

DATATHON

TEAM NAME :- LEARNERS

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CHALLENGE OVERVIEW

- Students struggle to track their expenses effectively.
- Leading to poor budgeting and financial mismanagement.
- There is a lack of an intuitive, tech-driven solution tailored to student needs.
- Making it difficult to monitor spending, set savings goals, and gain financial insights.



WHY IT MATTERS ?

📌 Financial Struggles Faced By Students

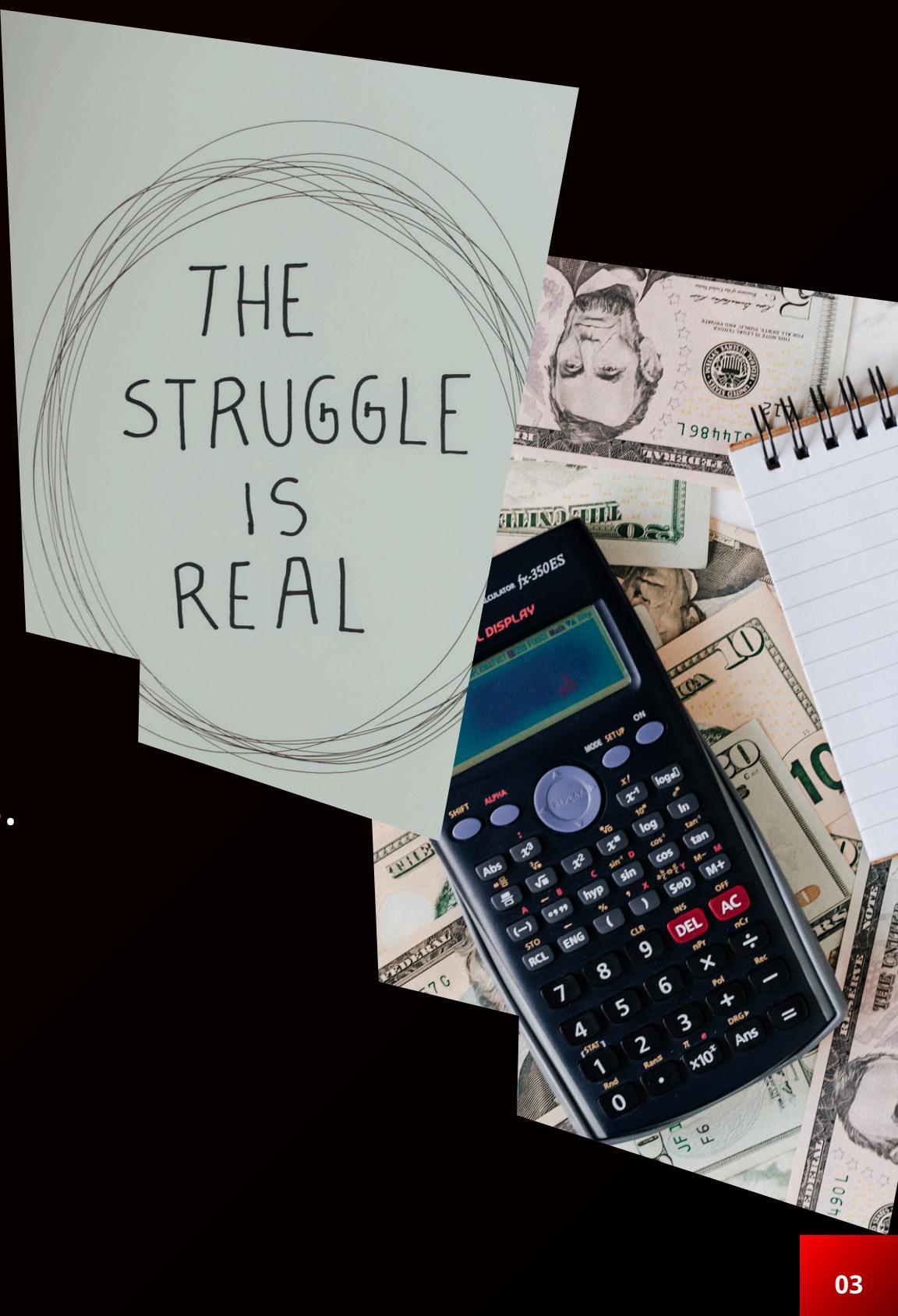
- 75% of students don't track their spending regularly.
- 40% run out of money before the end of the month.
- Student debt is rising, making financial awareness crucial.

📌 Lack of Effective Budgeting Tools

- Most budgeting apps are too complex or not tailored for students.
- Manual tracking is time-consuming & inefficient.
- No automated insights to help students save money.

