A Mini Project Synopsis on

Comprehensive Budget and Investment Management System (Investify)

S.E. - D.S Engineering

Submitted By

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CERTIFICATE

This to certify that the Mini Project report on **Comprehensive Budget and Investment Management System** has been submitted by <u>Monish S Mudaliar(22107027)</u> <u>Chitresh Poojary(22107010)</u> <u>Siddhesh N Patil(22107019)</u> <u>Chinmay Pawaskar (22107066)</u> who are Bonafede students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfillment of the requirement for the degree in **<u>CSE(DATA SCIENCE)</u>**, during the academic year **<u>2023-2024</u>** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

Prof. Aavani Nair
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References

Acknowledgement

Chapter 1: INTRODUCTION

In today's complex and dynamic financial landscape, organizations face the challenge of efficiently managing their financial resources, ensuring fiscal responsibility, and making strategic investments that drive growth and sustainability. To address these challenges, Comprehensive Budget and Investment Management Systems (CBIMS) have emerged as indispensable tools for organizations, both in the public and private sectors.

A Comprehensive Budget and Investment Management System (CBIMS) is a sophisticated financial management solution used by organizations, typically in the public sector, to plan, track, and optimize their financial resources. This system combines budgeting and investment management functionalities to help organizations make informed financial decisions and allocate resources efficiently.

1.1. Purpose :

1.1.1. **Budget Management:**

CBIMS begins with the budget management component. It allows organizations to create, review, and manage their budgets effectively. This includes defining financial goals, allocating resources to various departments or projects, and setting spending limits.

1.1.2. **Comprehensive Planning:**

CBIMS enables comprehensive financial planning by incorporating various aspects of an organization's operations, such as personnel costs, capital projects, and operational expenses. This holistic approach ensures that all financial elements are considered when creating a budget.

1.1.3. **Resource Allocation:**

CBIMS assists in allocating resources optimally. It helps organizations prioritize projects, departments, or initiatives based on their financial impact, strategic importance, and available resources.

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1.1.4. **Cost Control:**

One of the key goals of CBIMS is to control costs effectively. By monitoring expenses, tracking performance against budget, and identifying cost-saving opportunities, organizations can ensure financial sustainability.

 1.2. Objectives :

1.2.1. **Enhanced Financial Planning:**

Implement CBIMS to improve the financial planning processes by providing a comprehensive view of budgets, expenditures, and revenue projections.

1.2.2. **Effective Resource Allocation:**

Utilize CBIMS to optimize resource allocation by identifying underutilized resources, reallocating funds, and ensuring resources are aligned with strategic goals.

1.2.3. **Strategic Alignment:**

Ensure that CBIMS aligns financial goals with the user's overall objectives, promoting consistency and coherence in financial decision-making.

1.3. Scope:

1.3.1. **Budget Planning and Management:**

- Creation and management of budgets for various departments, projects, and initiatives.

- Allocation of financial resources to meet organizational objectives.

- Monitoring and control of expenditures to ensure adherence to budgets.

- Continuous budget tracking and variance analysis.

1.3.2. **Analysis:**

- Scenario analysis to assess the potential impact of different financial decisions.

- Data-driven analysis to support informed financial decision-making.

1.3.3. **Cost Control and Reduction:**

- Monitoring and control of costs to prevent overspending and identify cost-saving opportunities.

- Analysis of cost drivers and trends to implement cost reduction strategies

Chapter 2: PROBLEM DEFINITION

In the face of increasingly complex financial landscapes and the need for users to make informed and strategic financial decisions, our aim is currently encountering significant challenges in managing budgets and investments effectively. The existing financial management processes lack integration, transparency, and data-driven decision-making capabilities. This results in suboptimal resource allocation, inefficient budget planning, and limited visibility into investment performance. Additionally, compliance with financial regulations is becoming increasingly burdensome, posing risks to our financial stability and reputation.

These challenges are negatively impacting our user's ability to:

- **Integration of Financial Processes:** Often, financial data is spread across various systems and platforms, making it difficult to get a holistic view of your financial situation. Integration issues can lead to errors, delays, and increased administrative overhead.

