



# HackOrbit 2025

## TECH NOVA

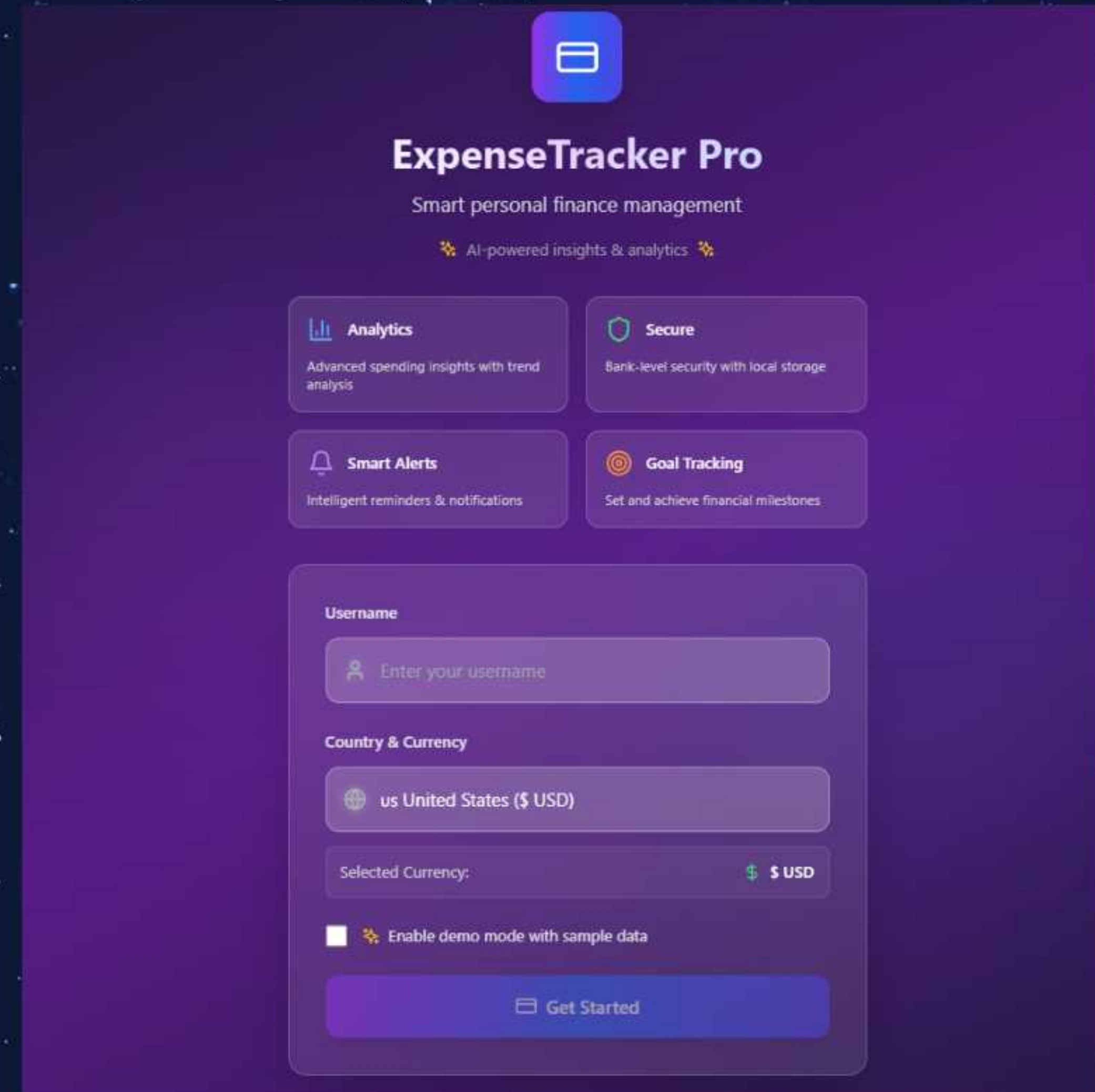
"Tech-Nova – Where AI Meets Financial Precision."