📌 Real-World Consequences

- Poor spending habits lead to unnecessary debt & stress.
- Lack of financial literacy affects long-term financial stability.
- Students need an easy, tech-driven solution to manage their expenses smartly.



CORE NEEDS

USER PERSPECTIVE

- User-friendly interface
- Mobile and web compatibility
- Financial insights and reports
- Personalized Budgeting
- Data security & privacy
- Real time expense tracking

DEVELOPMENT PERSPECTIVE

- Cross platform development
- Cloud database
- AI/ML Integration
- API connectivity
- Secure authentication
- Automated notification

EXISTING SOLUTIONS

Strengths, Weaknesses & Opportunities for Innovation

GOOD BUDGET

Strengths:

- Uses **envelope budgeting system** (allocates money into categories).
- Great for couples or shared household expenses.
- No need to link a bank account (better privacy).

Weaknesses:

- Requires **manual expense entry**.
- Free version has limited "envelopes" for budgeting.

Opportunity:

- Use **AI to automatically sort expenses** into envelopes.
- Allow **hybrid tracking (manual & automatic)** for flexibility.
- Enable **goal-based savings tracking** for tuition, travel, etc.

SPLITWISE

(FOR SHARED EXPENSES AMONG ROOMMATES/FRIENDS)

Strengths:

- Splits bills easily among multiple people.
- Sends reminders for due payments.

Weaknesses:

- Not a full-fledged budgeting tool.
- Requires manual entry for transactions.

Opportunity:

- Integrate a **full expense tracker + shared expenses** in one app.
- Allow **QR code-based bill splitting** for easy tracking.
- Enable **AI-based recommendations** for saving on shared costs.

