Hackathon Project Phases Template for the **Personal Finance Chatbot** project.

Hackathon Project Phase Template

Project Title:

Personal Finance Chatbot: Intelligent Guidance For Savings, Taxes And Investments.

Team Name:

Neuronauts

Team Members:

- Sai Nymisha
- Vaka Suhita Reddy
- Sidagam Tejaswini

Phase-1: Brainstorming & Ideation

Objective:

Design a chatbot that helps users with personal finance by :

- Tracking daily spending
- Providing Budget tips
- Offering financial insights based on user inputs

Key Points:

1. **Problem Statement:**
    - Most people find financial planning confusing and costly. They struggle with saving, managing taxes, and investing wisely due to a lack of accessible, personalised advice.
    - Traditional financial planning often involves complex jargon, expensive consultants, and time-consuming analysis—leaving a knowledge gap for young professionals, students, and non-experts.
2. **Proposed Solution:**

- Team NEURONAUTS built a chatbot using Python and Streamlit that offers simple, tailored tips on savings, taxes, and investments.
- It's easy to use, fast, and helps users make smarter money decisions through a friendly chat interface.

3. **Target Users:**

   - **Students and Young Professionals**
     New to managing money, curious about budgeting, saving, and investing.
   - **Freelancers and Gig Workers**
     Often deal with unpredictable income and need help with tax planning and financial tracking.
   - **Early Career Employees**
     Exploring smart ways to grow savings and understand tax benefits.
   - **Tech-Savvy Individuals Seeking Self-Help Tools**
     Prefer using digital assistants over traditional financial advisors.
   - **Budget-Conscious Families or Homemakers**
     Want simple tools to monitor household spending and savings goals.
   - **Non-finance Background Individuals**
     Looking for easy, jargon-free advice to build financial literacy.

4. **Expected Outcome:**

   - With real-time support and a user-friendly interface, the chatbot encourages **better financial habits** and makes money management **less intimidating**—especially for non-experts.

Phase-2: Requirement Analysis

Objective:

To define clear and essential requirements for building a chatbot that helps users save money, manage taxes, and start investing—making finance easy and accessible.

Key Points:

1. **Technical Requirements:**

   - Programming Language: **Python**
   - Backend: **Streamlit, Copilot AI**
   - Frontend: **Streamlit Web Framework**
   - Database: **Not required initially (API-based queries)**

2. **Functional Requirements:**

   - **Chat-Based Financial Guidance**
     Delivers real-time tips on savings, taxes, and investments through natural

conversation. **Expense Input & Summary**
Users can log daily spending and receive visual feedback on saving habits.

- **Basic Tax Insights**
  Offers simplified advice based on the user's income profile and employment type.
- **Beginner-Friendly Investment Suggestions**
  Recommends low-risk options suited for new investors.
-
- Allow users to **search eco-friendly vehicles** based on emissions and incentives.

3. **Constraints & Challenges:**

- **Limited Scope**
  Focus only on core features like savings tracking and basic tax tips to avoid complexity.
- **Streamlit-Based UI**
  Stick to Streamlit for fast prototyping and easy deployment, reducing setup time.
- **Basic NLP Design**
  Use rule-based or keyword-triggered responses initially instead of full AI models.
- **User Onboarding Simplicity**
  Keep interface minimal—no login required, just input and interact.

Phase-3: Project Design

Objective:

To create a user-friendly personal finance chatbot that provides intelligent, real-time guidance on saving, taxes, and beginner-level investments—empowering users to manage their finances more confidently through simple, conversational interaction.

Key Points:

1. System Architecture:
Client Layer: User interacts via web or mobile app Backend Server: Handles requests, logic, and API calls

- Database: Stores structured data securely and efficiently
- External APIs: Connects to third-party services if needed
- Security Layer: Manages authentication, authorisation, and encryption

2. User Flow:

. Input – User asks a finance question or logs an expense.

. Processing – Backend analyses input with rules or NLP.

. Response – Bot offers personalised tips or summaries.

. Extras – Optional charts, summaries, or feedback prompt.

. Continue or Exit – User keeps chatting or ends the session.

3. UI/UX Considerations:

->Clean Chat Interface

. Streamlit-based design focused on simplicity and quick interaction.

-> Conversational Tone

Friendly responses that make financial guidance feel approachable.

