



PORTFOLIO MANAGEMENT SYSTEM

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ABSTRACT

This abstract presents the design and development of a Portfolio Management System (PMS) utilizing PHP and MySQL, offering a comprehensive solution for individuals and organizations to manage their investment portfolios efficiently. The system integrates essential functionalities such as portfolio creation, risk assessment, performance monitoring, and reporting, providing users with actionable insights to optimize their investment strategies.

The Portfolio Management System built with PHP and MySQL leverages web-based technologies to ensure accessibility across various devices and platforms. Users can securely log in to the system, allowing for personalized portfolio management based on their investment objectives and risk preferences.

INTRODUCTION

In today's dynamic financial landscape, effective management of investment portfolios is crucial for individuals, businesses, and financial institutions seeking to optimize returns and mitigate risks. The utilization of technology plays a pivotal role in streamlining portfolio management processes, providing stakeholders with the tools and insights necessary to make informed investment decisions. This introduction outlines the development and implementation of a Portfolio Management System (PMS) using PHP and MySQL, aimed at offering a robust and scalable solution for portfolio management.

The Portfolio Management System built with PHP and MySQL combines the power of web-based technologies and relational databases to create a comprehensive platform for portfolio management. PHP, a widely-used server-side scripting language, enables the development of dynamic and interactive web applications, while MySQL, a popular open-source relational database management system, provides a reliable and scalable database solution for storing and managing portfolio data.

This introduction will provide an overview of the key components and functionalities of the

Portfolio Management System, highlighting its role in facilitating portfolio creation, risk assessment, performance monitoring, and reporting. Additionally, it will emphasize the importance of leveraging PHP and MySQL to develop a secure, user-friendly, and feature-rich portfolio management solution that meets the diverse needs of investors and financial professionals alike.

MODULE DESCRIPTION

Admin:

At its core, the admin module offers user management capabilities, allowing administrators to create, modify, and deactivate user accounts as needed. This includes assigning roles and permissions to control access levels and privileges within the system, ensuring data security and integrity.

User:

The user module enables users to create and maintain their investment portfolios seamlessly. Through an intuitive web-based interface, users can input, update, and analyze various investment instruments, including stocks, bonds, mutual funds, and alternative assets. This allows users to track their investments in real-time and make informed decisions based on up-to-date portfolio information.

Education:

This module is designed to provide comprehensive educational materials, tutorials, and resources to empower users with the necessary expertise to make informed investment decisions. These resources are tailored to cater to users of varying levels of expertise, from novice investors to seasoned professionals.

project:

The module also offers features for tracking project performance and monitoring investment progress over time. Users can view key performance indicators, such as portfolio returns, volatility, and Sharpe ratio, to evaluate the success of their investment projects and make informed decisions for portfolio optimization.

Work:

The work module includes tools for transaction reconciliation, enabling users to match trade confirmations, reconcile cash balances, and resolve discrepancies between internal records and external statements. Users can perform automated reconciliations based on predefined criteria or manually reconcile transactions as needed, ensuring the accuracy and integrity of portfolio data.

Contact:

The contact module may include features for logging and tracking communication activities, including phone calls, emails, meetings, and notes. Users can record interactions with contacts, document important discussions or decisions, and maintain a comprehensive communication history for reference and follow-up purposes.

ABOUT THE TECHNOLOGY

PHP

PHP is a powerful server-side scripting language for creating dynamic and interactive websites. PHP widely used; free and efficient alternative to competitors such as soft's ASP.PHP is perfectly suited for Web development and can be embedded directly into the HTML code. The PHP syntax is similar to pearl and C.

PHP is open source that it is readily available and absolutely free. Stability, flexibility and speed are chief qualities that attract to choose PHP.PHP have multiple extensions and is extremely scalable.

SERVER SIDESCRIPTING

This server-side scripting is the most traditional and main target field for PHP. Programmer needs three things to make this work. Programmer need to run the web server,

with a connected PHP installation. Programmer can access the PHP program output with a web browser, viewing the PHP page through the server.

