BUDGET MANAGEMENT USING JAVA SCRIPT

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ABSTRACT

Budget Management Project is asimple, online tool that helps people tokeep track of their Money.Allowsusers toset abudget,record how muchtheyearnand spend,and seereportson theirfinancialhealth. Thegoalistogiveuseraclearpdf ofwheretheirmoney isgoing, sothey can make better choice about spending and saving. BM's main features include adding and organizing income and expenses, calculating how much money is left in the budget, updating information in real- time, and showing data through easy-to-understand pdf.BM is interactive responsive, and providing a smooth experience for users. BM aims to help users manage their finances more effectively by making budgeting easier, promoting financial awareness, and supporting smarter spending habits.

1. INTRODUCTION

Managingabudgetisimportant forbothindividualandorganizationtomakesuretheyspend theirmoneywiselyandachievetheirfinancialgoals,withtheriseoftechnology,softwaretools have made managing budgets much easier. This paper proposes a project to create a budget management system usingJavaScript. The goal of this system is to help users track their income and expenses,setsavingsgoals,andgeneratefinancialreports.Byusingjavascriptapopularand flexibleprogramminglanguage,thesystemwillbeeasytouseallowinguserstoplanandmanage

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their budgets effectively.The main aim ofthis project is to create a simple, effective, and user-friendlytoolthatencouragesbettermoneymanagementinfinancialplanning[1-24].

2. PROBLEMSTATEMENT

Spending Managing money is wisely important, but many people find it hard to keep track of their income, spending, and savings. Without a clear understanding of their finances, they may overspend, struggle with budgeting, orfail to reach their financial goals. Many people still use manual methods like writing expenses in a notebook or using spreadsheets. However, these methods can be time-consuming, difficult to manage, and doing many mistakes. To solve this problem, we propose a Budget Management System, a simple and easy to use, it is an web based application built using JAVASCRIPT, HTML, and CSS.

This system will help users like; record income and expenseswith detailslike category, amount and date,monitortheirbudget inrealtimewithclearsummaries,theycanset limits for spending in different categories and get negative value of amount if they overspend.

This system will provideaconvenient and efficient waytomanagefinances,makingit easier for users to control their spending, save money, and make better financial decisions

3. LITERATURESURVEY

Budget management has been an essential aspect of financial planning, with various digital tools developed to assist users in tracking income and expenses. Traditional budgeting methods relied on spread sheets and manual calculations, which were time-consuming and cause to errors. With advancementsin web technologies, budgeting applicationshave evolved to provide automated and interactive solutions.

Wehavestudiedvariouspapersrelatedtobudgetmanagement:

1. ExpenseTracker(AtiyaKazi)

This paper Presents an expense tracking system designed to help users monitor their income and expenses efficiently. The system functions as a digital financial diary, offering features like automated calculations, categorization of transactions, and financial reports. Theproposed system aims to replace manual record keeping methods, reducing errors and improving budget management. Keyfeatures include a user-friendly interface, offline access, and future enhancements such as multi user support and a currency converter.

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2. MoneyMinder:PersonalFinanceTracker (OmMahajan)

MoneyMinderisanonlinetooldesignedforeffectivefinancialtrackingandbudget

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management. The system offers an interactive user interface, security features, and detailed financial reportscategorized byaccount and transactiontypetheliteraturereviewhighlights the importance of personal finance management and the role of software in improving spending habits. The application allows users to set budgets, track savings, and receive alerts for upcoming expenses. It employs web technologies like HTML, CSS, JavaScript, python and Django for frontend and backend development.

3. Daily ExpenseTracker(ShivamMehra)

This paper describes a web based daily expense tracker that enables users to maintain digital recordsof theirfinancialtransactions. The system providesreal timeupdatesusing charts and graphical representations of expenses and income. It is developed using Reacts AI-powered voice commands. The key focus is on accessibility, offering compatibility across multiple devices without requiring additional software installations.

4. ExpenseTracker(T.Pranay)

This studyintroducesanandroid-based expensetrackingapplicationdeveloped usingAngular for the frontend and SQLite for the backend. The application allow users to register, and income and expenses, and categorize transactions. A key feature includes automatedreminders for financial transactions. The paper also discusses the future scope, including features like barcode scanning for receipts, group expense sharing, and financial alerts when expenses exceed income.

