

Hackathon Project Phases Template

Project Title: "LogoCraft: Innovative Logo Generation with Diffusion Technology"

Team Name :

FutureDealers

Team Members:

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Phase-1: Brainstorming & Ideation

Objective:

"LogoCraft aims to revolutionize logo creation by utilizing advanced diffusion technology to generate high-quality, custom logos. Its objective is to streamline the design process for businesses and individuals, providing unique and visually appealing logos efficiently."

Key Points:

1. Problem Statement:

- In today's competitive market, establishing a memorable brand identity through a captivating logo is crucial for businesses.
- However, many companies face challenges in creating unique and compelling logos that accurately represent their brand values and vision.

2. Proposed Solution:

- LogoCraft is use to easily generate professional logos that match his brand's identity and values . This helps them establish a strong brand identity from the start.
- Using LogoCraft, users can quickly pivot from design ideation to business operations, maximizing his time and resources to focus on innovation and growth.

3. Target Users:

- **Entrepreneurs** who need a professional logo to establish thier brand identity.
- **Marketing Agencies** offers branding services which need a efficient logo.
- **Businesses** owners who lack design expertise and needs a logo.

4. Expected Outcome:

- LogoCraft platform generates logo design files (PNG, SVG, EPS), customization options, and a design rationale explaining the inspiration behind the logo.
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Phase-2: Requirement Analysis

Objective:

Define the technical and functional requirements for the LogoCraft App.

Key Points:

1. Technical Requirements:

- Programming Language: **Python**
- Backend: **Node.js with Express.js**
- Frontend: **React.js**
- Database: **MongoDB or PostreSQL**

2. Functional Requirements:

- Generate custom logos based on brand input using diffusion technology.
- Allow users to customize logos with options for text, color, and layout.
- provide downloadable logo files in multiple formats (PNG, SVG, EPS).
- Enable logo previews in real-world scenarios (e.g., business cards, websites).

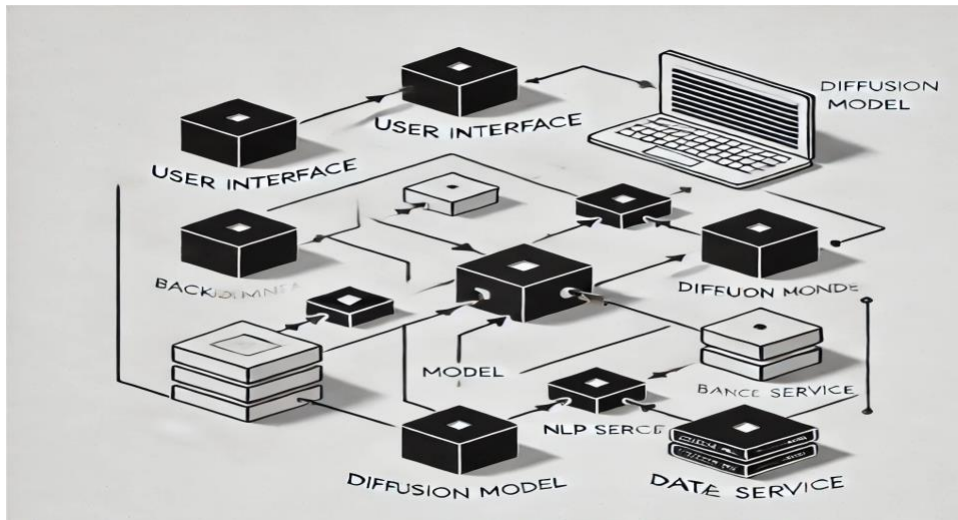
3. Constraints & Challenges:

- Ensuring high-quality, diverse logo generation with diffusion technology.
 - Balancing ease of use with advanced customization options.
 - Preventing potential copyright issues with generated logo designs.
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Phase-3: Project Design

Objective:

Develop the architecture and user flow of the application.



Key Points:

1. System Architecture:

- **User Interface:** User inputs logo requirements.
- **Processing:** Diffusion model generates logo concepts.
- **Backend:** NLP services refine design details.
- **Display:** UI presents logo variations & edits.

2. User Flow:

- **Input:** User enters logo idea (e.g., "Minimalist tech logo").
- **Processing:** Diffusion model generates design options.
- **Refinement:** Backend fine-tunes logos with NLP services.
- **Output:** UI displays final logos for download/editing.

3. UI/UX Considerations:

- **Simple UI for easy logo customization.**
 - **Filters: Style, colors, and typography.**
 - **Dark & light mode for better design experience.**
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Phase-4: Project Planning (Agile Methodologies)

Objective:

Break down development tasks for efficient completion.

Sprint	Task	Priority	Duration	Deadline	Assigned To	Dependencies	Expected Outcome
Sprint 1	Environment Setup & API Integration	● High	2 hours (Day 1)	End of Day 1	Member 2	Google API Key, Python, Streamlit setup	API connection established & working
Sprint 1	Frontend UI Development	● Medium	2 hours (Day 1)	End of Day 1	Member 3	API response format finalized	Basic UI with input fields
Sprint 2	Error Handling & Debugging	● High	4 hours (Day 2)	End of Day 1	Member 1	API logs, UI inputs	Improved API stability
Sprint 3	Testing & UI Enhancements	● Medium	2 hours (Day 2)	Mid-Day 2	Member 2& 3	API response, UI layout completed	Responsive UI, better user experience
Sprint 3	Final Presentation & Deployment	● Low	1.5 hours (Day 2)	End of Day 2	Entire Team	Working prototype	Demo-ready project

Sprint Planning with Priorities

Sprint 1 – Setup & Integration (Day 1)

- (● High Priority) Set up the **environment** & install dependencies.
- (● High Priority) Integrate **Google API**.
- (● Medium Priority) Build a **basic UI with input fields**.

Sprint 2 – Core Features & Debugging (Day 2)

- (🔴 **High Priority**) Error handling & debugging API issues.
- (🔴 **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**.
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Phase-5: Project Development

Objective:

Implement core features of the LogoCraft App.

Key Points:

1. Technology Stack Used:

- **Frontend:** React.js
- **Backend:** Node.js with Express.js
- **Programming Language:** Python

2. Development Process:

- Build a **React.js** frontend for user interaction and logo display
- Develop a **Python service**, communicating with the backend to generate logos based on user prompts.
- Implement **prompt processing, data storage, and deploy** the application to a cloud platform.

3. Challenges & Fixes:

- **Challenge:** Slow logo generation times.
 - **Fix:** Caching, model optimization, cloud GPUs.
 - **Challenge:** Inaccurate logo generation results.
Fix: Improved prompts, model fine-tuning, user feedback.
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Phase-6: Functional & Performance Testing

Objective:

Ensure that the LogoCraft App works as expected.

Test Case ID	Category	Test Scenario	Expected Outcome	Status	Tester
TC-001	Functional Testing	Query "Logo design for a modern tech startup"	Relevant logo design options should be displayed.	✅ Passed	Tester 1
TC-002	Functional Testing	Query "Logo customization with color options"	Customization options should be provided.	✅ Passed	Tester 2
TC-003	Performance Testing	API response time under 500ms	API should return results quickly.	⚠ Needs Optimization	Tester 3
TC-004	Bug Fixes & Improvements	Fixed incorrect logo generation results..	Data accuracy should be improved.	✅ Fixed	Developer
TC-005	Final Validation	Ensure UI is responsive across devices.	UI should work on mobile & desktop.	❌ Failed - UI broken on mobile	Tester 2
TC-006	Deployment Testing	Host the app using Streamlit Sharing	App should be accessible online.	🚀 Deployed	DevOps

Final Submission

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