MySQL

MySQL is an open-source relational database management system (RDBMS), is developed, distributed and supported by MySQL. MySQL is a popular choice of database for use in web applications MySQL can be scaled by deploying it on more powerful hardware, such as a multi-processor server with gigabytes of memory. MySQL is easy to use, yet extremely powerful, secure, and scalable. And because of its small size and speed, it is the ideal database solution for Web sites.

EXISTING SYSTEM

The development of a portfolio management system using an existing system in VB.NET involves several key steps. Initially, a comprehensive understanding of the requirements is essential, achieved through stakeholder consultation and analysis. With the requirements defined, the design phase begins, outlining the system architecture, including database schema and user interface design. Development follows suit, where VB.NET is utilized to implement various modules and functionalities, including client management, investment tracking, and reporting mechanisms. Database connectivity is established using

technologies such as ADO.NET or Entity Framework to ensure seamless data retrieval and storage. Validation mechanisms are integrated to maintain data integrity and system reliability. Thorough testing is conducted, encompassing unit, integration, and system testing, to identify and rectify any issues. Upon successful testing, the system is deployed into the production environment, accompanied by comprehensive documentation for users and administrators. Post-deployment, ongoing maintenance and support are provided to address any arising issues and accommodate system enhancements. Throughout the process, adherence to best practices and robust coding standards ensures the creation of a robust and efficient portfolio management system tailored to the specific needs of the organization.

PROPOSED SYSTEM

The proposed portfolio management system utilizing PHP and MySQL encompasses a comprehensive approach to efficiently track and manage investment portfolios. Leveraging PHP for server-side scripting and MySQL for database management, the system offers a flexible and scalable solution tailored to the specific needs of portfolio managers and investors.

At its core, the system facilitates the creation and management of client portfolios, enabling users to input, update, and analyze various investment instruments such as stocks,

bonds, mutual funds, and alternative assets. Through an intuitive web-based interface developed with PHP, users can access their portfolios from any device with an internet connection, streamlining portfolio monitoring and decision-making processes.

Key features of the system include robust user authentication and authorization mechanisms to ensure data security and privacy. Additionally, extensive reporting functionalities allow users to generate customized performance reports, asset allocations, and risk assessments, providing valuable insights into portfolio performance and investment strategies..

Top of Form

ADVANTAGES

- Here using fully automated system.
- We established new Advance technology.
- We can search all records of post details.
- It's reduced the time consuming.

SYSTEM DESIGN

FILE DESIGN

System design is the process of planning a new system to complement or altogether replace the old system. The purpose of the design phase is the first step in moving from the

problem domain to the solution domain. The design of the system is the critical aspect that affects the quality of the software. System design is also called top-level design. The design phase translates the logical aspects of the system into physical aspects of the system.

INPUT DESIGN

Input Design is one of the most expensive phases of the operation of computerized system and is often the major problem of a system. A large number of problems with a system can usually be tracked backs to fault input design and method. Needless to say, therefore, that the input data is the life blood of a system and have to be analyzed and designed with utmost case and consideration. The decisions made during the input designer. The data, which is input to a computer – based information system, must be correct. If data is carelessly input and errors enter the system, it will lead to incorrect results whose consequences will be expensive and embarrassing to the designer. In data processing, the data entry operator often makes errors. This can be controlled by input design by using menu, interactive dialogue, consistent format etc.

In this system the users are provided with user friendly pages to give the input and if the user gives any wrong input validations are done and message boxes are provided in the necessary places. The message specified in the

message box is specified in a polite and in an informative manner.

System is interactive dialogue, which simplifies these data entry or access, instead of remembering what to enter. User can choose from a list of options and type it in the cursor position. This will reduce the number of corrections while entering the data.

OUTPUT DESIGN

The output design must be in such a way the user must be able to understand the given details. So each detail given in the output should have some meaning in displaying the data. The output design is displayed in the form of data view.

Output Design generally refers to the results and information's that are generated by the system for many end-users, output is the main reason for developing the system and the basis on which they evaluate the usefulness of the application. The objective of a system finds its shape in terms of the output. The analysis of the objective of a system leads to determination of outputs. External outputs are those whose destination will be outside the organization and which require special attention as they project the image of the organization. Internal outputs are those whose destination is within the organization. It is to be

carefully designed as they are the user's main interface with the system.

