**ZEROTH PROJECT REPORT**

SUBMITTED BY –

TINGKU EUSIBIOUS N. SANGMA

Reg – 24MCA00PY0007

MCA – II Year

DEPARTMENT OF COMPUTER SCIENCE

PONDICHERRY UNIVERSITY

UNDER THE GUIDANCE OF –

**Dr. M. NANDHINI**

PROFESSOR,

department of computer science

pondicherry university

**PROJECT TITLE**

**BudgetLens**

**-**Personal Expense Tracking & Analysis Software

**PROBLEM DEFINITION**

Today, even in the era of digital world, when almost every sector is being digitized. Individuals suffer in managing their finances. Great number of people still rely on physical records or even on their memory alone to manage personal expenses. Many don’t account for their monthly expenses.

**NEED FOR EXPENSE TRACKING APPLICATION**

An Expense Tracking Application addresses the growing need for effective financial management for individuals in several crucial ways, as follows:

1. **Streamlined Financial Management:** It will automate the process of recording and categorizing expenses, doing away with traditional manual methods (like paper and spreadsheets) and reducing the risk of human error.
2. **Budgeting:** This app will help users create budgets, track their progress, and alert them when they’re approaching or exceeding spending limits.
3. **Financial Awareness:** By analyzing where and how money is spent, users can identify unnecessary expenses, see spending trends, and make informed decisions to save or use funds efficiently.
4. **Reduce Errors:** Automated expense tracking reduces calculation mistakes adding a layer of transparency.
5. **Improved Reporting and Analytics:** Users benefit from detailed summaries, visual charts, and insights, which help with better financial analysis.

**PROPOSED SYSTEM**

**BudgetLens** is the proposed software solutions that seeks to ease its users with their budget plans, savings, track their expenses and help them to make informed financial decisions.

**Features:**

* **Manual entry,** this will ensure that no unintentional entry is made.
* **Categories,** each and every entry can be segregated by the nature of expense, thereby making it easier to track.
* **Visualization,** the analysis can be seen in form of graph easing users to understand their expense trend better.
* **Budgeting,** the users will be able to create their own budgets.
* **Debt/Lend section,** user will be able to track their debts and lending amounts.
* **Notifications,** the users will be able to get alerts when they are spending over their budget.
* **Report generation,** a monthly report will be generated which can be viewed by users.

**MODULES**

1. **Authentication and User Management**

- User signup/login

- Profile management

2. **Expense Entry and Management**

- Manual expense entry f

- Edit and delete expense entries

- List of all transactions

3. **Expense Categories**

- Default categories

- Create, rename, or delete custom categories

4. **Budget Management**

- Set monthly budget

- Track budget consumption in real-time

- Budget alerts (e.g., nearing limits)

5. **Analysis and Insights**

- Monthly expense breakdown

- Weekly expense summary

- Highest/lowest spending categories

- Historical trends

6. **Comparisons**

- Month-over-month expense comparison

7. **Data Visualization**

- Pie chart for category breakdown

- Bar/line charts for trends and comparisons

8. **Notifications**

- Reminders to log expenses

- Alerts when close to or exceeding budget

9. **Data Storage and Sync**

- Local storage (SQLite, Realm)

- Optional cloud sync and backup (Firebase, etc.)

10. **Debt/Lend**

**-** Add borrowing/lending amount

- Borrow/lend date

- Due date

**SOCIETAL BENEFIT**

This app will ease every individuals who wishes to be aware of their financial transactions and need help them to manage efficiently. It will help to build **financial discipline, prevent overspending, reduce errors, save time, and enable better, data-driven decision-making for anyone managing money**. This is essential in today’s fast-paced, digital financial environment.

**TECHNOLOGY USED**

1. React Native - Frontend
2. Node.js– Backend
3. Expo – Framework
4. SQLite – Local Database
5. Android studio – Emulator
6. Expo GO – Live code testing & Debugging
7. Git – Version control
8. VS Code – Editor