

# Odoo x CHARUSAT Hackathon

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## 1. Team Information

Team Name: **PROSPERIFY**

Team Members:

- **Punja Kuchhadiya** – AI/ML Developer & Project Lead (Python, Langchain, ChromaDB, Flask)
  - **Vishvam Moliya** – AI/ML and Frontend Developer(React, NextJS, Web3, Python)
  - **Drashti Mistry** – Full Stack Developer (Embedded JavaScript, Node Js, Express js, PostgreSQl, Mongo DB)
  - **Kriti Anand** – Project Management and Research (Python, Management, Pitching)
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## 2. Problem Statement

**Chosen Problem:**

**Middle-class households** struggle with **financial planning** due to a lack of accessible, personalized **guidance**. Managing monthly budgets, investment decisions, child education planning, and retirement savings is **complex**, and most of the tools available are very costly, making them **unaffordable** for many families.

Additionally, many **people lack basic financial knowledge** and struggle to understand financial **terminologies and buzzwords**. This creates a barrier to making informed financial decisions. A solution is needed to not only **provide financial guidance** but also educate users about financial concepts in a simple and accessible manner.

**Problem Analysis:**

- **Financial Education Gap** → Many people lack basic financial knowledge and struggle to understand financial terminologies, making it difficult to make informed decisions.
- **Budgeting Challenges** → Difficulty in tracking expenses, managing savings, and avoiding overspending.
- **Investment Confusion** → Not knowing where to invest (FDs, mutual funds, stocks, real estate) based on financial goals.
- **Future Planning Struggles** → Lack of structured planning for child education and retirement.

- **Debt & EMI Management** → Uncertainty in handling home loans, car loans, and credit card debts.
- **Lack of Financial Knowledge** → Many people do not understand basic financial concepts, making it harder to make informed decisions.
- **Language Barriers** → Many financial tools are only available in major languages, making it hard for non-English speakers to access financial guidance.

#### **Target Audience:**

- Middle-class families trying to optimize their monthly budgets.
  - Parents planning for child education and future expenses.
  - Individuals confused about investment strategies and tax savings.
  - Working professionals and retirees planning for long-term financial security.
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### **3. Solution Overview**

#### **Brief Explanation:**

Our solution is an **AI-powered financial planning chatbot** that provides personalized budgeting, investment guidance, and future financial planning tailored to each user's financial situation. The **chatbot remembers past conversations** and stores user data to make **more accurate decisions** in the future and offers structured plans for users looking to manage their income, reduce unnecessary expenses, and invest wisely for their future goals.

Our chatbot assists users in **understanding financial concepts**. Apart from personalized financial guidance, the chatbot can **answer general finance-related questions**, helping users grasp financial terminologies, investment principles, and budgeting fundamentals.

Our chatbot provides **multilingual support**, ensuring accessibility for users from different linguistic backgrounds.

#### **Approach:**

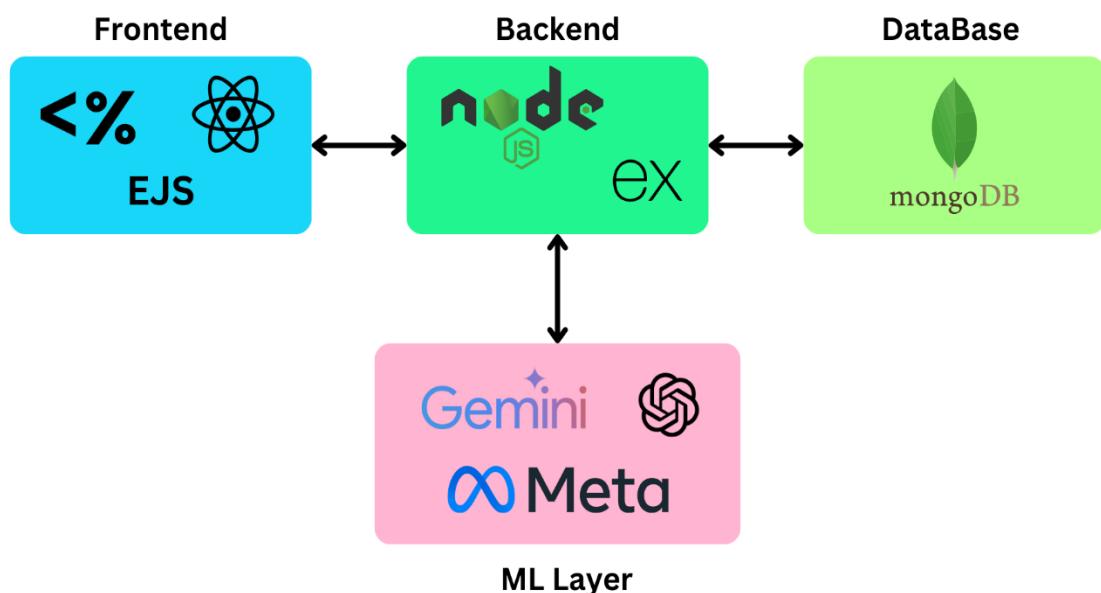
1. **User initiates a financial conversation** via text or voice.
2. Chatbot **remembers the user's financial history** to provide ongoing guidance.
3. **Budget planning assistance:** Helps users allocate their income efficiently.
4. **Investment recommendations:** Suggests FDs, mutual funds, stocks, or real estate based on user risk appetite.

