FundMate

AI Powered Personalized Funds Manager for Students.

Presented By 3 Idiots

INTRODUCTION

🎯 **Problem Statement :** Students often face challenges in managing their limited and irregular finances due to a lack of personalized guidance and real-time support. Existing budgeting tools fail to address the unique financial behavior and needs of students, leading to poor money management and financial stress.

💡 **Proposed Solution :** This intelligent assistant provides a conversational interface where students can effortlessly:

- **Log expenses and income using natural language (e.g., 'Add ₹500 from scholarship on 15th April')**
- **View categorized spending and monthly summaries**
- **Set savings goals and receive personalized financial insights**
- **Engage with a user-friendly and accessible system available 24/7**

By integrating Natural Language Processing (NLP), contextual understanding, and personalized financial tracking.

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02

✖ Our Mistakes & Learning Points

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Lack of Early Data Balancing
- Initially trained the model on an imbalanced dataset, which affected prediction accuracy for less-represented intents.

Limited Intent Coverage
- Missed edge-case scenarios like slang, spelling mistakes, or compound queries in natural language inputs.

Basic Model Selection
- Started with Logistic Regression for simplicity, which limited performance on complex sentence structures — later realized more advanced models (e.g., transformers) could significantly improve accuracy.
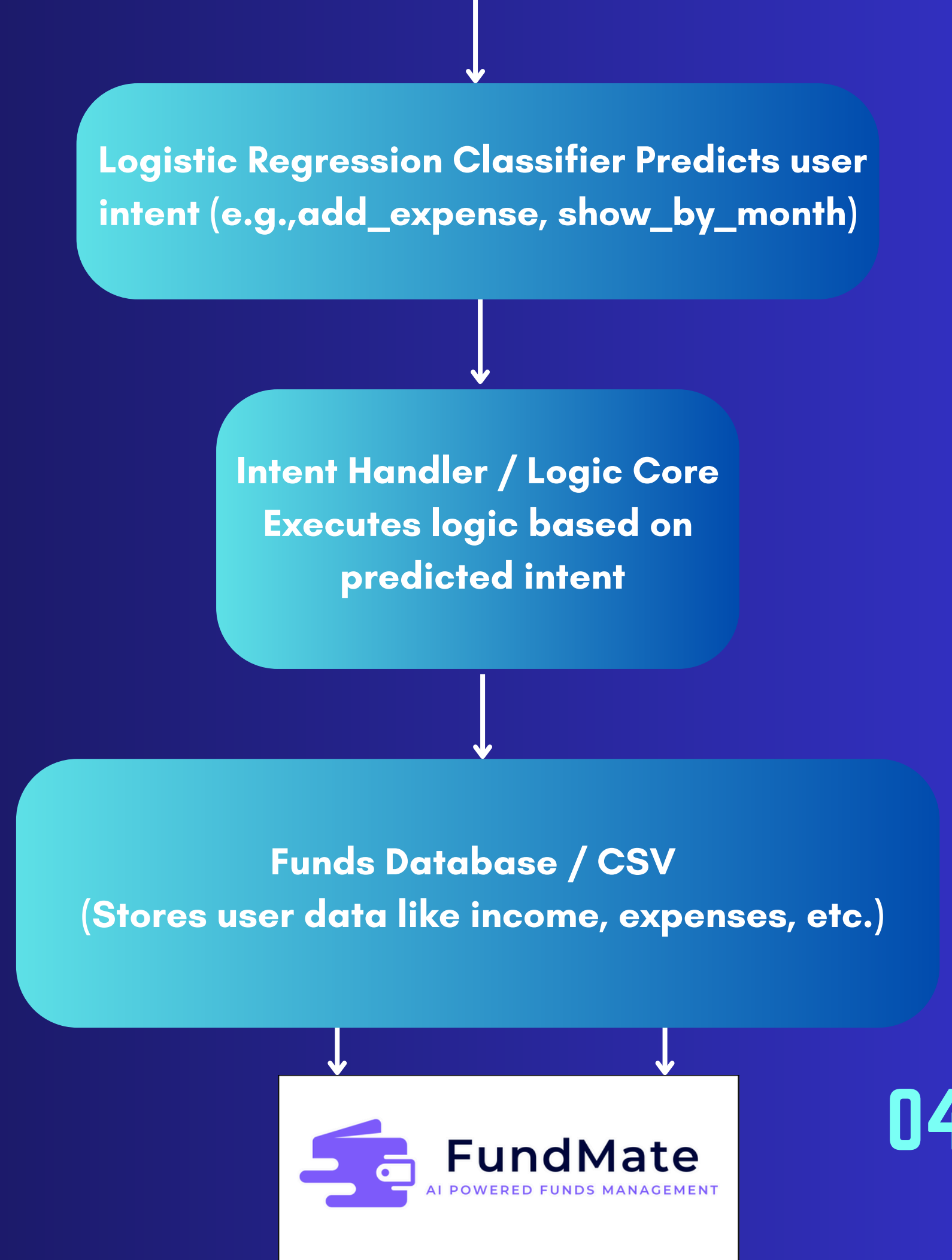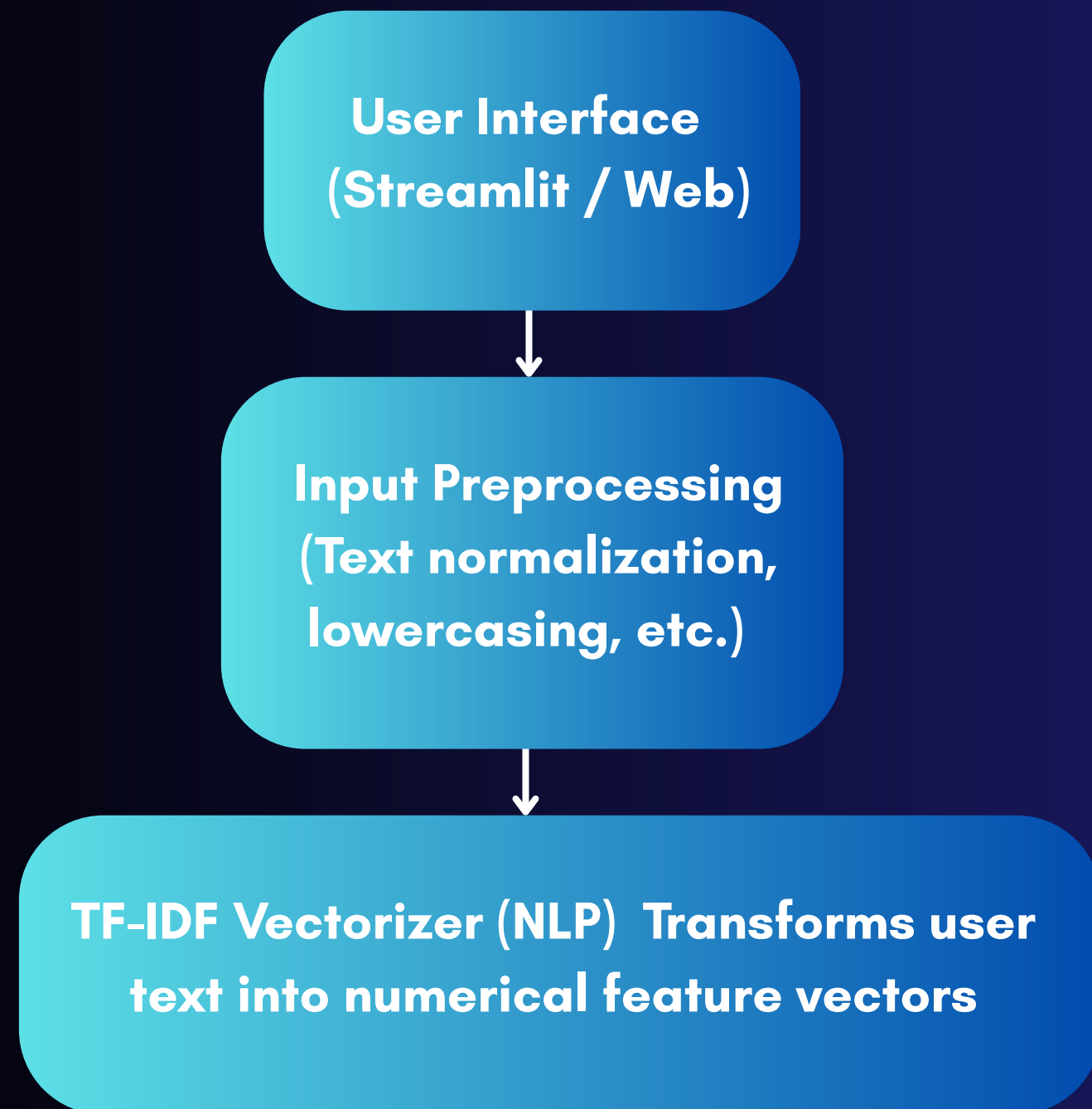
Insufficient Error Handling
- Didn't anticipate or manage scenarios like missing files, bad data paths, or undefined user queries gracefully in the early versions.
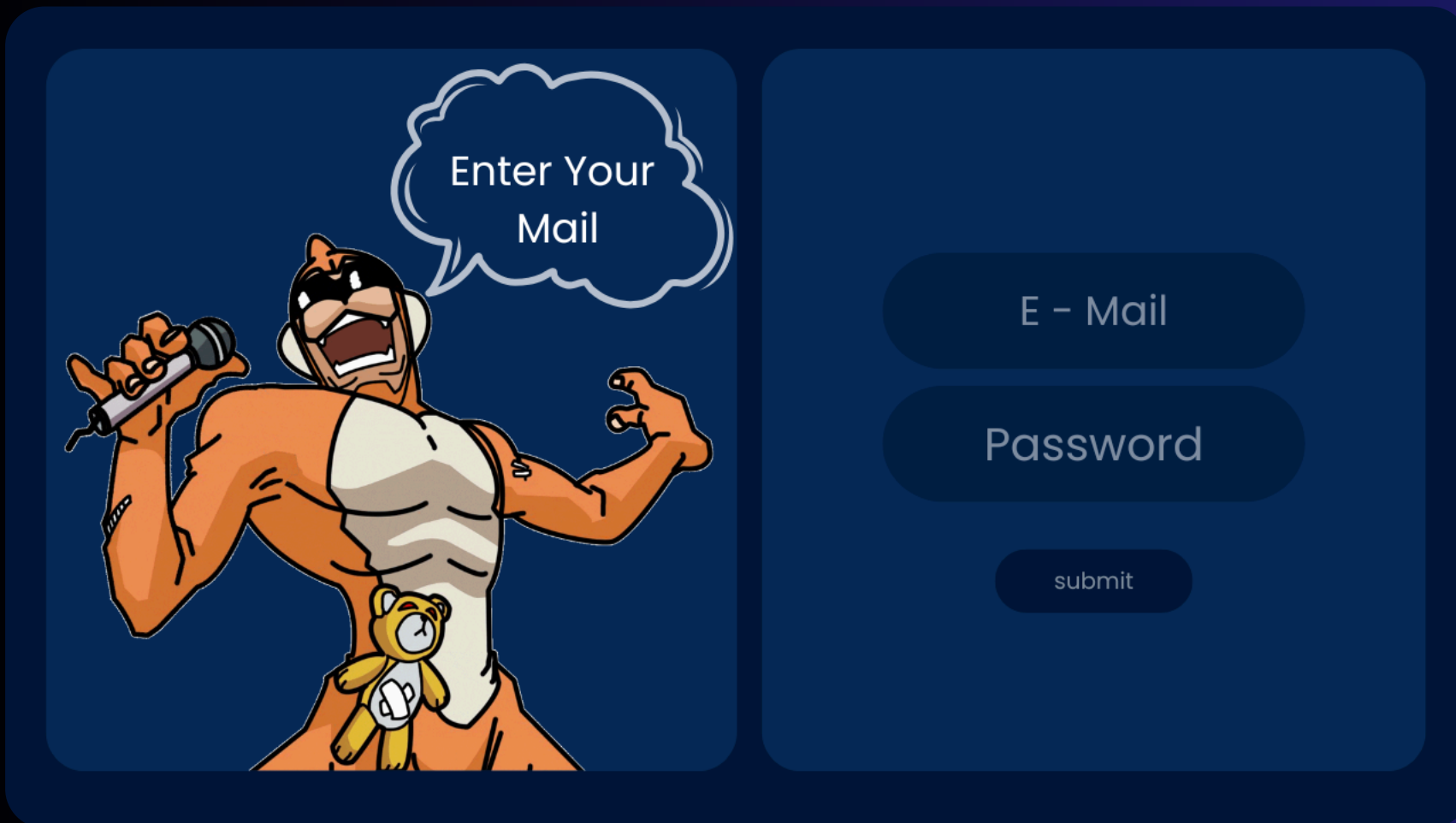
Minimal User-Centric Testing
- Focused more on functionality than UX, leading to overlooked improvements in chatbot responses and usability from a student's perspective.