# **PROBLEM STATEMENT :-**

## **AI & ML for Smart Personal Finance**

“Most people don’t realize they are overspending until it’s too late. In today’s digital world, where transactions are fast and frequent, there’s no smart system that can predict future expenses or warn users before they overspend. This leads to poor financial habits and money stress ,especially in categories like food, shopping, and lifestyle.”



The image shows a mobile app interface for "ExpenseTracker Pro". At the top is a blue header with a white wallet icon. Below the header, the app title "ExpenseTracker Pro" is displayed in white, followed by the subtitle "Smart personal finance management" and a tagline "AI-powered insights & analytics" flanked by two small star icons. The main content area features four purple rounded rectangular cards arranged in a 2x2 grid. The first card is titled "Analytics" with a bar chart icon and the text "Advanced spending insights with trend analysis". The second card is titled "Secure" with a shield icon and the text "Bank-level security with local storage". The third card is titled "Smart Alerts" with a bell icon and the text "Intelligent reminders & notifications". The fourth card is titled "Goal Tracking" with a target icon and the text "Set and achieve financial milestones". Below these cards is a white rounded rectangular form with a light gray border. The form contains a "Username" section with a text input field and a placeholder "Enter your username". Below that is a "Country & Currency" section with a dropdown menu showing "us United States (\$ USD)". Underneath the dropdown is a "Selected Currency:" label followed by a green "\$ USD" button. At the bottom of the form is a checkbox labeled "Enable demo mode with sample data" and a large blue "Get Started" button with a white wallet icon.



# PROPOSED SOLUTION

An expense tracker that uses AI to:

