manage the entire order and payment process, enhancing the overall efficiency and customer experience. Here are some key points to consider:

- **Efficiency:** An online food ordering POS system allows customers to place their orders conveniently through a website or mobile app. The system automates the order processing, reducing manual errors and saving time for both customers and staff.
- **Order Management:** The POS system efficiently manages incoming orders, ensuring they are accurately recorded and sent to the kitchen for preparation. It helps track order status and provides real-time updates to customers, improving order accuracy and customer satisfaction.
- **Menu Management:** The POS system enables easy management of the menu, including adding, updating, and removing items. This ensures that customers have access to the latest menu options and pricing.
- **Payment Processing:** With integrated payment processing, the POS system allows customers to make secure online payments. It supports various payment methods, such as credit/debit cards, digital wallets, and online banking, making transactions convenient for customers.
- **Reporting and Analytics:** Online food ordering POS systems offer robust reporting and analytics capabilities. They provide insights into sales performance, popular menu items, peak hours, and customer preferences. These analytics help businesses make data-driven decisions to improve operations and profitability.
- **Integration:** A modern POS system can integrate with other business tools such as accounting software, delivery platforms, and CRM systems. Seamless integration improves overall efficiency and data synchronization across different systems.
- **Customer Support:** Many POS system providers offer customer support and technical assistance. A reliable support team helps businesses address any issues promptly, ensuring smooth system operations.

So, an online food ordering POS system is an essential tool for food businesses looking to optimize their operations, provide exceptional customer service, and stay competitive in the digital age. Implementing a well-designed and feature-rich POS system can lead to increased sales, improved efficiency, and enhanced customer satisfaction.

CHAPTER 11

FUTURE ENHANCEMENT

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In the future, there are several potential enhancements that can be implemented in an online examination system to improve its functionality, user experience, and security. Here are some ideas:

- **Remote Proctoring:** Implement advanced remote proctoring techniques to ensure the integrity of the examination process. This can include features such as facial recognition, AI-based behavior analysis, and screen monitoring to detect any suspicious activities during the exam.
- **Biometric Authentication:** Integrate biometric authentication methods such as fingerprint or iris scanning to ensure the identity of the test taker and prevent impersonation.
- **AI-based Automated Grading:** Utilize artificial intelligence and machine learning algorithms to automate the grading process for objective questions. This can significantly reduce the time and effort required by instructors in evaluating exams.
- **Adaptive Testing:** Implement adaptive testing techniques where the difficulty level of the questions adjusts based on the student's performance. This personalized approach ensures that each student is challenged appropriately and provides a more accurate assessment of their knowledge.
- **Virtual Reality (VR) Exams:** Incorporate virtual reality technology to create immersive exam environments, particularly for subjects that require practical or hands-on assessments. VR simulations can provide a more realistic testing experience.
- **Collaboration Tools:** Integrate collaborative features that allow students to work together on group projects or assignments. This can include real-time document editing, video conferencing, and shared whiteboards.
- **Enhanced Analytics and Reporting:** Provide comprehensive analytics and reporting capabilities for instructors, allowing them to analyze student performance, identify areas of improvement, and generate detailed reports for individual students or the entire class.
- **Mobile Accessibility:** Develop mobile applications or responsive web interfaces that allow students to take exams on their smartphones or tablets, providing flexibility and convenience.

- **Integration with Learning Management Systems (LMS):** Seamlessly integrate the online examination system with popular Learning Management Systems, enabling streamlined management of courses, assessments, and student data.
- **Blockchain Technology:** Implement of blockchain technology to ensure the security, immutability, and transparency of exam results and certifications. This can help prevent fraud and maintain the integrity of the certification process. Remember, these are just some possibilities for future enhancements. The actual implementation will depend on technological advancements and the specific needs of the educational institutions or organizations using the online examination system.

CHAPTER 12

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