- **Data-Driven Decision-Making:** In today's data-driven world, making financial decisions without access to relevant and accurate data can lead to suboptimal choices. Data-driven decision-making can help you identify trends, risks, and opportunities.

- **Budget Planning:** Inefficient budget planning can lead to overspending, misallocation of resources, and missed opportunities for saving and investment. Proper budgeting is crucial for financial stability.

- **Investment Performance:** Without visibility into how your investments are performing, you might be missing out on opportunities for growth or taking on too much risk. Regular monitoring and evaluation are essential for optimizing investments.

- **Compliance:** Financial regulations are becoming increasingly complex, and non-compliance can lead to legal issues, fines, and damage to your reputation. Meeting regulatory requirements is vital for financial stability.

- **Optimizing Financial Resources**: Without effective management of resources, you might be missing out on opportunities to grow your wealth or cut unnecessary expenses. Optimization can help you achieve more with the resources you have.

- **Strategic Objectives:** Effective financial management is essential for achieving your long-term goals, whether that's saving for retirement, starting a business, or buying a home.

The scope of this project is to implement a Comprehensive Budget and Investment Management System (CBIMS) that addresses these challenges by streamlining budget management, optimizing resource allocation, enhancing investment management, and ensuring regulatory compliance. The proposed CBIMS will serve as a centralized, integrated platform to support data-driven decision-making, improve financial transparency, and align financial processes with our strategic objectives. This solution will empower our organization to navigate the evolving financial landscape with confidence, efficiency, and accountability.

Chapter 3: PROPOSED SYSTEM

This budget management system helps users to visualize their expenditure on the basis of their monthly plan. The system provides a function of creating their own budget and customize the plan on the basis of their income, expenditure and saving. This helps the users to effectively follow their plan and reach the goal they hope to achieve. The user can also set a special amount to be saved till a desired period of time and the optimal amount to be saved in that period to reach the goal.
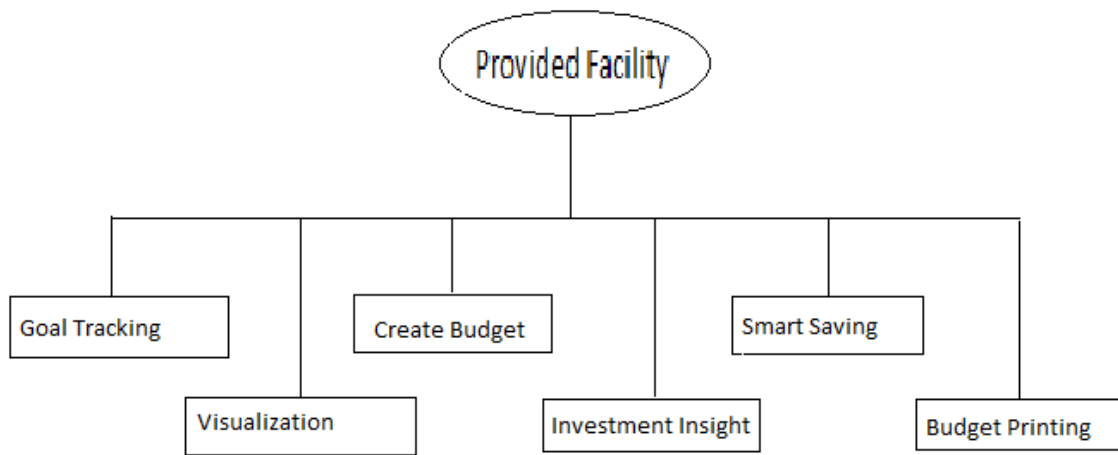
3.1. Features & Functionality:

1. Create Goals:

This feature allows users to set specific savings goals, typically on a monthly basis. These goals could be related to saving for specific expenses, investments, or achieving certain financial milestones.

2. Visualization:

Visualization tools provide users with a graphical representation of their expenditures. This can include charts, graphs, or other visual aids that make it easier for users to understand their spending patterns and identify areas where they can potentially cut costs or save more.