## 1. Predict next month's expenses



## 2. Give smart money-saving tips

### Investment Plan

Start investing for long-term growth

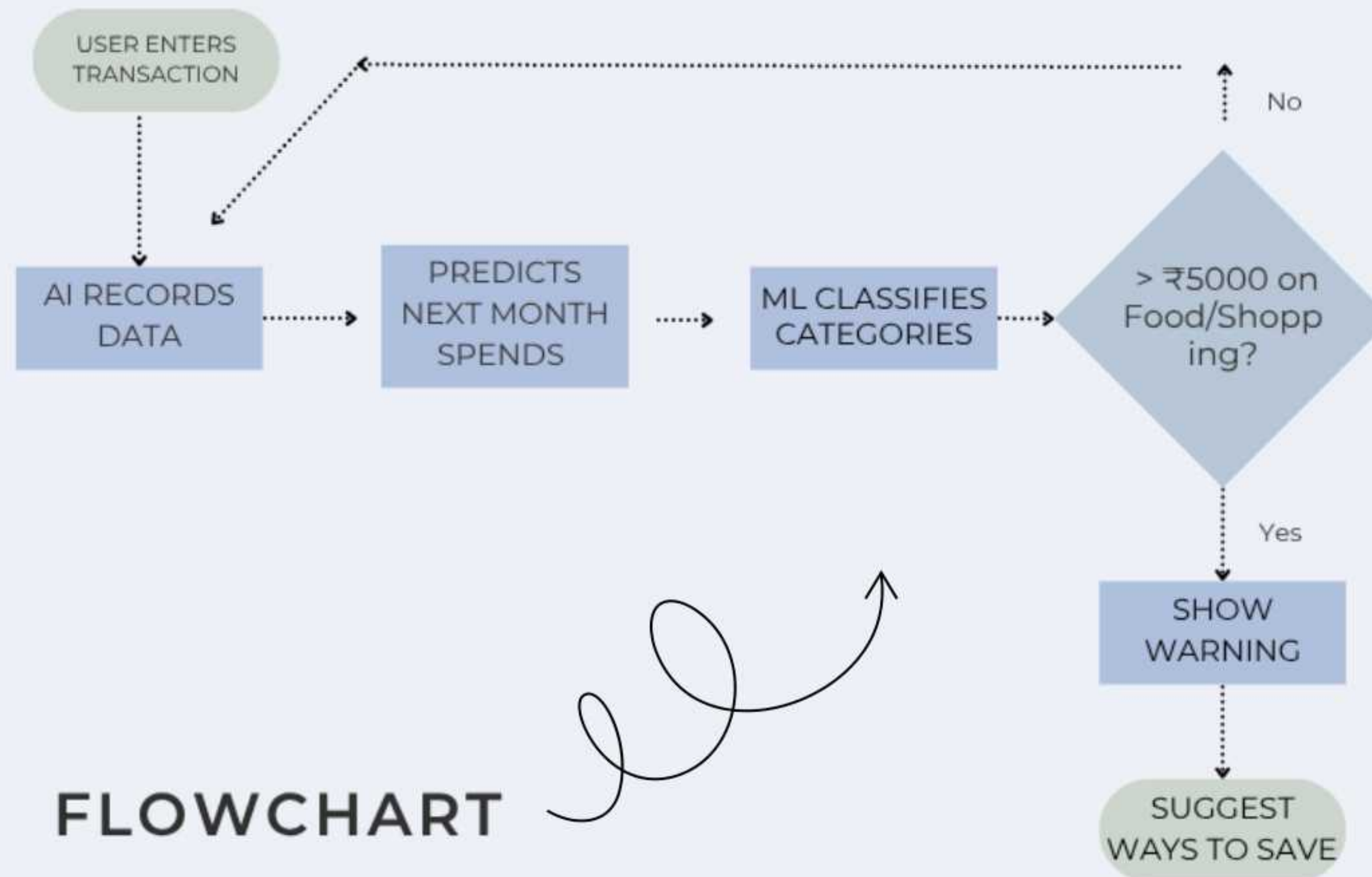
### Set Monthly Budget

Create spending limits for each category

## 3. Show warnings pop up if food/shopping goes over ₹5000







FLOWCHART



# **FLOWCHART / DIAGRAM**

- The user starts by entering their daily or monthly expenses into the app. Once the data is added, the AI system analyzes previous spending patterns and predicts how much the user might spend in the upcoming month.
- Next, a Machine Learning model categorizes each expense into types such as food, shopping, travel, etc. If the system detects that the predicted spending in food or shopping categories is likely to exceed ₹5000, it immediately triggers a warning, shown pop up to alert the user.
- In the end, the app gives easy tips like spending less on takeout or shopping, so users can save more and manage their money better.