5. BudgetandOrganizationManagement(RobbShawe)

This study explores the significance of budgeting in both private and public sector organizations. It discusses how budget server as essentialtools for planning, controlling, and managing financial resources.The paper highlights the role of budgeting in business organization for managing state resources. While budgeting remains valuable,the study acknowledges criticismsand challenges, leading organizations to adapt their budgeting processes rather thanabandonthem.Thefuturescopeincludescalculating budget strategiesto enhance financial planning and control.

4. EXISTINGSYSTEM

The current methods for personal finance tracking using applications like Money Minder on traditional financial management techniques and basic software functionalities. These

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Systems allow user to input their financial data, track expenses, and generate reports. However,theyhaveseverallimitations,suchaslimiteduserengagementfeatures,and

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potential security vulnerabilities. This finance tracking works like registration, login, expensing and budget creating. It can't show the past financial details and also it is not an advanced level up.

5. PROPOSEDSYSTEM.

Managing personal finances effectively is a significant challenge for many individuals and smallbusinesses.The complexityof trackingincomeand expenses,coupled withtheneed for real-time monitoring and categorization, often leads to financial mismanagement. Traditional budgeting methods can be difficult and time-consuming, making it hard for usersto stay within their spending limits and gain insights into their financial habits. The primary challenge in personal finance management is the lack of a user-friendly tool that allows for easytracking of expenses acrossvarious categories suchasfood,travel,and utilities. Existing solutionsoften failto providereal-time monitoring. ThisBM isan almost advancedeveloping features are considered and also reporting of saving feature is available in this BM. This financial management can save the human expenses of their day-to-day life's and its was mostly used for business and also family financial control.

6. WORKINGPROCESS

STEP-BY-STEPWORKINGPROCESS

1. UserRegistrationandLogin

Havingprocessof registrationof featureslikeemail,password,genderanddateof birth Next continue to process of login with email and password

2. User Interfacesetup

The webapplication consistsof adashboard whereuserscanview theirfinancial data. Input fieldsareprovided foruserstoenterincomeand expensesalongwithdetailslike amount, category and date.

3. Adding income and expenses

Userscanenterincomesources

Users can enter expenses

Eachtransactionis categorized tohelpusers understand theirspendingpatterns.Datais stored at database (MYSQL).

4. BudgetCalculation andMonitoring

Thesystemcalculatestotalincomeandtotalexpenses.

It determinestheremainingbalancebysubtractingexpensesfromincome.

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Usercanset amonthly budget limit,and thesystemwilltrackwhethertheystaywithin the limit.

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5. Generating PDF

Userscangeneratetheirfinancialpdf.

Pdf summarize total income and expenses.

Userscan export reportsforfuturereference.

7.DataStorage andRetrieval

The systemuses Databasetosavetransactionsforquickaccess. Database

can be integrated for long term data storage.

Whenusersreturn,previouslysavedfinancialdatainretrievedanddisplayed.

SUMMARY: User open the application and sees their financial dashboard. Then Users enter income and expenses, which are stored and displayed. Budget is calculated, and alerts (negative) are shown ifspending exceeds limits. Users setsavings goals and track progress. Financial reports are generated for better decision making. Data is saved and retrieved when the users revisitthe application.

7. ADVANTAGES

The Budget Management Systembuilt usingJavaScript, HTMLand CSSprovidesan efficient and user-friendly way to manage finances. Integrating a pdf download option enhances usability by allowing users to save and share theirfinancial reports .

Herearesomeofthekey advantages:

- User-FriendlyandInteractiveInterface:

The systemoffersasimple and easytouseUI fortrackingincome,expenses, and savings. Real time updates ensures users can instantly see changes in their financial data.

- EfficientBudgetTracking:

Userscan set monthlybudget fordifferent categories.Alertsasnegativeamount helpusers stay with in their financial limits.

- PDFDownloadOptionfor Reports:

The systemallows users togenerateand download reportsasPDFs.Thisfeaturecanhelp like convenience, record keeping, sharing.

