SOFTWARE REQUIREMENTS SPECIFICATION

Introduction

Almost everybody earns money in this world, but very few of them actually spend it in a wise way. There is no doubt that managing finances will help anybody to have a secure and safe financial future. I have attempted to solve this problem by creating a Real-Time finance management system - RFMS, wherein users can easily manage their finances.

RFMS will also help users to learn more about stocks. They can create a sample portfolio of stocks and monitor them closely to see which direction are their picked stocks headed. Graphs have been provided in the system for them to easily visualize and help them see the numbers in a clear perspective.

Apart from stocks RFMS helps the users to manage their finances using the different finance management tools and calculators provided.

The project divides finance management into 4 general categories. These include Portfolio Management, Reminders, Debt Management, and Account Management. Each of these categories has different tools to help users with their Finances.

Purpose of the Project

The purpose of the project was to develop an online finance management system where the users can learn and manage their stock portfolio and personal finances which would help them have control over their investments, personal finances or debts.

Profit Maximisation: For any business, the ultimate goal is to make a profit. This is why financial management is extremely important. Businesses should follow practices that will ensure maximum profits.

Context of the Problem

The context of the problem was to address issues of

personal finance management and problems of having to do so from one place. Also proprietary software had to be installed on every computer the users want to use for managing their finances.

Related Work

There has been lot of work done in the field of personal finance management software, but most of the work 2is done for stand-alone systems where▪the users usually have to buy and install proprietary software on their Computer.

Significance of the Project

RFMS was developed for providing a one stop place for dealing with.most of the problems in personal finance management. The users.are under no obligation to use this tool a set number of times. Based on their present situation the users can use the different tools provided in the system.

Assumptions and Limitations

The following assumptions and limitations were made

regarding the project:

1. To manage accounts using RFMS users need to enter their daily transactions into the system.
2. Users have all the required data for Credit Card Pay-Down such as Beginning Balance, Annual Percentage Rate and the Minimum Payment amounts.
3. User should have at least a very basic knowledge about stocks and managing portfolios.
4. The interest calculations used in the system are either Simple Interest or I Compound Interest Calculations.
5. A little bit Knowledge about Stocks

Product Functions

1. Reduced errors

Finances are one of the last places you want to make mistakes. From tax errors to payroll errors , financial errors can have a disastrous effect on a business, particularly smaller organizations or newer companies.

2. Ability to measure growth

This is particularly important to small businesses. Financial management software solutions give businesses insight into their growth across markets and products as the company expands and ages. Good financial management software will have built-in analytics and reporting that leadership and finance professionals can use to measure growth.

3. Improved planning and strategy

It's not enough to know what your current financial standing is – this information, along with projected revenue, assets, liabilities, and more all help executives, business owners, and other leaders plan for the months and years ago.

4. Improved productivity

Small businesses often have fewer resources – including money, people, and time – meaning that one of the biggest benefits of financial management software is how it grows efficiencies.

Operating Environment

This application is web-based and will be used on any System with Internet connection, but here we are using API's to work and facilitate our information.

Design Constraints

The software must run on a Web browser with a good internet facility.

3. Specific Requirements

External Interface

Stocks Menu
Loss Menu
Profit Menu
Loan Approving Menu
Income Tax Menu

Hardware Interfaces

Internet connection on client and server side

Software Interfaces

Any operating system for web browser interface

4. Functional Requirements

1. Financial Planning and Forecasting

s a part of financial management function, financial managers have to do financial planning. It is the estimation of the value of the set of variables at some point in the future. It is a blueprint of what one should do in the future.

2. Cash Management

One of the functions of financial management is cash management. Decisions must be made in regards to what is to be done with the cash.

3. Investment of Funds

While procuring funds is difficult, it is important to wisely invest these funds so that profit can be maximised. Proper calculation of the risk and ROI is crucial to prevent loss of funds. For this purpose, different tools such as net present value, internal rate of return and portfolio analysis are important. The investment decisions must be guided by 3 important principles viz. profitability, safety and liquidity.

4. Surplus Disposal

After investment and expenditure, the financial manager must decide on what is to be done with the surplus profit.

5. NONFUNCTIONAL REQUIREMENTS

Performance Requirements

Chrome Version Required 101.0.12 or later

Need at least 2.5mbps Internet connection

Software Quality Attributes

AVAILABILITY

CORRECTNESS

FAST

MAINTAINABILITY

Appendix (References)

The formula for calculation of ROI for shares:

Suppose that, for the share of a particular company, following were the attributes of i^{th} transaction.

Amount of money transacted = m_i

Time between date of transaction and day when ROI is being calculated = n_i

Type of transaction = buy or sell

Let $sgn(i)$ = +1 if the transaction was a buy, and -1 if it was a sell.

Then, the rate of investment, r, is got by solving the equation

$$\Sigma\ sgn(i)\ m_i\ (1+r)^{n_i} = M$$

where M is the total amount in that share, and summation is over all the transactions.

The formula for calculation of ROI for banks:

For a banks the ROI is constant, namely the interest rate of that bank.

The formula for calculating net-worth of a security:

If the security is of type "share":
Net-worth = *C*N* where *C* is the current value of the share of the security and N is the number of shares of that security which the user has.

If the security is of type "bank", the net-worth is simply the total balance of money in that bank.

The formula for calculating net-worth of a portfolio:

Net worth of a security = Σ *Net-worth* of i^{th} security.
(where the summation ranges over all the securities.)

The formula for calculating net-worth of entire investment:

Net worth of entire investment = Σ *Net-worth* of i^{th} portfolio.
(where the summation ranges over all the portfolios.)

Benefits Of RFMS

1)Greater Accuracy -

With a financial management system, parts of the financial process are automated, which reduces errors in tax or payroll calculations, for example. It also keeps control over records and categorizes expenses to help streamline audits and reduce business liabilities. All financial information is kept in one central location and it can be accessible to end-users across departments, business units, and branch offices for greater accuracy and consistency

2) Improved Compliance -

An FMS helps remove risk by ensuring compliance with the latest accounting standards. It provides an audit trail to capture all changes and you can manage approval limits, set thresholds, and segregate duties to reduce fraud. A financial management system also lets businesses see immediately how changes with finance law will impact their organization.

3)Better Strategic Planning

With a financial management system you can answer important business questions to help you determine future outcomes. It can create and assess “what if” scenarios, identify new business opportunities, and identify trends that might occur to help you develop a more informed corporate strategy.

4)Increased Productivity

An FMS allows tasks to be automated which reduces errors and streamlines business processes. Staff can move away from time-consuming spreadsheets and use built-in workflow and process management capabilities to track each step of the close process and complete it much more quickly and accurately.