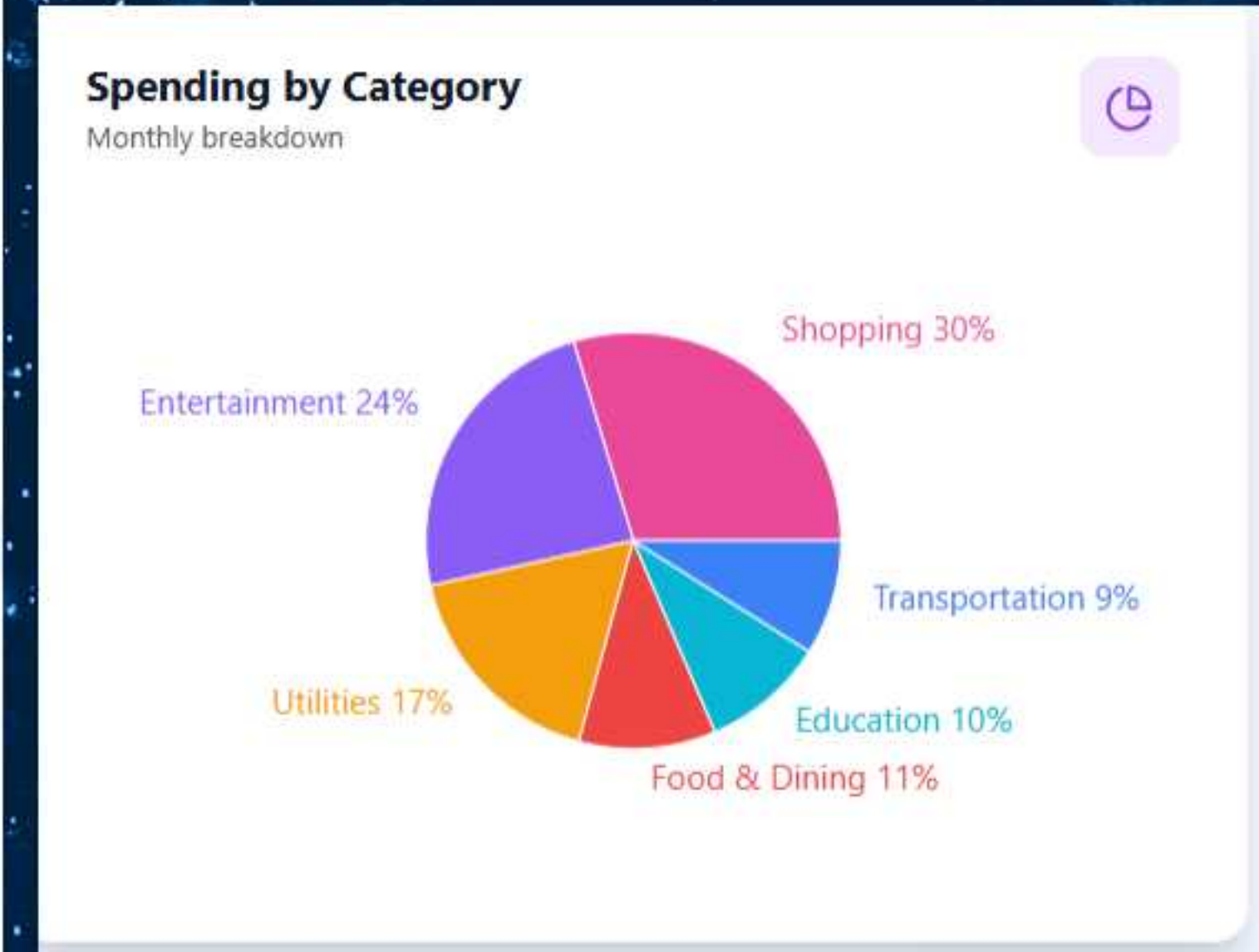


# FEATURES

- Shows income, expenses, and balance clearly.
- Pie charts and graphs to understand spending.
- Forecasts next month's expenses using past data.
- Gives alerts when expenses go beyond limits.
- Offers savings tips based on user habits

# NOVELTY

- Suggests actions to improve spending.
- Helps track financial goals easily.
- Gives personal advice, like a mini finance guide.





## **DRAWBACKS:**

- Needs manual entry of transactions.
- Expense alerts are fixed, not adjustable.
- Doesn't connect with bank accounts yet.
- Predictions may miss unexpected spending.

## **SHOWSTOPPERS:**

- Doesn't work without internet.
- No login security like OTP or 2-step.
- Not ready for large number of users.
- Users can't see how predictions are made.



# TECHNOLOGIES USED

## Frontend

- React (with TypeScript) – Building modern UI with type safety
- Vite – Fast build tool for rapid development
- Tailwind CSS – Utility-first CSS for responsive, clean design

## Components

- Modular structure with components like: Dashboard.tsx, Analytics.tsx, TransactionForm.tsx, etc.

## AI & ML Logic

Custom ML logic in predictor.ts

- Predicts next month's expenses using simple pattern analysis
- Gives early warnings if categories (e.g., food/shopping) exceed ₹5000



# TECH NOVA

## TEAM MEMBERS DETAILS

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THANK  
YOU