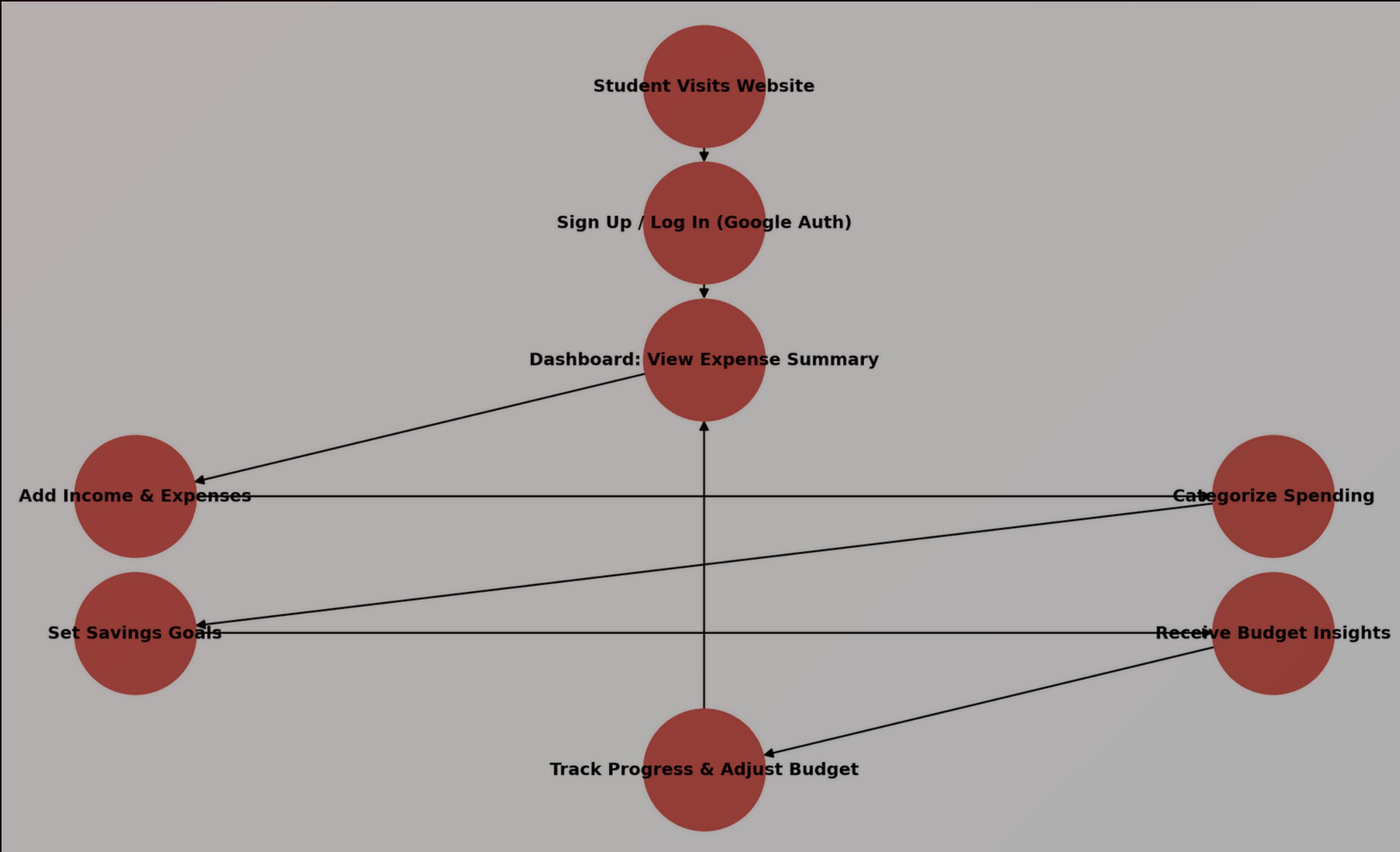
SOLUTION OVERVIEW

“To address student’s budgetting challenges, we propose a web-based Student Expense and Budget Tracker

“UniBud”

It simplifies expense management and savings planning. Our solution enables students to log expenses, categorize spending, set financial goals and receive AI-driven insights for better financial management.”