3. Categorization of Funds:

Users can categorize their funds or expenses based on their preferences. This categorization helps users better organize and track their financial activities, such as distinguishing between fixed expenses (e.g., rent, utilities) and discretionary spending (e.g., dining out or entertainment).

4. Export Budget :

This feature allows users to export their created budget in a PDF file format. Exporting the budget in this way enables users to save or share their budget data easily, whether for personal record-keeping or for discussions with financial advisors or family members.

Chapter 4: PROJECT OUTCOMES

With the help of CBIMS (Investify), we hope that the user can achieve their financial plan as per their requirement and achieve the following outcomes:

1. **Efficient Budget Management:** CBIMS can streamline the budgeting process by providing user-friendly tools for creating, approving, and monitoring budgets. It can automate repetitive tasks, facilitate collaboration among team members, and ensure data accuracy, making the budgeting process more efficient.

2. **Optimized Resource Allocation:** With improved visibility into financial data and a user's strategic goals, CBIMS can help in optimizing resource allocation. It can provide insights into where financial resources are currently allocated and recommend reallocations that align better with strategic objectives. This can lead to better decision-making and resource utilization.

3. **Effective Cost Control:** CBIMS can enhance cost control by offering features that track expenses in real-time. It can set spending limits, send alerts when thresholds are approached, and identify areas of potential overspending. Additionally, the system can provide analytics that highlight cost-saving opportunities, helping users make informed decisions to reduce unnecessary expenditures.

Chapter 5. SOFTWARE REQUIREMENT

To develop and deploy the project, the following software requirements are necessary:

1. **Java(Version 20.0.2):**

Java is a widely-used, high-level, object-oriented programming language known for its portability, versatility, and security features. It was developed by Sun Microsystems (now owned by Oracle Corporation) and first released in 1995. Java has since become one of the most popular programming languages in the world due to its ability to run on various platforms and its extensive ecosystem of libraries and tools.

2. **IDE:**

NetBeans is a popular Integrated Development Environment (IDE) primarily used for Java development, but it also supports multiple other programming languages. It provides a range of tools and features to facilitate software development, including code editing, debugging, testing, and project management.

3. **Database:**

MySQL is a relational database management system (RDBMS). The data in a MySQL database are stored in tables that consist of columns and rows. MySQL is a database system that runs on a server. Make your own house using MySQL database (version 8).

4. **Java Libraries:**

In Java, external libraries are pre-built collections of classes and methods that provide additional functionality beyond what is included in the standard Java libraries. These libraries are often used to simplify common tasks, access external resources, or perform specific function.External libraries like Jfreechart , itext , Jcalender to enhance the user side experience .

