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Project Report

On

TradeMitraa

Partial Fulfilment of the Requirement of MCA 2nd Year.



Session: 2022-2023

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DEPARTMENT OF IT & CA JECRC UNIVERSITY, JAIPUR 2023

About the Company



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From designing simple websites to developing robust Android applications or crafting the most effective digital marketing strategy with SEO, AdWords, and social media at the core, we are the perfect web design company in India for all kinds of businesses.

CERTIFICATE

This is certified that the project entitled "Trademitraa" submitted by Student Abhay Sharma (21MCAN120) is a satisfactory account of the Bonafede work done under our supervision and is recommended for partial fulfillment for the award of the degree Masters of Computer Application in JECRC University, Jaipur (Raj)

Date: 11-04-2023

Faculty Internship Guide: Project Guide:

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Abhay Sharma (21MCAN120)

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Introduction

Multi-Level Marketing (MLM) is a marketing strategy in which a company incentivizes its distributors or salespeople to recruit new distributors or customers by paying them a commission on the sales they generate. An MLM website is a platform designed for companies to manage their MLM business operations and provide a user-friendly interface for their distributors and customers to interact with the business.

Core PHP is a server-side scripting language that is widely used for web development. It provides a powerful set of tools for building dynamic web applications and is highly customizable. To build an MLM website using core PHP, developers can use various frameworks such as Laravel, CodeIgniter, or Yii, which provide pre-built features and functionalities to accelerate development.

An MLM website built using core PHP can have various features such as a dashboard for managing the business, user registration and login, product management, commission tracking, genealogy tree, and more. The website can also incorporate payment gateways and integrate with third-party tools to provide a seamless user experience.

Overall, building an MLM website using core PHP can be a complex process that requires significant expertise in web development, MLM business operations, and security. Therefore, it is important to hire a team of experienced developers who can deliver a high-quality and secure MLM website.

Software Requirements Specification (SRS)

A software requirements specification is a document that captures complete description about how the system is expected to perform. It is usually signed off at the end of requirements engineering phase.

Product perspective

The software product is a Web application. The application will be made up of two parts, one administrator who has all the rights and the other user who has limited rights to handle the application. The two users of the system, namely the Service Manager (Admin/owner) and Customers (buyer/seller) interact with the system in different ways.

Product Functions

First of all it will authenticate the user whether he is Admin or User the unauthorized person can't get access to the application.

The Admin will be able to Add, delete, and modify Product details. He can also Add, delete and modify Service Request made by Customers. He can use this application to check all reports related to Product Sell, and assign work order as well as he can manipulate the data of Repair Request.

The User has some less function compare to Admin. He will be able to Submit Service Requests, Update Own Profile etc. He can check request status.

Safety Requirements

All the data will be saved to database for safety purpose so there will be no data loss. These data can be accessed only by an authorized person so data theft is also not possible in this application.

Security Requirements

For preventing unauthorized access to the application, this application have login feature so only granted user can access with defined rights.

Data Gathering

Data collection is the systematic approach to gathering and measuring information from a variety of sources to get a complete and accurate picture of an area of interest. Data collection enables a person or organization to answer relevant questions, evaluate outcomes and make predictions about future probabilities and trends. Accurate data collection is essential to maintaining the integrity of research, making informed business decisions and ensuring quality assurance.

Feasibility study

Feasibility study means to check whether the project is feasible or not, that means possible or not. Some feasibility study regarding this project is as follows: -

Economic Feasibility

The project has shown the economic feasibility by the study of the fact that by using this software the increased number of the customers can be given service effectively and efficiently and can save a lot time and saving time means saving money. The cost and benefit analysis has shown that cost that have incurred in developing the project is less than the benefits that the project is going to provide once it is developed, so this project has passed the feasibility test.

Technical Feasibility

Technical feasibility centers on the existing computer system (Hardware, Software etc.) and to what extent it supports the existing system. As the existing system computer system is viable so there is no matter of technical feasibility that is the system is technically feasible. In this type of feasibility study it is checked whether there is a need of new hardware/software or not. What are the basic requirements of the project? If there is need then how it can be fulfilled. In this context, this project doesn't need any special hardware or software.

Behavioral Feasibility

The User also interested in this project, as it will help them to do work with ease and efficiently without complexity, so they supported the development of this project with full enthusiasm. This shows the behavioral feasibility of the project.

Time Feasibility

It is the determination of whether a proposed project can be implemented fully within stipulated time frame. The project was decided to be done in three months and was thought to be feasible

Operational Feasibility

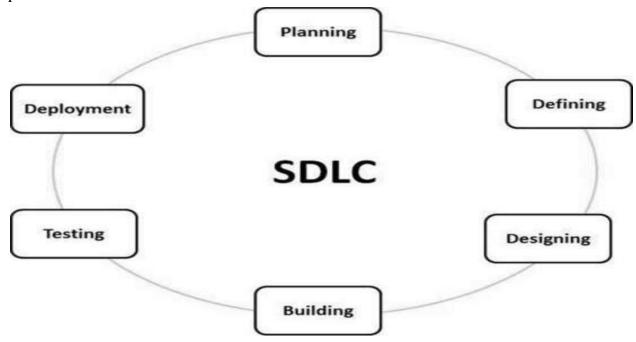
In this feasibility study it is determined whether there is need of well qualified operator or simple user. Is there need to train the operator or not? This project is supporting the Graphical User Interface; hence operating this project is so simple. Even a person who has a little knowledge of computer can easily handle this well. There is no need of trained operator.