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- AccessibilityandCross-PlatformSupport:

Here,it is aweb-based application,it worksondesktop,tablets,and mobiledevices.noneed for installation-Userscan access their financial data anytime, anywhere.

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- EncouragesBetterFinancialManagement:

Helps users understand their spending behavior through reports and insights. Supports savings goals tracking, motivating users to save for future needs. Promotes better financial discipline by highlighting unnecessary expenses.

- Cost-EffectiveandScalable:

Built using javascript, HTML and CSS, making it lightweight and fast.Can be easily expandedtoinclude additionalfeatureslikebankintegrationorAI-basedexpense predictions.

8. FUTUREWORK

Future work for the budget management system can access to Use of AI or ML to analyze spending patterns and provide budget recommendations. Implement automatic expense categorization, where thesystemsuggestscategoriesbased onpast spendingbehavior,Developspendingalter and financial tips to help users savemoney. also, Integration with Bank Accounts & Payment Apps can enable users to link their bank accounts or digital wallets to automatically import transactions. And also Voice Assistant &Chatbot Support can implement a voice command feature to allow users to add expenses by speaking, so create a chatbot assistant that answers financial queries and provides budgeting advice.

9. MODULES

- UserAuthenticationModule:Login,Registration
- BudgetManagementModule:UsercansetBudget,Delete andResetthe budget.
- ExpenseManagementModule:UsercanaddExpenses,DeleteExpenses,andtrack them.
- IncomeManagementModule:UsercanaddIncome,DeleteIncome,andtrackthem.
- DataBaseManagementModule:Itisusedtostoreallthedataofusers.
- Clear/ResetModule:Usercanresetexpenses,incomeandall data.
- LogoutModule:Userscanuselogoutfunctionalitytologoutfromwebsite

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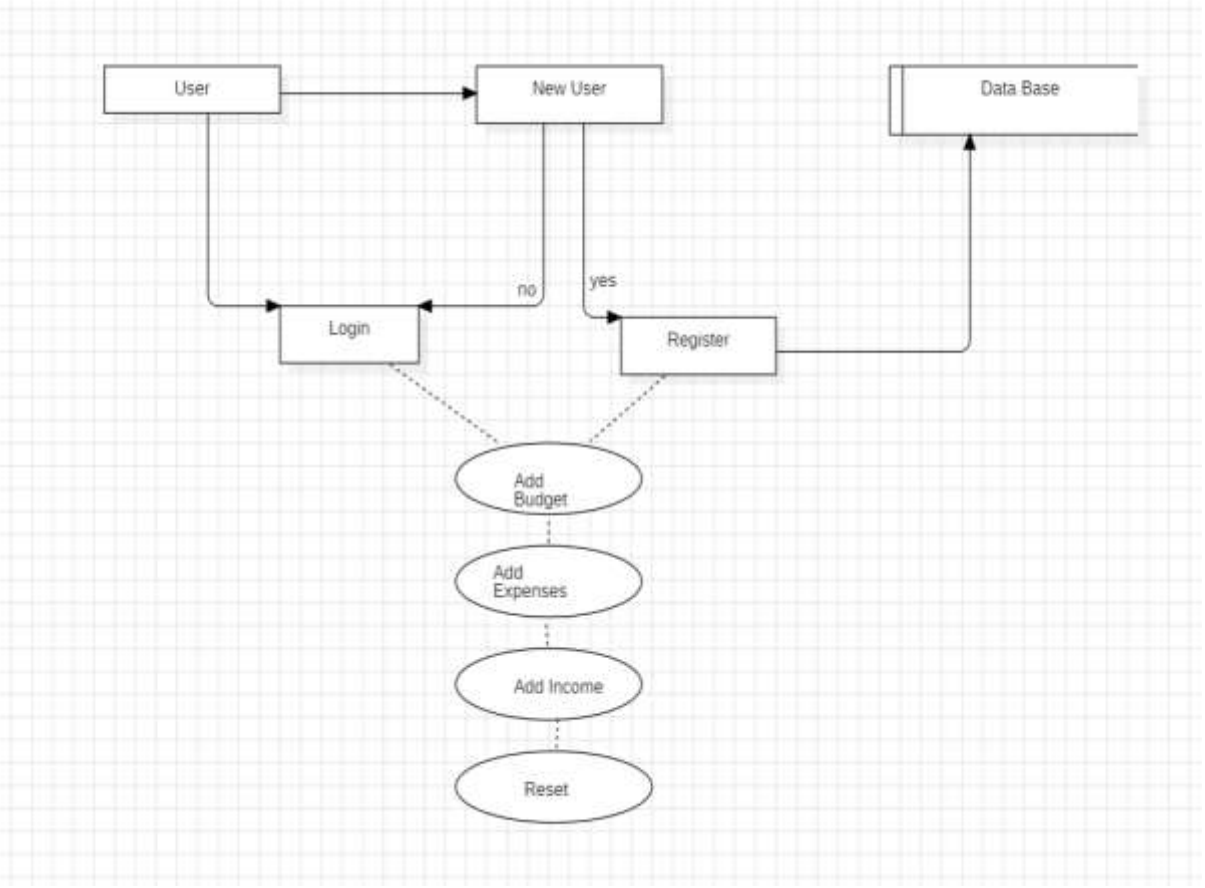
10. DATAFLOWDIAGRAM



