**Hackathon Project Phases Template** for the **AutoSage App** project.

# Hackathon Project Phases Template

**Project Title:**

LogoCraft: Innovative Logo Generation with Diffusion Technology

**Team Name:**

Astriod

**Team Members:**

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## Phase-1: Brainstorming & Ideation

**Objective:**

LogoCraft aims to revolutionize logo design using diffusion technology, enabling fast, customizable, and high-quality logos. The platform empowers users to create unique, professional logos that reflect their brand identity with ease. By leveraging AI, LogoCraft offers a seamless, efficient, and personalized design experience.

**Key Points:**

**1. Understanding the Brand**

* What is the brand's mission and values?
* Who is the target audience?
* What emotions or messages should the logo convey?

**2. Research & Inspiration**

* Analyze competitors’ logos to differentiate.
* Explore design trends but aim for timelessness.
* Gather inspiration from nature, geometry, or cultural symbols.

**3. Concept Development**

* Sketch rough ideas to explore different possibilities.
* Experiment with typography, symbols, and abstract forms.
* Consider versatility (e.g., will it work in black & white, on different mediums?).

**4. Color & Typography**

* Choose colors that align with the brand’s identity (psychology of colors).
* Select fonts that are readable and match the brand personality.
* Ensure scalability—will it work on small and large formats?

## Phase-2: Requirement Analysis

**Objective:**

The objective of requirement analysis for logo craft is to define the brand’s identity, target audience.

**Key Points:**

**1.Adaptability & Application**

* Test in black & white, grayscale, and color variations.
* Ensure usability across digital and print platforms.
* Create different versions (primary, icon-only, wordmark, monochrome).

**2. Technical Aspects**

* Deliver in multiple formats (SVG, PNG, AI, EPS, PDF).
* Maintain vector quality for scalability.
* Ensure it’s legible in different resolutions and devices.

**3. Feedback & Refinement**

* Gather feedback from stakeholders or target users.
* Make refinements while keeping the core concept intact.
* Test real-world applications before finalizing.

Would you like a structured document to organize these points?

## Phase-3: Project Design

**Objective:**

Develop the architecture and user flow of the application.

**Key Points:**

1. **System Architecture:**

* 1. User enters vehicle-related query via UI.

○ Query is processed using **Google Gemini API**.

○ AI model fetches and processes the data.

1. **User Flow:**

* 1. Step 1: User enters a query (e.g., "Best motorcycles under ₹1 lakh").

○ Step 2: The backend **calls the Gemini Flash API** to retrieve Logos data.

○ Step 3: The app processes the data and **displays results** in an easy-to-read format.

1. **UI/UX Considerations:**

* 1. **Minimalist, user-friendly interface** for seamless navigation.

○ **Filters for price, mileage, and features**.

○ **Dark & light mode** for better user experience.

## Phase-4: Project Planning (Agile Methodologies)

**Objective:**

The objective of **LogoCraft** is to create an innovative logo generation tool that harnesses the power of Diffusion Technology to deliver high-quality, customizable logos in a fraction of the time compared to traditional design methods. By using Agile methodologies, the project aims to develop a flexible, user-centered platform that allows businesses to generate logos tailored to their brand identity with minimal effort.

**Sprint Planning with Priorities**

**Sprint 1 – Setup & Integration (Day 1)**

**(**🔴 **High Priority)** Set up the **environment** & install dependencies.

**(**🔴 **High Priority)** Integrate **Google Gemini API**.

**(**🟡 **Medium Priority)** Build a **basic UI with input fields**.

**Sprint 2 – Core Features & Debugging (Day 2)**

**(**🔴 **High Priority)** Implement **search & comparison functionalities**.

**(**🔴 **High Priority)** Debug API issues & handle **errors in queries**.

**Sprint 3 – Testing, Enhancements & Submission (Day 2)**

**(**🟡 **Medium Priority)** Test API responses, refine UI, & fix UI bugs. **(**🟢 **Low Priority)** Final **demo preparation & deployment**.

## Phase-5: Project Development

**Objective:**

The objective of the "Project Development in LogoCraft: Innovative Logo Generation with Diffusion Technology" is to create an AI-powered platform that revolutionizes the logo design process through the use of advanced diffusion technology. By leveraging diffusion-based models, the project aims to automate the creation of unique, high-quality logos tailored to user preferences, such as brand name, industry, and design style.

**Key Points:**

1. **Technology Stack Used:**

* 1. **Frontend:** Streamlit

○ **Backend:** Google Gemini Flash API

○ **Programming Language:** Python

1. **Development Process:**

* 1. Implement **API key authentication** and **Gemini API integration**.

○ Develop **comparison and maintenance tips logic**.

○ Optimize **search queries for performance and relevance**.

1. **Challenges & Fixes:**

* 1. **Challenge:** Delayed API response times.

**Fix:** Implement **caching** to store frequently queried results.

○ **Challenge:** Limited API calls per minute.

**Fix:** Optimize queries to fetch **only necessary data**.

## Phase-6: Functional & Performance Testing

**Objective:**

In the context of **LogoCraft: Innovative Logo Generation with Diffusion Technology**, **functional and performance testing** are essential to ensuring the platform operates smoothly and efficiently. Functional testing focuses on verifying that the core features, such as logo generation based on user inputs (e.g., brand name, industry, style, and color preferences), work as expected. This includes testing the customization features, ensuring users can adjust elements like fonts, colors, and layouts, as well as validating user inputs to prevent errors.

## Final Submission

1. **Project Report Based on the templates**
2. **Demo Video (3-5 Minutes)**
3. **GitHub/Code Repository Link**
4. **Presentation**