App's 🧱 Architecture

User Interface (Streamlit / Web)

Input Preprocessing (Text normalization, lowercasing, etc.)

TF-IDF Vectorizer (NLP) Transforms user text into numerical feature vectors

Logistic Regression Classifier Predicts user intent (e.g.,add_expense, show_by_month)

Intent Handler / Logic Core Executes logic based on predicted intent

Funds Database / CSV (Stores user data like income, expenses, etc.)

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04

Our App's Aperience

1) 🎮 Interactive Student Finance Chatbot UI
This is a gamified, visual interface of our AI-driven funds management assistant for students.
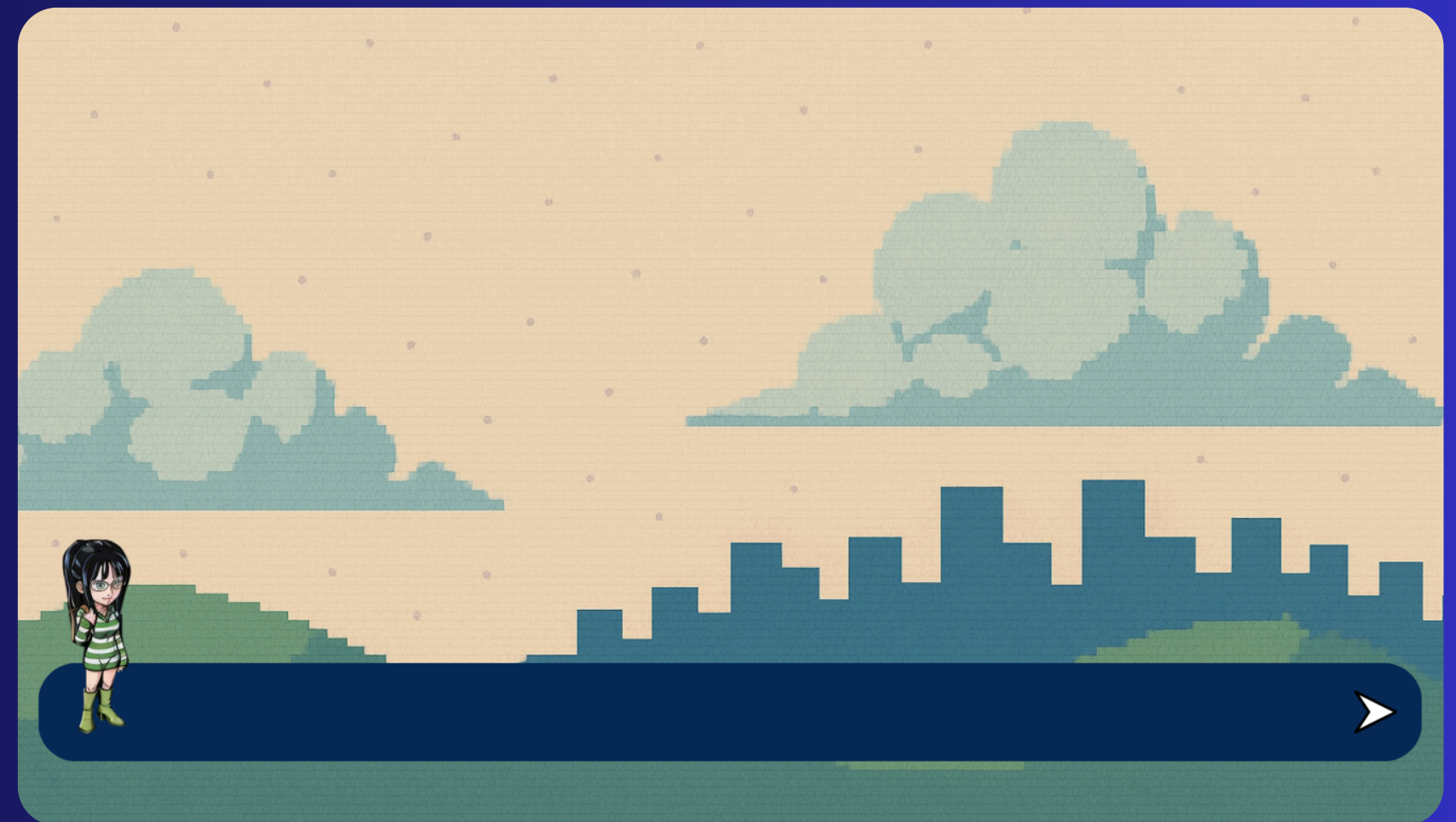The character-based design adds a friendly and engaging touch to budgeting tasks.
A speech bubble interface allows smooth, story-like conversation with the bot.
It bridges functionality with fun, making financial literacy more approachable and enjoyable.
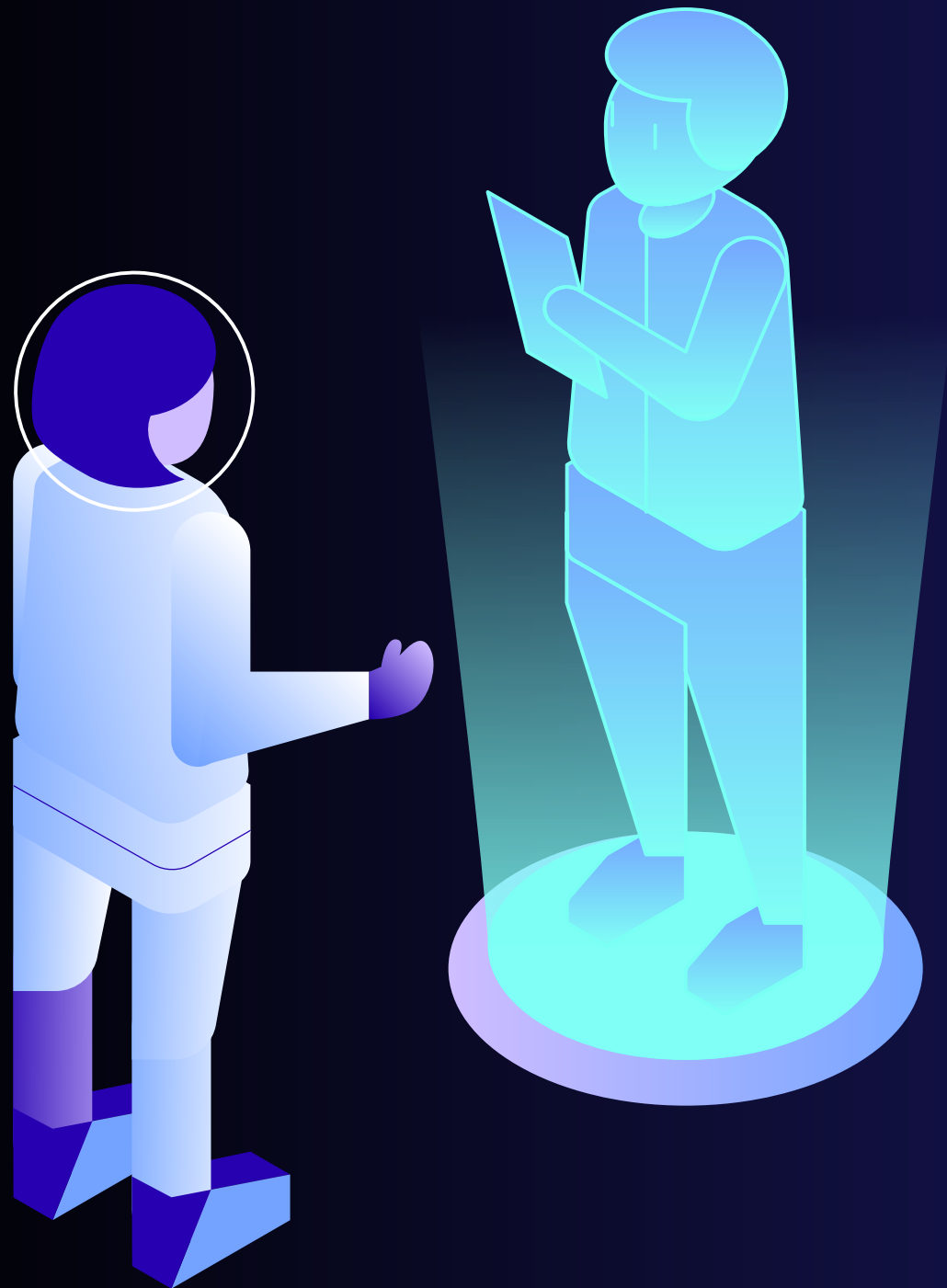
2) 🎨 Gamified Login Interface
This animated login screen combines humor with functionality using a dynamic cartoon mascot.
The playful prompt "Enter Your Mail" adds a light-hearted, engaging vibe for users.
This design enhances user experience by making onboarding fun and memorable.