This data flow diagram (DFD) shows the working of a simple Budget Management. The process starts with a user who either logs in or, if they are new, registers first. If the user is new,theygothroughtheregistrationprocess, and theirdetailsaresaved inthedatabase.Once registered, or ifthe user is already existing, they log in to the system. After logging in, the user can perform key actions like adding a budget, recording expenses, adding income, and resetting their data. All these operations interact with the database where the information is stored and managed.

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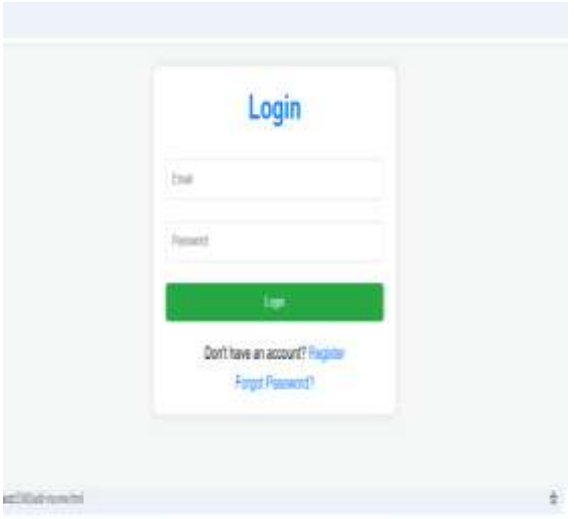
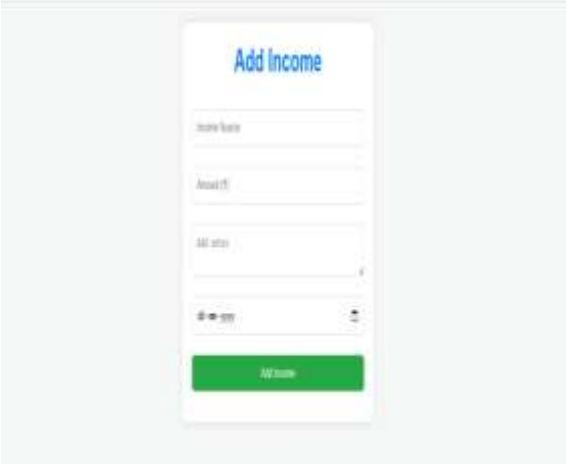
11. OUTPUT





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12. CONCLUSION

TheBudget Management Systemdeveloped usingJavaScript,HTML and CSSprovides an efficient and user-friendly platform for individuals totracktheir income, expenses, budget limits, and savings goals. By offering features such as Real-Time budget tracking, data visualizationthroughPDFreportdownloads,thesystemenhancesfinancialawareness.Overall, this project serves as a valuable tool for personal financial management, helping users stay within budget, track spending habits, and achieve savings goals, with further development, it can be developed into a more advanced and callable financialmanagement solution.

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