5. **Future financial planning:** Provides step-by-step saving strategies for retirement and child education.
6. **Debt & EMI management:** Helps users clear debts faster by optimizing loan payments.
7. **Financial education support:** Assists users in understanding financial concepts by answering general finance-related questions in simple terms.

#### **Uniqueness:**

- Empowers Users with Financial Understanding** → Helps users comprehend financial concepts instead of blindly following advice.
  - Personalized Budget Planning** → Tailored to user's monthly income and expenses.
  - Investment Guidance** → Suggests best options based on risk appetite and goals.
  - Future Financial Planning** → Child education, retirement, and wealth management strategies.
  - Conversational Memory** → Chatbot remembers past discussions to refine future advice.
  - Simple & Accessible** → Designed for everyday users with no financial expertise.
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## **4. Frameworks/Technologies**



### **Frontend:**

- **React Js/ EJS** (Embedded JavaScript) → Clean Minimalistic Chatbot UI
- **Tailwind CSS** (Optional) → Clean UI design

### **Backend:**

- **Express.js** (Node.js) → API handling
- **PostgreSQL / SQLite** → Storing financial rules & user queries
- **Redis** → Storing chat history for conversational memory

### **AI & Chatbot Logic:**

- **Python** (Flask/FastAPI) → AI processing engine
- **DeepSeek / Llama 2** → LLM for generating smart responses
- **LangChain** → AI workflow management
- **RAG Model** (Retrieval-Augmented Generation) → Provides educational financial answers based on retrieved knowledge.
- **ChromaDB/FAISS** → Stores and retrieves financial data for accurate responses.
- **Financial APIs** → Fetching real-time investment rates and tax-saving options
- **Preloaded Financial Datasets** → Budget planning formulas, tax deduction details, and investment data

### **Voice & Accessibility (Optional):**

- **Google Translate API** → Translate queries from any language to English and responses back to the user's language
  - **Google Speech-to-Text API** → Convert voice input to text
  - **Google Text-to-Speech API** → Convert AI responses to voice
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## 5. Feasibility & Implementation

The implementation of the **RAG model** will ensure that users not only receive financial guidance but also gain **financial literacy** by asking any finance-related question. The system will retrieve information from a **curated financial knowledge base**, ensuring accurate and up-to-date explanations.

### Implementation Ease:

#### Development will be done in parallel:

- AI Model (Python, FastAPI) → AI/ML Developer
- Frontend (EJS, Node.js) & Backend (Express.js) → Full Stack Developer

### Estimated Timeline:

Phase	Task	Time Estimate
Phase 1	Core chatbot logic & financial datasets	6 hours
Phase 2	AI model integration (DeepSeek/Llama 2)	5 hours
Phase 3	UI + Backend API setup	5 hours
Phase 4	Testing & Debugging	3 hours

### Challenges & Solutions:

Challenge	Solution
<b>Training an AI model on accurate financial data</b>	Use retrieval-based techniques (RAG) instead of fine-tuning
<b>Ensuring chatbot remembers previous conversations</b>	Use Redis or a vector database for persistent chat history
<b>Accuracy in investment suggestions</b>	Use trusted sources like government financial datasets & market APIs

## 6. UI/UX Mockup

The image displays a composite UI/UX mockup for a financial platform named "Prosperify".

**Header:** The top navigation bar is dark grey with the "Prosperify" logo on the left and links for "Home", "About", "Features", "Log In", and "Sign Up" on the right.

**Hero Section:** A large dark grey banner features the headline "AI Meets Finance: Personalized Money-Saving Strategies for Every Household..!" in white, followed by a subtext "AI-driven financial guidance to help you save, invest, and grow." and a "Get Started" button.

**Call-to-Action:** Below the hero section is a light grey box containing the heading "Ask Our AI Advisor!" and the subtext "Chat with our AI for personalized financial tips.", with a "Start Chatting Now" button.