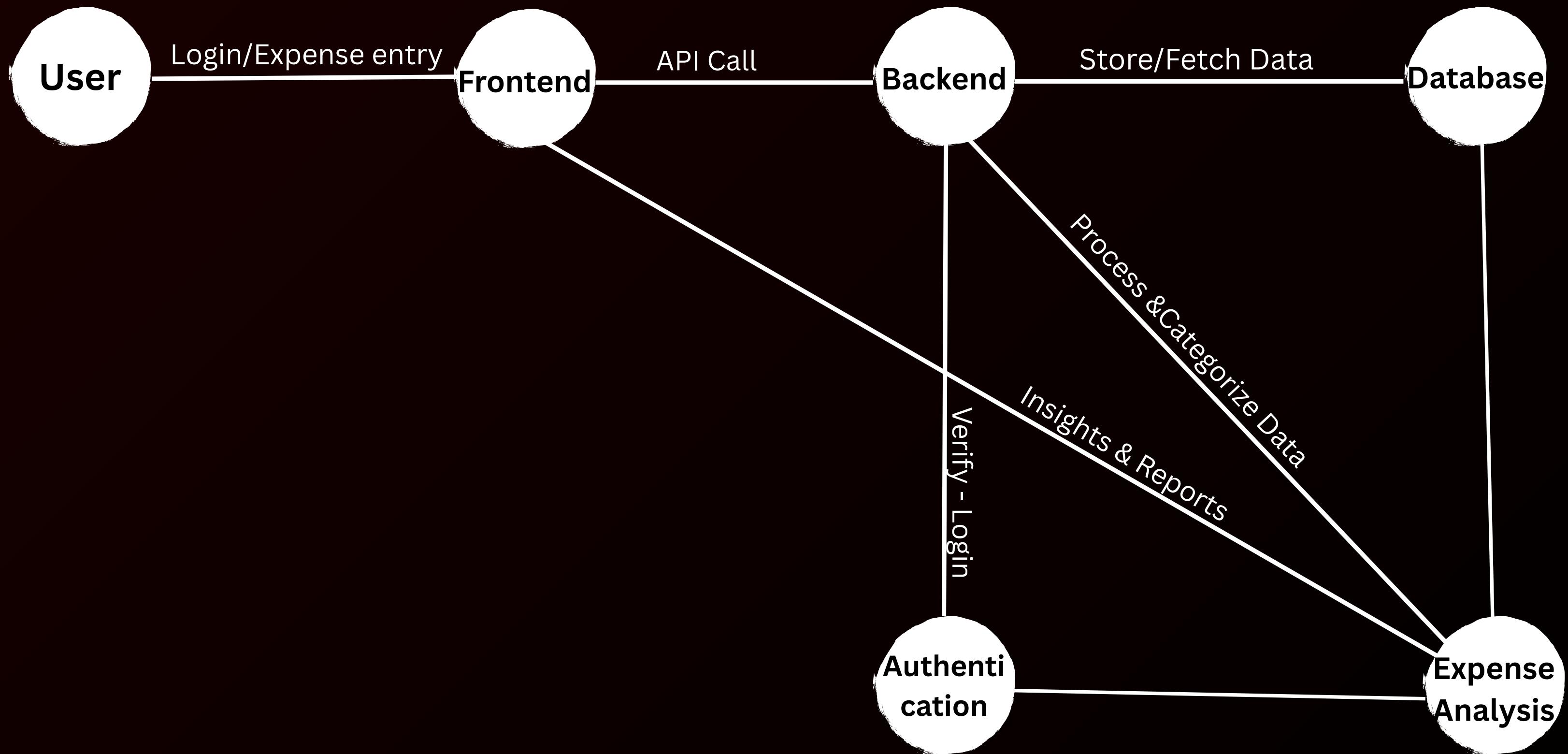
FLOW CHART



KEY FEATURES

- ◆ Expense Logging - Quickly add and categorize expenses in few taps.
- ◆ Budget Planning - Set monthly budgets and track spending.
- ◆ Smart Analytics - AI driven insights on spending patterns.
- ◆ Secure Data Storage - Encrypted expenses protection for privacy.
- ◆ Cross-Platform Accessibility - Accessible on any device with a browser.
- ◆ Reminders and Alerts - Notifications for budget limits & upcoming bills.

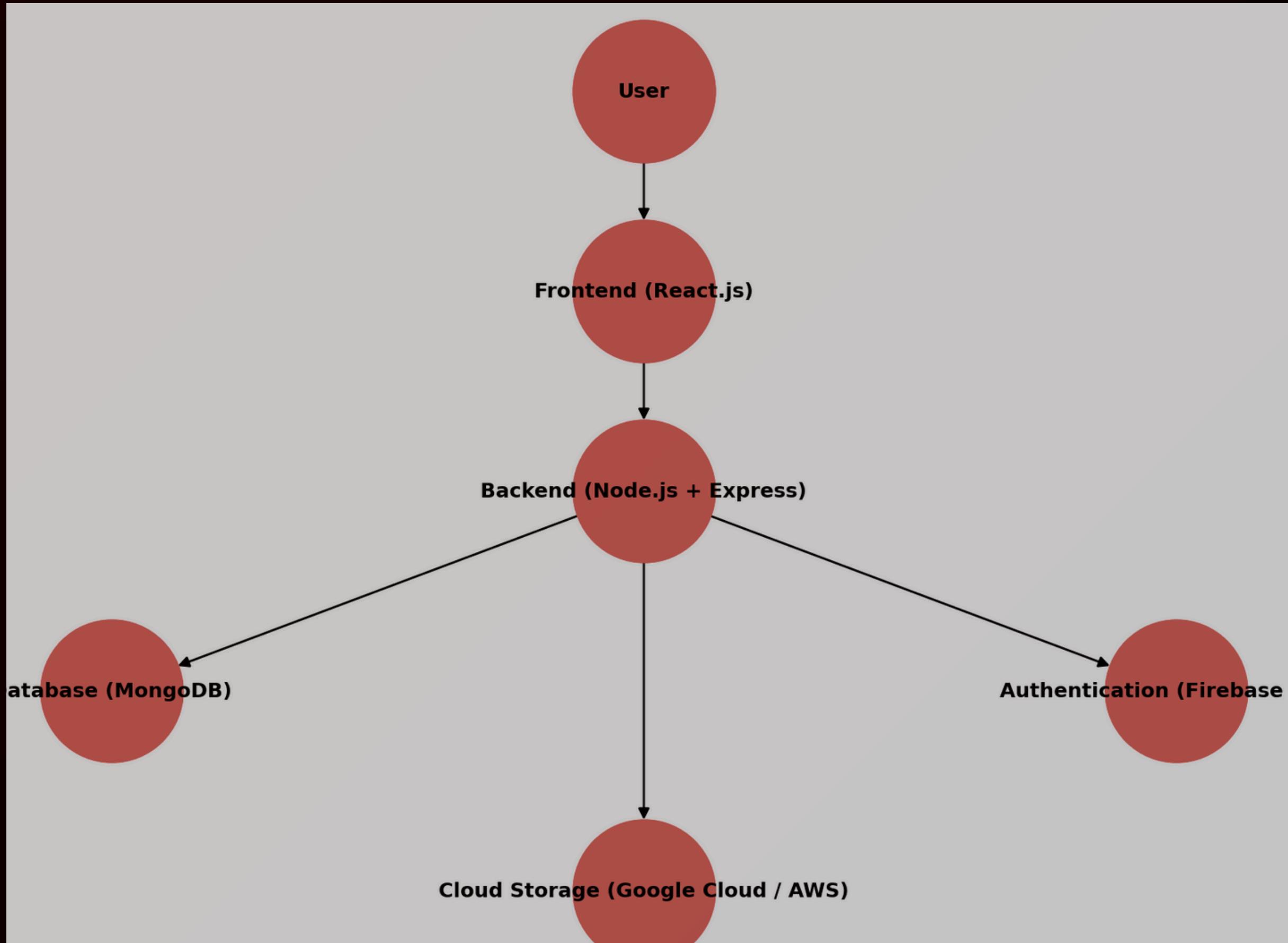
FLOW DIAGRAM

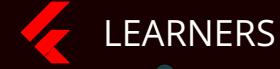


WHY A WEBSITE?