Chapter 6: PROJECT DESIGN
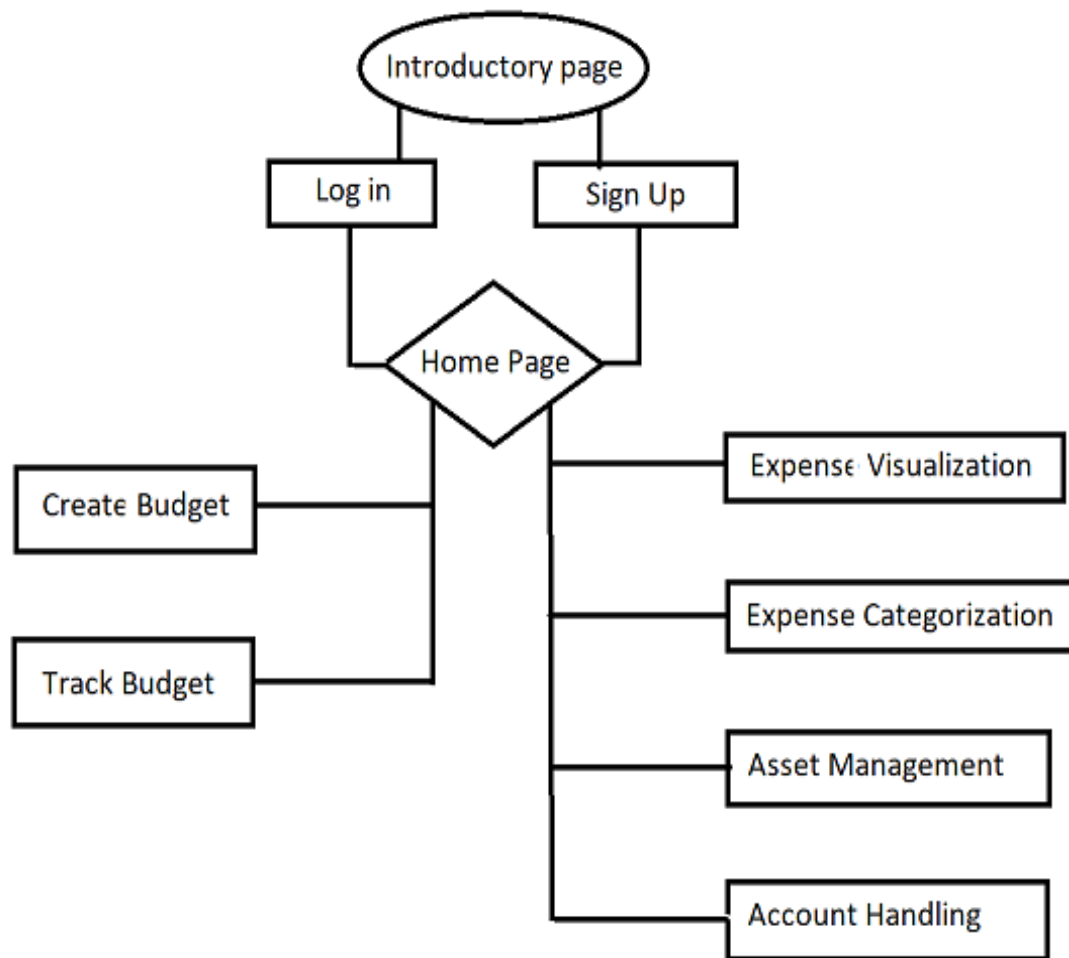
Fig 1: B:ock Diagram
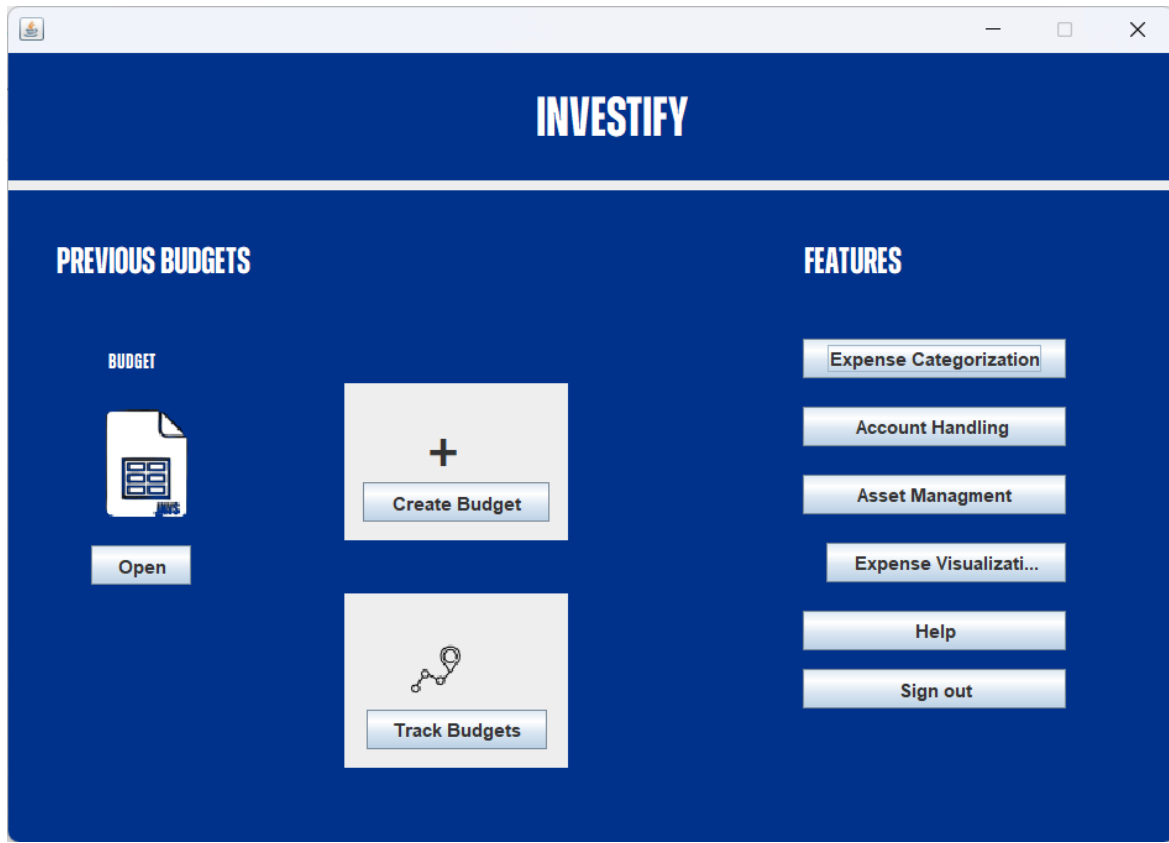
Fig 2: Home Page