Software Process Model

The Software Process Models are the various processes or methodologies that are being selected for the development of the project depending on the project's aims and goals. There are many development life cycle models that have been developed in order to achieve different required objectives. The models specify the various stages of the process and the order in which they are carried out.

The selection of the model has very high impact on the testing that is carried out. It will define the what, where and when of our planned testing, influence regression testing, and largely determines which test techniques to use.

Choosing right model for developing the software product or application is very important. Based on the model the development and testing processes are carried out. A Process Model describes the sequence of phases for the entire lifetime of a product. Therefore it is sometimes also called Software Life Cycle. This covers everything from the initial commercial idea until the final de-installation or disassembling of the product after its use.



In order to develop the project "B2c" we have adopted the Iterative Enhancement Model also known as Incremental Model. This model removes the shortcoming of waterfall model. Since many facts of this system are already known. It is not a new concept and hence no research is required. A working version can be easily created and hence the system can start working. Rest of the functionalities can be implemented in the next iteration and can be delivered later. As the requirement analysis is also not required. It not being a new technology risk involved is also less. So one need not perform detailed risk analysis. If redevelopment Admin is less than development can be started with less number of people and in next increments others can be involved. As this model combines the advantage of waterfall model and prototyping, clients are always aware of the product being delivered and can always suggest changes and enhancements and can get them implemented. As less amount of customer communication is required one need not apply spiral model in which all types of analysis is done in detail. As the deadline is affordable one need not to for Rapid Application Development model. Iterative enhancement model is useful when less manpower is available for software development and the release deadlines are specified. It is best suited for in house product development, where it is ensured that the user has something to start with. The complete product is divided into releases and the developer delivers the product release by release.

Tools and Environment

Hardware Requirements

Processor	1.6 GHz or Faster Processor
RAM	1.5 GB
Disk Space	4GB of Available Hard Disk
Graphic	DirectX 9-Capable Video Card
Display	1024 X 768 or Higher Resolution

Software Requirements

Operating System	Windows 10
Front End	HTML, CSS, JS
Frameworks/Library	Bootstrap 5, FontAwesome, Google Font
Back End	PHP
Text Editor	Visual Studio Code
Database	MySql
Web Browser	Google Chrome

Software Description

Visual Studio Code: -

Visual Studio Code was announced on April 29, 2015 by Microsoft at the 2015 Build conference. A Preview build was released shortly thereafter.

On November 18, 2015, Visual Studio Code was released under the MIT License and its source code posted to GitHub. Extension support was also announced.

On April 14, 2016, Visual Studio Code graduated the public preview stage and was released to web. Visual Studio Code is a source code editor developed by Microsoft for Windows, Linux and macOS. It includes support for debugging, embedded Git control, syntax highlighting, intelligent code completion, snippets, and code refactoring. It is also customizable, so users can change the editor's theme, keyboard shortcuts, and preferences. It is free and open-source, although the official download is under a proprietary license..

HTML: -

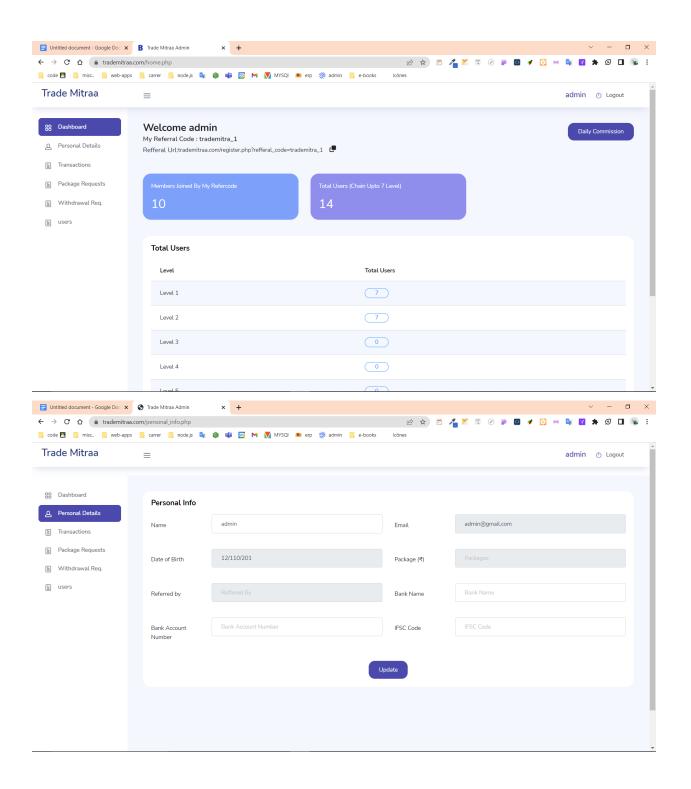
Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web.

Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

CSS: -

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like 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, and reduce complexity and repetition in the structural content.



PHP:

PHP, which stands for Hypertext Preprocessor, is a server-side scripting language that is widely used for web development. PHP is an open-source language that has gained popularity due to its versatility, ease of use, and extensive community support.

PHP can be used to develop various types of web applications, including content management systems, e-commerce websites, social networking platforms, and more. It is known for its ability to handle dynamic content, interact with databases, and generate HTML code dynamically.

PHP can be used with various frameworks such as Laravel, CodeIgniter, Yii, and more, which provide pre-built features and functionalities to accelerate development. Additionally, PHP can also be used with various databases such as MySQL, PostgreSQL, and Oracle.

PHP is often used in combination with other web technologies such as HTML, CSS, and JavaScript to create dynamic and interactive web pages. It is also compatible with various operating systems such as Windows, Linux, and macOS.

Overall, PHP is a powerful and flexible language that can be used for a wide range of web development projects. It is well-supported by a large and active community of developers, making it easy to find resources and get help when needed.

MySql:

MySQL is a popular open-source relational database management system (RDBMS) that is widely used for web development. It is a fast, reliable, and scalable database that can be used for a wide range of applications, from small websites to large enterprise systems.

MySQL uses a client-server architecture and supports multiple users and concurrent connections. It provides a variety of features and functionalities, including data manipulation, transaction management, and security.

MySQL is known for its ease of use, performance, and compatibility with various operating systems, programming languages, and platforms. It is compatible with various programming languages such as PHP, Java, and Python, making it easy to integrate with web applications.

MySQL can also be used with various tools and frameworks such as phpMyAdmin, MySQL Workbench, and Laravel. It provides various storage engines such as InnoDB, MyISAM, and Memory, each with different features and performance characteristics.

Overall, MySQL is a powerful and flexible database management system that is well-suited for web development projects of all sizes. Its ease of use, performance, and compatibility with various platforms and programming languages make it a popular choice for web developers.

Testing

Software testing is a process used to identify the correctness, completeness and quality of developed computer software. It includes a set of activities conducted with the intent of finding errors in software so that it could be corrected before the product is released to the end users. In other word software testing is an activity to check that the software system is defect free.

Software testing is primarily a broad process that is composed of several interlinked processes. The primary objective of software testing is to measure software health along with its completeness in terms of core requirements. Software testing involves examining and checking software through different testing processes.

The objectives of these processes can include:

- Completeness Verifying software completeness in regards to functional/business requirements
- Errors Free Identifying technical bugs/errors and ensuring the software is error-free
- Stability Assessing usability, performance, security, localization, compatibility and installation

This phase determine the error in the project. If there is any error then it must be removed before delivery of the project.

Type of Testing

For determining errors various types of test action are performed: -

Unit Testing: -

Unit testing focuses verification effort on the smallest unit of software design – the module. Using the detail design description as a guide, important control paths are tested to uncover errors within the boundary of the module. The relative complexity of tests and the errors detected as a result is limited by the constrained scope established for unit testing. The unit test is always white box oriented, and the step can be conducted in parallel for multiple modules.

Unit testing is normally considered an adjunct to the coding step. After source level code has been developed, reviewed, and verified for correct syntax, unit test case design begins.

Integration Testing -

A level of the software testing process where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units.

System Testing: -

Software is only one element of a larger computer based system. Ultimately, software is incorporated with other system elements (e.g. new hardware, information), and a series of system integration and validation tests are conducted. Steps taken during software design and testing can greatly improve the probability of successful software integration in the larger system.

A classics system testing problem is "finger pointing". This occurs when a defect is uncovered, and one system element developer blames another for the problem. The

software engineer should anticipate potential interfacing problems and design error handling paths that test all information coming from other elements of the system, conduct a series of tests that simulate bad data or other potential errors at the software interface, record the results or tests to use as "evidence" if finger pointing does occur, participate in the planning and design of system test to ensure that software is adequately tested.

There are many types of system tests that are worthwhile for software-based systems:-

Usability Testing -

Usability Testing is a type of testing done from an end-user's perspective to determine if the system is easily usable.

Functionality testing -

Tests all functionalities of the software against the requirement.

Performance testing –

Performance testing is designed to test the run-time performance of software within the context of an integrated system

Security testing –

Security testing attempts to verify that protection mechanisms built into a system will protect it from improper penetration

Stress tests -

Stress tests are designed to confront programs with abnormal situations.

Conclusion

The Trademitraa in progress and it's various features are tested successfully by taking "Test Cases". It is user friendly, and has required options, which can be utilized by the user to perform the desired operations.

The Software is developed using HTML, CSS, JS, Bootstrap 5 as front end and Php, MySql as backend in windows environment.

The goals that are achieved by the software are:

- Simplification of the operations
- Less processing time and getting required information
- User friendly
- Portable and flexible for further enhancement

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The following reference has been used to develop the project "Online Service Management System":-

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