DATABASE DESIGN

The database design involves creation of tables that are represented in physical database as stored files. They have their own existence. Each table consists of rows and columns where each row can be viewed as record that consists of related information and column can be viewed as field of data of same type. The table is also designed with some position can have a null value.

The database design of project is designed in such a way values are kept without redundancy and with normalized format. Refer the appendix for screen shots of database design.

SYSTEM TESTING

TESTING METHODOLOGY

System testing is actually a series of different tests whose primary purpose is to fully exercise the computer-based system. System testing is the state of implementation that is aimed at assuring that the system works accurately and efficiently. Testing is vital to the success of the system. System testing makes the logical assumption that if all the parts of the system are correct, the goal will be successfully achieved.

The objective of testing is as follows:

- Testing is the process of executing a program with the intention of finding an error.
- A successful test is that one of the cover of undiscovered error.

UNIT TESTING

Unit testing focuses on the verification efforts on the smallest unit of software design, the module. This is also known as “Module Testing”. The modules are tested separately. This testing is carried out during programming stage itself. In this testing each module is found to be working satisfactory as regard to the expected output from the module.

VALIDATION TESTING

Here in the validation testing we want to check whether the given conditions to the text box are working correctly. Because in the name place we want to enter the characters and the special symbols only we should not enter the numbers in the name field. Here while on runtime we entered numeric values in the string specified columns of product inwards. It raises error. In this phase each module has been tested by wrong inputs, for example Employee Name should be a character as well as their age should be in numbers.

INTEGRATION TESTING

Integration testing is a systematic testing for constructing the programs structure, while at the same time conducting the tests to uncover errors associated with in the interface. The objective is to take unit tested modules and build a program structure. Modules are combined and tested as a whole. Here correction is difficult because the past experience of the entire program complicates the isolation cases. In this phase testing is done by how the system would interact with users and its User Interface flexibility.

WHITEBOX TESTING

White box testing, sometimes called glass-box testing is a test case design method that uses the control structure of the procedural design to derive test cases. Using white box testing methods, the software engineer can derive test cases.

- ☑ Exercise all logical decisions on their true and false sides.
- ☑ Execute all loops at their boundaries and within their operational bounds.
- ☑ Exercise internal data structures to ensure their validity.

BLACK BOX TESTING

Black box testing, also called behavioral testing, focuses on the functional requirements of the software. That is, black box testing enables the software engineer to derive sets of input conditions that will fully exercise all functional requirements for a program. Black box testing is not an alternative to white box techniques. Rather it is a complementary approach that is likely to uncover a different class of errors than white box methods. Black box testing attempts to find errors in the following categories. After preparing the test data the system under study was tested using test data. While testing the system by using test data errors were found and corrected. A series of tests were performed for the proposed system before the system was ready for implementation.

SYSTEM IMPLEMENTATION

The main focus of the analysis phase of Software development is on “What needs to be done”. The objects discovered during the analysis can serve as the framework or Design. The class’s attributes, methods and association identified during analysis must be designed for implementation language. New classes must be introduced to store intermediate results during the program execution.

- Login Process has proper check for authentic user to login.

- No login process shall happen until unless username and password are provided.
- Users after login shall be able to view the proposal available for their events only.
- No staff member unless authenticate shall be able to login.

CONCLUSION

The development of a portfolio management system using PHP and MySQL offers a robust solution for effectively managing investment portfolios. Through the utilization of PHP for server-side scripting and MySQL for database management, the system provides a flexible and scalable platform for investors and portfolio managers to track, analyze, and optimize their investment portfolios.

The system's web-based interface, powered by PHP, ensures accessibility across various devices, enabling users to monitor their portfolios anytime, anywhere. With features such as user authentication, authorization, and extensive reporting capabilities, the system prioritizes data security and provides valuable insights into portfolio performance and risk management.

By leveraging MySQL for data storage and retrieval, the system ensures efficient management of portfolio data, supporting

seamless scalability and reliability as the user base expands. Additionally, robust data validation and error handling mechanisms enhance data integrity, minimizing the risk of inaccuracies in portfolio information.

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