Project Name :

# **🌱 FinQuest: Gamified Goal-Based Finance Assistant**

### **Problem Statement**

Students often:

* Lack financial literacy and guidance.
* Don’t know which credit card, subscription, or savings strategy is right for them.
* Struggle to track spending and plan for goals (trips, budgeting, emergency funds).
* End up making wrong choices or doing nothing due to overwhelming info.

### **Solution**

**FinQuest** is a gamified personal finance tool designed for students.  
 It transforms saving and spending decisions into an **interactive journey** where users:

* **Set goals** (e.g., Europe trip, monthly budget, emergency savings).
* **Experiment with recommendations** (e.g., cancel Netflix, cut coffee, switch to student Spotify).
* **Visualize outcomes instantly** with “What-if” simulations.
* **Track progress and streaks** via subgoals.
* Stay motivated with a **garden-themed gamification system** (plants grow as users save, butterflies appear when goals are reached).

### **Key Features**

1. **Goal Setting Flow**
   * User picks goal type → enters amount + timeline.
   * System generates multiple saving strategies.
   * Interactive “What-if” simulator shows how each choice affects timeline.
   * User selects subgoals → added to main goal.
2. **Homepage Dashboard**
   * **Center**: Active goal progress bar.
   * **Left**: List of set goals (progress + streak tracking for subgoals).
   * **Right**: Garden visualization (growth tied to streaks & milestones).
   * **Bottom**: Button for spending visualization.
3. **Auto-Visualization Agent**
   * Dynamic analytics of spending categories.
   * Personalized recommendations (e.g., “You spend a lot on gas → consider XYZ credit card”).
4. **Gamification Layer**
   * Streaks → flowers bloom.
   * Achieving subgoals → butterflies appear.
   * Completing main goal → garden celebration animation.

### **Tech Stack**

* **Frontend**: React + Tailwind (for clean, responsive UI).
* **Backend**: FastAPI / Flask.
* **Data & Integrations**:  
  + Plaid API (transaction data) or mock data for hackathon demo.
  + Visualization: Matplotlib / Plotly for charts.
  + Auto-Visualization Agent: LangChain + LLM for dynamic chart generation.
* **Gamification & State Tracking**: Custom goal + subgoal tracking module.

### **Unique Value**

* Unlike plain budgeting apps, **FinQuest blends AI + gamification**.
* **Visualization-first** approach → users see *why* a recommendation matters.
* Simple metaphors (garden, streaks) make finance **engaging & approachable**.

### **Impact**

* Empowers students to build healthy financial habits early.
* Reduces decision fatigue by offering **personalized, actionable steps**.
* Makes saving fun, motivating, and rewarding.

### **Future Extensions**

* Peer savings challenges (leaderboards).
* Partnerships with banks/fintech sponsors (real student offers).
* AI-based subscription management (auto-detect and recommend cuts).
* Exportable progress visuals (social sharing).



