

Hackathon Project Phases Template

Project Title:

Impactful Resumes with AI

Team Name:

AIResumeX

Team Members:

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Phase-1: Brainstorming & Ideation

Objective:

Create an AI-powered tool to help users build impactful resumes tailored to job descriptions and industry standards.

Key Points:

Problem Statement

- Job seekers struggle to craft resumes that stand out and meet industry requirements.

Proposed Solution

- An AI tool that analyzes job descriptions, suggests relevant content, and creates ATS-friendly resumes.

Target Users

- Fresh graduates, job switchers, and freelancers.

Expected Outcome

- A user-friendly tool generating effective resumes to boost job application success rates.
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Phase-2: Requirement Analysis

Objective:

Define the technical and functional requirements for the AIResumeX project.

Key Points:

Technical Requirements

- Programming Language: Python
- Backend: OpenAI GPT API
- Frontend: Streamlit Web Framework

Functional Requirements

- Analyze job descriptions to suggest relevant resume content.
- Provide ATS-friendly resume templates.
- Generate real-time suggestions for resume improvements using industry-specific keywords.

Constraints & Challenges

- Ensuring generated resumes are ATS-compatible.
 - Handling diverse user needs across different industries and experience levels.
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Phase-3: Project Design

Objective:

Design the architecture and user flow for the AIResumeX application.

Key Points:

System Architecture

- User inputs job description and profile details.
- AI processes the input and generates relevant resume sections.
- Output includes ATS-friendly resumes with real-time suggestions.

User Flow

- **Step 1:** User enters their job description and profile information.
- **Step 2:** AI analyzes the input to identify key skills and content.
- **Step 3:** Tool generates a tailored resume using customizable templates.
- **Step 4:** User reviews and downloads the final resume.

UI/UX Considerations

- Minimalist and user-friendly design for seamless navigation.
 - Drag-and-drop interface for customizing resume sections.
 - Real-time previews of the generated resume.
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Phase-4: Project Planning (Agile Methodologies)

Objective:

Break down development tasks for efficient and timely completion of the AIResumeX project.

Sprint Planning with Priorities:

| Sprint | Tasks | Priority | Expected Outcome |
|-----------------|---|----------|---|
| Sprint 1 | Set up the development environment. Install and integrate the OpenAI GPT API. Create a basic UI structure using Streamlit. | High | Functional API connection and basic interface. |
| Sprint 2 | Implement job description analysis. Generate tailored resume content. Provide ATS-friendly templates. | High | Resume creation feature with customization options. |
| Sprint 3 | Test API responses and improve data accuracy. Refine the UI for a seamless user experience. Add drag-and-drop functionality for resume customization. | Medium | Polished UI and fully functional resume builder tool. |

Sprint Planning with Priorities:

- **Sprint 1 – Setup & Integration (Day 1):**
 - (🔴 High Priority) Set up the development environment & install dependencies.
 - (🔴 High Priority) Install and integrate the OpenAI GPT API.
 - (🟡 Medium Priority) Create a basic UI structure using Streamlit.
- **Sprint 2 – Core Features Development (Day 2):**
 - (🔴 High Priority) Implement job description analysis.
 - (🔴 High Priority) Generate tailored resume content.
 - (🔴 High Priority) Provide ATS-friendly templates.
- **Sprint 3 – Testing & Enhancements (Day 3):**
 - (🟡 Medium Priority) Test API responses and improve data accuracy.
 - (🟡 Medium Priority) Refine the UI for a seamless user experience.
 - (🟢 Low Priority) Add drag-and-drop functionality for resume customization.

Phase-5: Project Development**Objective:**

Implement the core features and functionalities of the AIResumeX application.

Key Points:**Technology Stack Used**

- **Frontend:** Streamlit Web Framework
- **Backend:** OpenAI GPT API
- **Programming Language:** Python

Development Process

1. Set up the environment and integrate the OpenAI GPT API.
2. Build the AI model to analyze job descriptions and generate tailored resume content.
3. Design and implement ATS-friendly resume templates.
4. Create a real-time preview feature for user convenience.

Challenges & Fixes

- **Challenge:** Handling API rate limits.
Fix: Optimize queries to minimize API calls and implement caching for frequent requests.
- **Challenge:** Ensuring template compatibility with ATS systems.
Fix: Validate templates against common ATS formats.

Phase-6: Functional & Performance Testing

Objective:

Ensure that the AIResumeX application meets functional and performance expectations.

| Test Case ID | Category | Test Scenario | Expected Outcome | Status | Tester |
|--------------|---------------------|--|--|--|-----------|
| TC-001 | Functional Testing | Analyze "Software Engineer" job description. | Suggests relevant skills and experience sections. | <input checked="" type="checkbox"/> Passed | Tester 1 |
| TC-002 | Functional Testing | Generate ATS-friendly resume template. | Provides properly formatted and ATS-compatible resume. | <input checked="" type="checkbox"/> Passed | Tester 2 |
| TC-003 | Performance Testing | API response time under 500ms. | Returns results promptly. | ⚠ Needs Optimization | Tester 3 |
| TC-004 | Usability Testing | Test real-time preview functionality. | Displays accurate updates in preview. | <input checked="" type="checkbox"/> Passed | Tester 4 |
| TC-005 | Bug Fixes | Resolve incorrect content generation issues. | Generates accurate content based on job description. | <input checked="" type="checkbox"/> Fixed | Developer |

Final Submission

Deliverables:

1. Project Report:

- A detailed document explaining the objectives, methodology, and outcomes of the AIResumeX project.

2. Demo Video:

- A 3-5 minute video showcasing the application's features, including a live demonstration of resume generation and customization.

3. Code Repository:

- A GitHub repository containing the complete source code, including instructions for setting up and running the application.

4. Presentation:

- A slide deck summarizing the project phases, features, and key results, ready for showcasing to stakeholders.
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