The main Home page helps the user to navigate through all the available options and choose what the want to do.

Fig 3: Create Budget

The create budget page lets users add a new budget and Delete , Print and Search budget that already exists.

Fig 4: Expense Categorization

Expense categorization lets users add their daily expenses and categorize them according to their preference. This acts like a diary for the users to review the expenses.

Fig 5: Asset Management

INVESTIFY

HELP

Create Budget :

Helps you create a budget

Track Budget :

Helps you keep a track of your budg...

Expense Visualizatio...

Helps you visualize your expenses

Expense Categorization :

Helps you categorize your expenses

Asset Managment :

Helps you manage your assets

Account Handling :

Helps you handle mutliple bank accounts

Back

Fig 6: Help Page

Fig 6: Account Handling
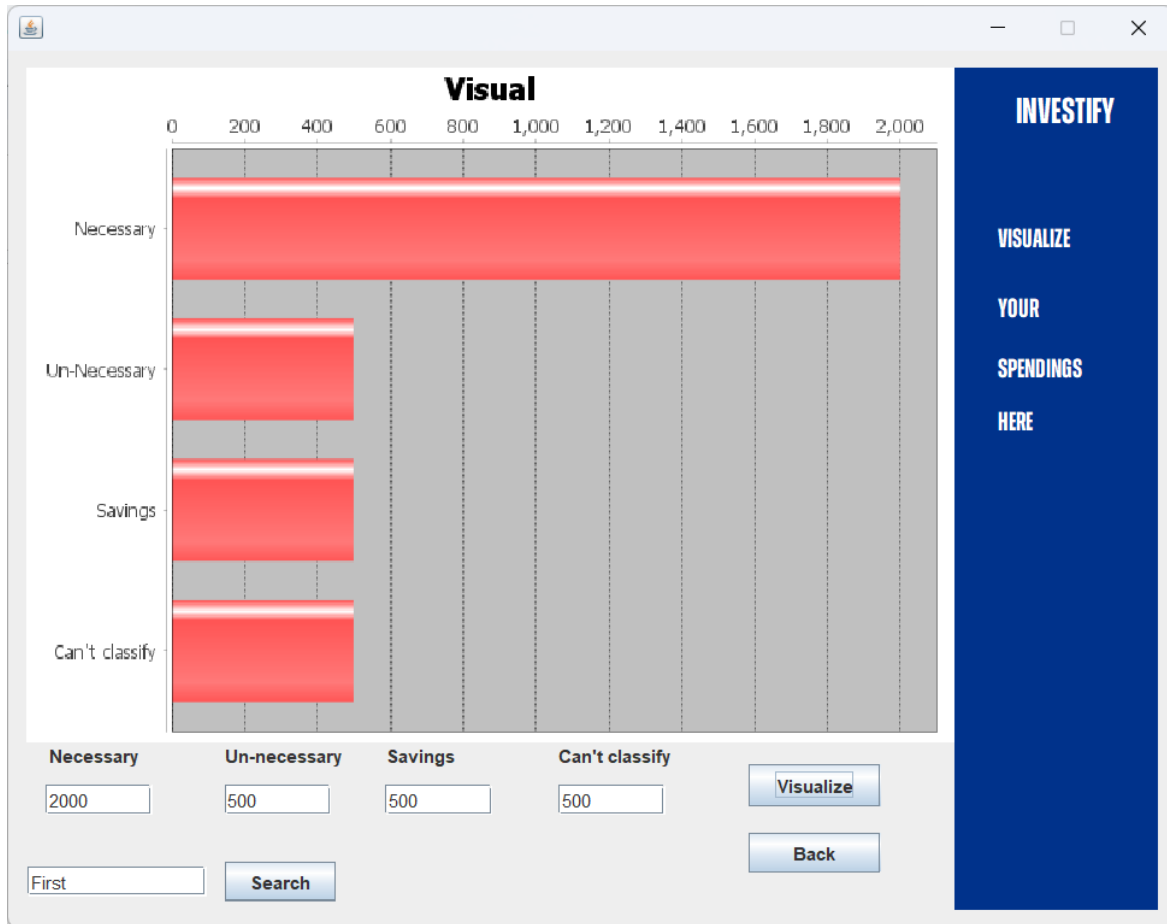
Fig 7. Visualization Page