**Why Choose Prosperify?**: This section lists four benefits in white boxes:

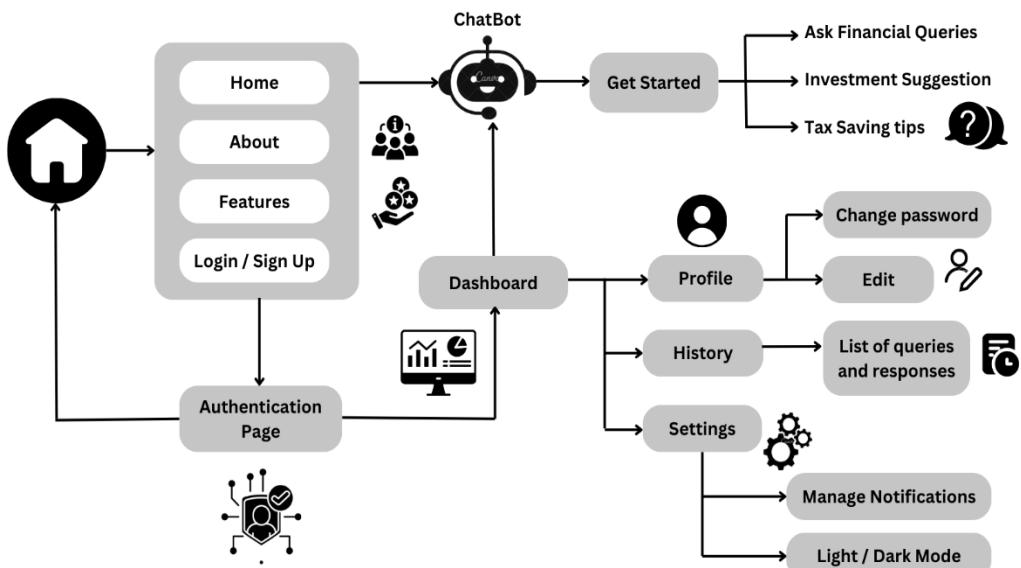
- AI Financial Advisor**: Get personalized insights on savings & investments.
- Smart Budgeting**: Track expenses & plan smartly.
- Govt. Schemes**: Find subsidies & financial aid for your needs.
- Small Business Support**: Guidance for growing your small business.

**AI Chatbot Interface:** A large, rounded rectangular box contains the following elements:

- A green robot icon above the heading "AI Chatbot".
- A message input field with the placeholder "Hello! How can I assist you?".
- At the bottom, there are three buttons: "Language" (with a globe icon), a text input field "Ask your questions...", a microphone icon, and a "Send" button.

### User Flow:

1. **Login/Register Page:** Users sign up using email or phone number.
2. **Home Page:** Displays chatbot interface with input box, voice input button, and **language selection option** for multilingual support.
3. **Chat Screen:** Users type or speak financial queries, chatbot responds dynamically. Users can also ask general finance-related questions, which will be answered by the **RAG model**.
4. **History Section:** Users can view past financial recommendations and chatbot interactions.
5. **Profile & Preferences:** Users can set financial goals, preferred investment options, budgeting preferences, and their **preferred language** for interactions.



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## 7. Business Scope & Use Cases

### Use Cases:

1. **Middle-Class Household Budgeting** → Helps families optimize their monthly expenses and savings.
2. **Investment Guidance for Working Professionals** → Provides options for FDs, mutual funds, and stocks.

3. **Child Education Planning** → Calculates future costs and suggests structured saving strategies.
4. **Retirement Planning** → Offers personalized pension and wealth-building strategies.
5. **Debt & EMI Optimization** → Helps users reduce loan burdens efficiently.

#### **Market Need:**

- **Many middle-class families struggle with financial planning.**
- **People lack clarity on smart investment decisions.**
- **AI-driven financial tools make wealth-building accessible and personalized.**
- People struggle to understand basic **financial terms, investment strategies, banking concepts** and **blindly follow someone's advices**.

#### **Revenue Model:**

- **Freemium Model:** Free users have limited message access, while paid users get unlimited access to financial advice and chatbot interactions.
  - **B2B Partnerships:** Collaboration with financial institutions and fintech platforms.
  - **Advertisement & Sponsorships:** Featuring financial service providers.
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## **8. System Design & Architecture**

### **System Components & Flow**

1. **User Interaction (Frontend - React Js)**
  - User types or speaks a financial question.
  - Request is sent to the backend via Express.js API.
2. **Backend Processing (Express.js + Python)**
  - Identifies whether the question is **guidance-related** or **knowledge-based**.
  - **Guidance-related questions** → Fetches data from financial APIs or user history.
  - **Finance-related educational questions** → Queries the **RAG model** for an answer.
3. **AI Model (Python - FastAPI/Flask)**
  - Uses **RAG (Retrieval-Augmented Generation)** for finance-related queries.

- Uses **LLM (DeepSeek, GPT-4)** for advanced financial analysis and guidance.

#### 4. Data Sources & Storage

- **Preloaded financial datasets** for budget planning & investment strategies.
- **Financial APIs** for real-time market rates.
- **ChromaDB/FAISS** for storing and retrieving financial knowledge.
- **Redis for conversation memory.**

