Hackathon Project Phases Template for the **Smart Resume Generator** project.

Hackathon Project Phases Template

Project Title:

Smart Resume Generator: Customized Resumes for Every Opportunity

Team Name:

RapidSabers

Team Members:

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Phase-1: Brainstorming & Ideation

Objective:

Create an **AI-powered Smart Resume Generator** that helps users build personalized, compelling resumes. The tool will analyze job descriptions and individual experiences to highlight relevant skills and achievements.

Key Points:

1. **Problem Statement:**
    - Many job seekers struggle to create tailored resumes that stand out to employers.
    - Users need guidance on how to optimize their resumes for different job applications, including ATS compatibility.

2. **Proposed Solution:**

    - An AI-powered **Smart Resume Generator** that offers personalized resume building by analyzing job descriptions and user experiences.
    - The app provides tips on industry-specific keywords, formatting, and content customization.

3. **Target Users:**

    - **Job seekers** looking to create effective resumes for specific positions.
    - **Individuals wanting** to improve their resumes using industry insights and ATS advice.
    - **Recent graduates** and professionals re-entering the job market.

4. **Expected Outcome:**

    A user-friendly **AI application** that helps individuals generate **high-quality, tailored resumes** that increase their chances of **securing interviews**.

Phase-2: Requirement Analysis

Objective:

Define the technical and functional requirements for the **Smart Resume Generator**

Key Points:

1. **Technical Requirements:**

    - Programming Language: **Python**
    - Backend: **Google Deep AI**
    - Frontend: **HTML,CSS,JS**
    - Database: **Not required initially (API-based queries)**
2. **Functional Requirements:**
    - Ability to fetch **resume templates** and relevant job description data using an AI integration.
    - Display customizable **resume formats, relevant skills**,in a user-friend interface.
    - Provide **real-time tips** on improving resume content based on current job market trends
    - Allow users to explore eco-conscious career paths and industries focused on sustainability

3. **Constraints & Challenges:**

    - Ensuring real-time updates from **Gemini API**.
    - Handling **limitations on API** calls when fetching job descriptions,
    - Providing a seamless particularly with **larger datasets** or complex results

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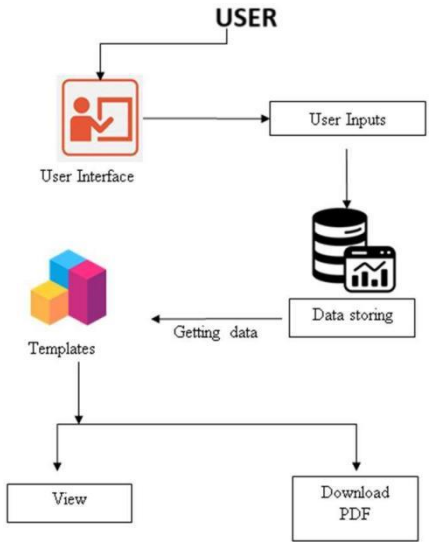
Phase-3: Project Design

Objective:

Develop the architecture and user flow of the application.



Key Points:

1. **System Architecture:**

    - User inputs a resume-related query via the UI.
    - Query is processed using the Smart Resume **Generator's backend algorithms**.
    - The AI model analyzes the **query and extracts** relevant resume content.

- The frontend displays tailored resume options, formatting suggestions, and tips for improvement.

2. **User Flow:**
    - Step 1: User enters a query (e.g., " Resume template for marketing manager").
    - Step 2: The backend processes **the input and retrieves suitable resume templates** and content suggestions.
    - Step 3: The app organizes the data and **presents results in a clean, editable format** for user refinement.
3. **UI/UX Considerations:**
    - **Intuitive, user-friendly interface** designed for effortless navigation.
    - **Filters for experience level, job role, and industry to tailor content recommendations.**
    - **Default light mode** for better user experience.

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	6 hours (Day 1)	End of Day 1	Vinay	Google API Key, JS	API connection established & working
Sprint 1	Frontend UI Development	🟡 Medium	2 hours (Day 1)	End of Day 1	Manideep	Basic UI with input fields	API response format finalized
Sprint 2	Resume Generation Logic Implementation	🔴 High	3 hours (Day 2)	Mid-Day 2	Ram Gopal	API response, UI elements ready	API response, UI elements ready
Sprint 2	Error Handling & Debugging	🔴 High	1.5 hours (Day 2)	Mid-Day 2	Ramgopal	API logs, UI inputs	Improved API stability
Sprint 3	Testing & UI Enhancements	🟡 Medium	1.5 hours (Day 2)	Mid-Day 2	Vinay	API response, UI layout completed	API response, UI layout completed
Sprint 3	Final Presentation & Deployment	🟢 Low	1 hour (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 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:

Implement core features of the **Smart Resume Generator**

Key Points:

1. **Technology Stack Used:**
    - **Frontend:** HTML,CSS,JS
    - **Backend:** Google Gemini
    - **Programming Language:** Python
2. **Development Process:**
    - Implement **API key authentication** for user data security
    - Develop **logic for generating personalised resume content.**
    - **Optimize content** retrieval and formatting **suggestions based on user inputs**

3. **Challenges & Fixes:**

    - **Challenge:** Inconsistent formatted outputs for different job roles.
      Fix: Create **standardized** templates and guidelines to ensure uniformity across resumes.
    - **Challenge:** User difficulty in navigating the resume customization options
      Fix: Optimize queries to fetch **only necessary data**.

Phase-6: Functional & Performance Testing

Objective:

Ensure that the **Smart Resume Generator** works as expected.

Test Case ID	Category	Test Scenario	Expected Outcome	Status	Tester
TC-001	Functional Testing	Query " Resume template for software developer"	Suitable resume templates should be displayed	✅ Passed	Tester 1
TC-002	Functional Testing	Query " Tips for writing a standout resume"	Practical tips should be provided.	✅Passed	Tester 2
TC-003	Performance Testing	API response time under 300ms	API should return results quickly.	⚠ Needs Optimization	Tester 3
TC-004	Bug Fixes & Improvements	Fixed incorrect API responses.	Resume formatting should be accurate.	✅ Fixed	Developer
TC-005	Final Validation	Ensure UI is user-friendly and intuitive	UI should be easy to navigate on all devices.	❌ Failed - UI Issues	Tester 2
TC-006	Deployment Testing	Host the app using a Cloud service	App should be accessible online.	🚀 Deployed	DevOps

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Final Submission

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