FlowTrack

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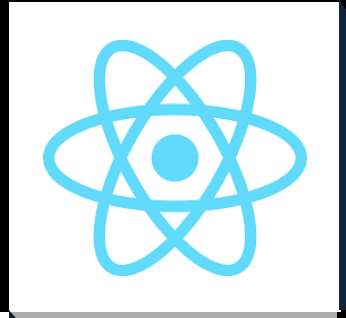
What is FlowTrack?

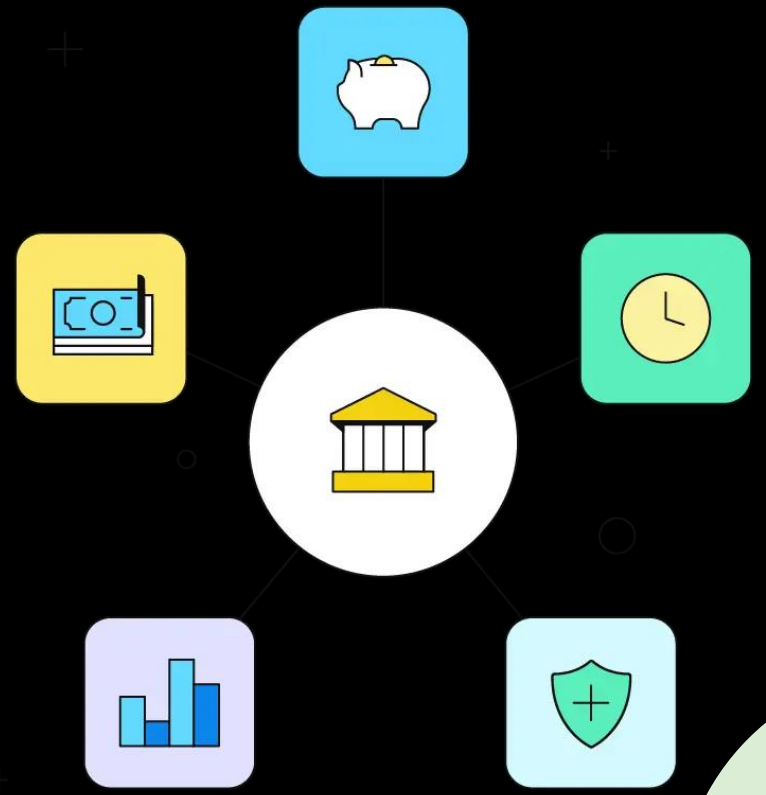
- FlowTrack consolidates fragmented financial data from multiple tools and departments.
- Integrates key features: transaction tracking, cash flow management, business overviews, and spending forecasts.
- Allows businesses to monitor financial health in real time.
- Enables precise tracking of income and expenses.
- Empowers businesses to confidently project future financial goals.
- Streamlines financial planning for better control and insight.



Technical Architecture

- **Frontend**: React provides an interactive, responsive interface for transaction history and cash flow statements.
- **Backend**: Java handles core logic, data processing, and workflow management.
- **Database**: MySQL stores critical financial data, such as bank accounts, transactions, and forecasts.
- **API Integration**: Plaid API pulls real-time bank data for up-to-date financial insights.
- **Testing**: Postman ensures accurate REST API endpoint functionality and dependable data delivery.

How Plaid Works



Track Transactions

Allows businesses to track all financial transactions.

How It Works:

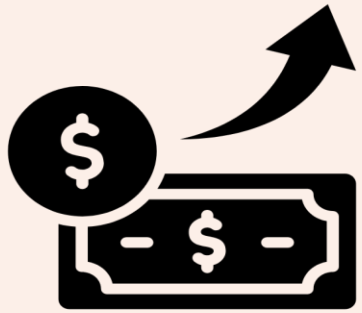
1. User logs in
2. User links a bank account using Plaid Link
3. App fetches transactions from Plaid
4. Users can filter & categorize transactions

What It Does:

- Real-time transaction tracking
- Provides categorized transaction views
- Gives clear snapshot of financial activity without manual entry

Key Benefits:

- Time saver
- Enhances financial visibility
- Lightweight and Efficient



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Business Overview & Create Statements

- **How It Works**
  - Categorizes and summarizes data into
    - Total Revenue & Expenses
    - Net Cash Flow
  - Displays a summary of user's expenses
- **What it Does**
  - Dynamic filtering of months and years to generate statement sheets
  - Automatically groups revenue and expenses by category
- **Why It is Useful**
  - Helps users understand their financial trends over time
  - Visual representation of category breakdowns throughout all accounts

Forecast Spending

- **What It Does**
  - Predicts your spending for the next 3 months
  - Breaks it down by category: Food, Travel, Bills, etc.
  - Shows results in a bar graph
- **How It Works**
  - Pulls 6 months of past transactions via Plaid
  - Calculates weighted averages—recent spending matters more
  - Maps forecasts to 9 key categories with defaults for gaps
- **Why It is Useful**
  - Simplifies budgeting with clear visuals
  - Adapts to your spending habits over time
  - Helps you plan ahead, no guesswork needed

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Demonstration

Lessons Learned and Next Steps

- **Lessons Learned**
  - API testing and integration into the application
  - Robust project planning and system design
  - Visualization drives user understanding
  - Adequate resource allocation and task prioritization
- **Next Steps**
  - Expand the number financial statement types that can be generated (Balance Sheets, Income Statements, etc.)
  - AI Integration to help streamline budgeting and forecasting
  - Incorporate more data visualization tools to improve user experience
  - Add ways to track not only transactions but also liabilities, such as Loans

Questions and Answers