Chapter 7: PROJECT SCHEDULE

Sr. No	Group Member	Time duration	Work to be done
1	Monish S Mudaliar	1st week of August	Group Formation & Project topic Finalization
		2nd week of August	Discussions related to Functionality, Scope & User interface
2		3rd week of August	Designing Paper Prototype for Graphical User Interface(GUIs)
3	Chitresh Poojary	4th week of August	Designing Graphical user Interface(GUIs)
4		1st week of September	Designing Graphical user Interface(GUIs)
5	Siddhesh N Patil	2nd week of September	Preparation for building database connectivity.
6		3rd week of September	Finalization of columns in database table and building database connectivity.
7	Chinmay Pawaskar	4th week of September	Building database connectivity.
8		1st week of October	Building database connectivity.
9		2nd week of October	Building connectivity to the database and adding auto fetch from database function.

Chapter 8: CONCLUSION

In conclusion, CBIMS (Investify) plays a crucial role in enhancing cost control for users by offering a comprehensive set of features and capabilities. It empowers users to manage their finances more effectively and make informed decisions to achieve their financial goals. The system achieves this through:

- Real-time Expense Tracking: CBIMS provides users with a clear, up-to-the-minute overview of their expenses, enabling them to stay in control of their financial situation as it unfolds.

- Setting Spending Limits: Users can establish spending limits and budgets for various expense categories, ensuring they stay within their defined financial boundaries.

- Alerts and Notifications: The system sends timely alerts and notifications when spending limits or thresholds are reached, helping users proactively manage their finances and avoid overspending.

- Identifying Potential Overspending: CBIMS analyzes spending patterns and identifies areas where potential overspending may occur, allowing users to take corrective actions before financial issues escalate.

- Analytics for Cost-saving Opportunities: The system provides detailed analytics and reports that highlight cost-saving opportunities, assisting users in making more cost-effective decisions and optimizing their financial resources.

By combining these features, CBIMS not only helps users gain better control over their expenses but also encourages responsible spending practices. It ultimately supports users in achieving their financial objectives and promoting a healthier and more secure financial future.

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IDE : **Downloading Apache NetBeans 19**

Youtube: **https://youtu.be/Fj5y_intc5o?si=JzBLgdumMygsYqwi**

<u>ACKNOWLEDGEMENT</u>