Enter Your Mail

E - Mail

Password

submit

FUTURE INNOVATIONS

🌐 1. Voice-Based Interaction :

Feature: Enable students to talk to the chatbot using speech instead of typing.

Tech Stack: Integrate with speech-to-text APIs (like Google Speech API or Whisper by OpenAI) + TTS for replies.

Why It's Futuristic: It mimics a real financial assistant and enhances accessibility for visually impaired users or students on-the-go.

📊 2. AI-Powered Spending Predictions & Alerts :

Feature: Predict future expenses based on habits (e.g., "You're likely to spend ₹1,200 next month on travel") and send smart alerts (e.g., "⚠ You're about to exceed your food budget!")

Tech Stack: Time-series models (Prophet / LSTM) + pattern recognition.

Why It's Futuristic: Transforms your app from reactive (tracking) to proactive (advising and warning).

💳 3. Bank Account & UPI Integration :

Feature: Securely link with student's bank accounts or UPI apps to automatically track transactions and categorize them.

Tech Stack: Use APIs from services like Plaid, Finbox, or Setu (India-based) with proper data privacy.

Why It's Futuristic: Eliminates manual input and builds a real-time, smart finance companion — fully personalized.

Meet The Team

- **Rahul Banyala**
- **Himanshu Kumar Singh**
- **Tilak Popat**
- **Khush Upadhyay**

THANK YOU

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