

# OpenAI x NxtWave Buildathon

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**Branch:** Computer Science and Engineering

**Year of Study:** 4th Year

**Team Size:** 2

## **Problem Statement:-**

Budgeting tools today are fragmented. Travelers struggle to plan vacations within budget, and individuals often overspend on groceries, dining, rides, and subscriptions due to lack of unified planning. There's no smart assistant that helps users manage their entire lifestyle budget in real time.

## **Solution Overview:-**

**BudgetVerse** is an AI-powered lifestyle planner that helps users create and follow smart budgets across every aspect of life—from travel bookings to groceries, dinners, rides, and subscriptions. It offers personalized plans based on user goals, habits, and live pricing data. Users receive alerts, suggestions, and savings strategies to stay on track effortlessly.

## **Key Features :-**

- **Unified Budget Engine:** Combines travel, groceries, dining, subscriptions, and rides into one smart planner.
- **Live API Sync:** Connects with services like Uber, Zomato, IRCTC, Amazon, and Google Maps for real-time pricing.
- **Routine-Aware Planning:** Suggests budget-friendly routines based on user behavior.
- **Smart Alerts:** Notifies users when they're overspending and offers alternatives.
- **Goal-Based Budgeting:** Helps users save for specific goals (e.g., ₹5,000 for a Goa trip).
- **Gamified Savings Tracker:** Rewards users for sticking to their budget plans.

## OpenAI API Integration

- **GPT-4:** Generates personalized budget plans and conversational suggestions.
- **Embeddings:** Matches user goals with deals, offers, and optimized spending paths.
- **Function Calling:** Simulates booking actions, generates routines, and triggers alerts.
- **Moderation API:** Ensures safe and professional content generation.

## Tech Stack

- **Frontend:** React.js
- **Backend:** Node.js + Express.js
- **Database:** MongoDB
- **AI Layer:** OpenAI APIs
- **External APIs:** Uber, Zomato, IRCTC, Google Maps
- **Deployment:** Vercel / Render

## Feasibility & Execution Plan

**Phase 1:** Build core MERN stack app with user authentication and budget modules

**Phase 2:** Integrate OpenAI APIs for smart planning and chat interface

**Phase 3:** Connect external APIs for live pricing and booking simulations

**Phase 4:** Deploy MVP and test with college users **Phase 5:** Add gamification, analytics dashboard, and mobile support