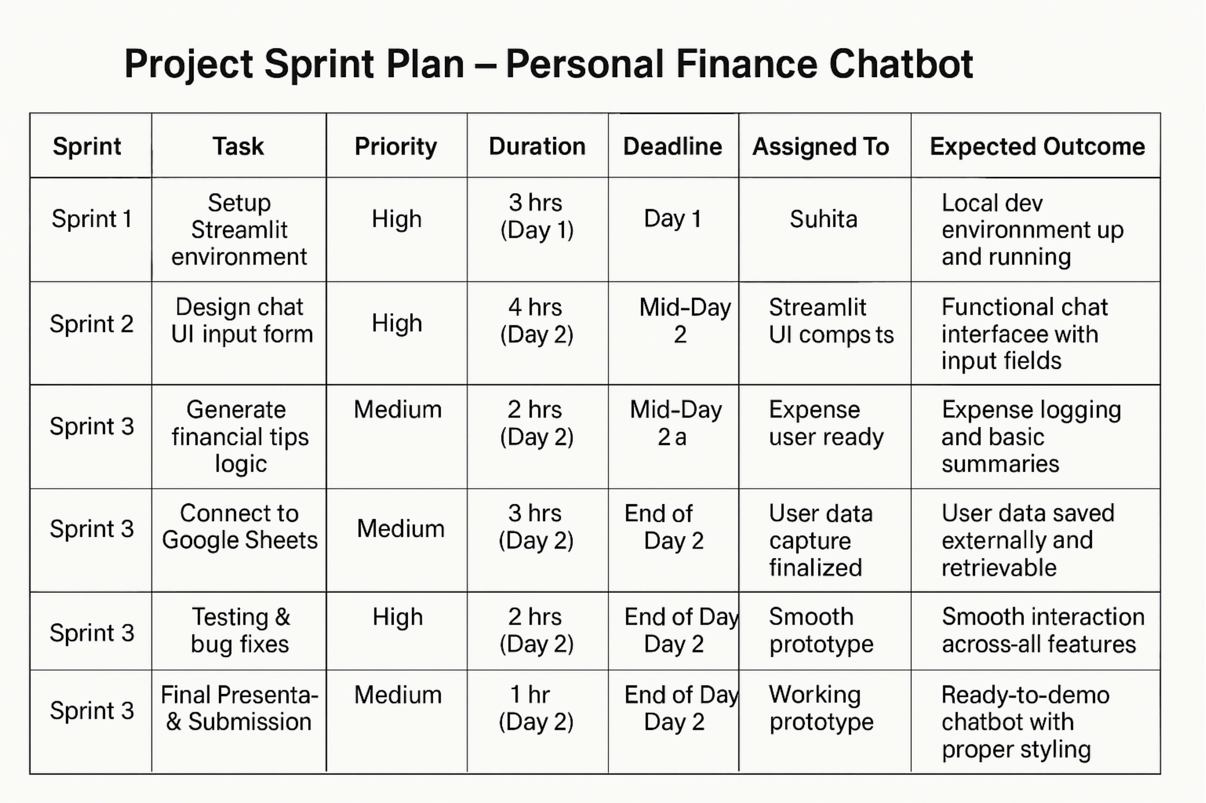
-> Quick Expense Input

Minimal forms for easy logging—just type and go.

Phase-4: Project Planning (Agile Methodologies)

Objective:

Break down development tasks for efficient completion.



Project Sprint Plan – Personal Finance Chatbot

Sprint	Task	Priority	Duration	Deadline	Assigned To	Expected Outcome
Sprint 1	Setup Streamlit environment	High	3 hrs (Day 1)	Day 1	Suhita	Local dev environnment up and running
Sprint 2	Design chat UI input form	High	4 hrs (Day 2)	Mid-Day 2	Streamlit UI comps ts	Functional chat interfacee with input fields
Sprint 3	Generate financial tips logic	Medium	2 hrs (Day 2)	Mid-Day 2 a	Expense user ready	Expense logging and basic summaries
Sprint 3	Connect to Google Sheets	Medium	3 hrs (Day 2)	End of Day 2	User data capture finalized	User data saved externally and retrievable
Sprint 3	Testing & bug fixes	High	2 hrs (Day 2)	End of Day Day 2	Smooth prototype	Smooth interaction across-all features
Sprint 3	Final Presenta- & Submission	Medium	1 hr (Day 2)	End of Day Day 2	Working prototype	Ready-to-demo chatbot with proper styling

Sprint Planning with Priorities

Sprint 1:

High: Set up Streamlit environment
Design chat UI & input form

Sprint 2:

High: - Implement expense tracking logic

Medium: Generate financial tips logic

Sprint 3:

High: - Testing & bug fixes

Medium: -Connect to Google Sheets
- Final Presentation & Submission

Phase-5: Project Development

Objective:

Implement core features of the Personal Finance Chatbot.

Key Points:

1. **Technology Stack Used:**
   - **Frontend:** Streamlit
   - **Backend:** Copilot AI
   - **Programming Language:** Python
2. **Development Process:**
   - **Plan & Define** – Identify users, goals, and must-have features.
   - **Design UI** – Sketch a simple, intuitive chat flow with Streamlit.
   - **Build Core** – Set up Python environment, chatbot shell, and user input fields.
   - **Add Logic** – Integrate finance tips, basic expense tracking, and responses.
   - **Connect Data** – Link Google Sheets or Formspree for input storage.
   - **Test & Deploy** – Refine UX, debug, and prepare final demo package
3. **Challenges & Fixes:**

User Input Confusion: Use simple NLP or keyword guidance

Sensitive Data: Connect via Formspree or Sheets with privacy notices

Phase-6: Functional & Performance Testing

Objective:

Ensure that the Personal Finance chatbot works as expected.

✅ Test Scenarios Overview

Test Scenario ID	Description	Goal
TS01	Valid user submits a savings query	Ensure chatbot returns relevant tips
TS02	User logs an expense entry	Verify correct categorisation and storage
TS03	User enters empty input	Check for proper error handling
TS04	Invalid or nonsensical input entered	Validate chatbot's fallback response
TS05	Request for summary of logged expenses	Ensure charts/tables are generated
TS06	Bot response includes financial advice	Confirm clarity and readability
TS07	User input triggers Sheets integration	Verify that the data saves correctly externally

TS08	The bot handles multiple queries in sequence	Test session continuity and responsiveness

.