-  Accessible from any device - No need for downloads
-  Lightweight and fast - Works on low-end devices
-  Secure and scalable - Cloud based storage for flexibility
- ★ Modular structure allows easy feature additions in the future.
-  Role based access control for user permission.
-  No need for app store approvals or maintenance overhead.
-  CI/CD pipelines for automated updates and bug fixes.

PLANNED TECHNICAL ARCHITECHTURE





LEARNERS

TECHNOLOGY STACK

Frontend (User Interface)

Framework : React.js , BASIC WEB TECHNOLOGIES FOR SIMPLE UI.

BACKEND (Server and API Handling)

Django/Node.js (Data processing for reports)

DATABASE (Data Storage)

MySQL (Structured, reliable database) or Firebase

Authentication (User Login)

Basic email and password login using PHP/PYTHON

AI POWERED INSIGHTS

Data Collection & Preprocessing :-

- Python (Pandas, NumPy) – For handling and analyzing expense data.
- Node.js (Express.js) – Backend for processing AI requests.

Machine Learning for spending insights

- Tensorflow - For training models on spending patterns.
- Google Vertex AI - If you want a managed ML solution.

Data Storage & Security :-

- MongoDB
- Firebase Firestore - For real time sync.

CONCLUSION & CALL TO ACTION

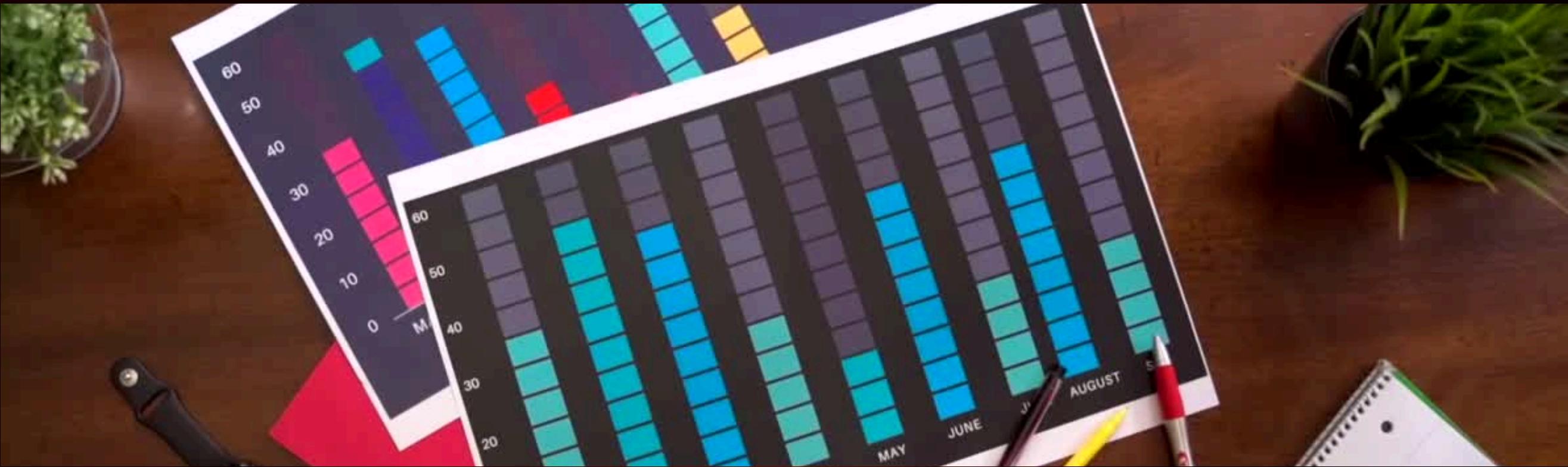
“Our Student Expense & Budget Tracker simplifies financial management for students by offering easy expense tracking, insightful analytics, and smart budgeting tools.”

Future Scope

“We plan to enhance it with AI-powered spending insights and UPI integration for automated tracking.”



“Empowering students to take control of their finances—because every rupee counts!”



THANK YOU