

Hackathon Project Phases Template

# Project Title:

# SMART RESUME GENERATOR :

Customized Resume for Every Opportunity

# Team Name:

TECHNIC CAPITALS

# Team Members:

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# Phase-1: Brainstorming & Ideation

## Objective:

A resume objective is a short statement at the top of your resume that highlights your career goals

Useful for entry level candidates, career changers .

1. **Problem Statement:**

**Job seekers often struggle to create professional resumes quickly and effectively many existing resume builders lack customization and AI powered**

1. **Proposed Solution:**
   * A smart resume generator AI that helps users create professional, optimized resumes in minutes using machine learning and NLP ( Natural language prosessor )

**3. Target Users:**

* + **Fresh graduate need a strong first resume to enter the job.**

**EXPERIENCE PROFESSIONAL Want to upgrade and optimze their resumes for better job opportunities.**

**4. Expected Outcome :**

* + **Implement AI powered Resume Generator will lead to several key outcomes , benefiting both users and employeesh.**



# Phase-2: Requirement Analysis

## Objective:

Define the technical and functional requirements for the Smart resume Generator.

## Key Points:

1. **Technical Requirements:**
   * Programming Language: **HTML**
   * Backend: **Google Gemini AI**
   * Frontend: **Streamlit Web Framework**
2. **Functional Requirements:**
   * Resume creation and optimization.
   * AI powered customization.
   * Resume review and scoring.
3. **Constraints & Challenges:**
   * NLP accuracy and all limitations.
   * Cross platform compatibility.
   * Users experience complexity.



# Phase-3: Project Design

## Objective:

Develop the architecture and user flow of the application.

## Key Points:

1. **System Architecture:**
   * Frontend ( UI/UX) : Built for user interaction allowing users to input data select templates, customized Resumes and preview them in real time.
   * Backend ( server-side) : express for handling API requests , data processing and managing resume content.
   * Resume Generator and export: users libraries like Js PDF and docxtemplater for creating and exporting resumes in multiple formats ( PDF DOCXTEXT ) with Clouds storage for file backup and sharing.
2. **User Flow:** 
   * Input Resume data : The users personal, information, skills , experience and education from linkdin or an existing resume.
   * Template selection and customisation : The users select a resume template, customize sections and receives AI-driven suggestions for improving content , keywords and formatting.
3. **UI/UX Considerations:**
   * **Design and clean user friendly interface with straight forward navigation to facilitate easy resume creation.**
   * **Provid a verity of templates and customization features allowing users to tailor a resumes to their preferences.**
   * **Optimze loading time and responsiveness to offer a smooth user experience.**



# Phase-4: Project Planning (Agile Methodologies)

## Objective:

## breakdown of development tasks for a Smart Resume Generator:

| \*Task\* | \*Description\* | \*Estimated Time\* |

| --- | --- | --- |

| 1. Research | Study existing resume generators and job market trends | 1st day |

| 2. Design UI/UX | Create wireframes and mockups for the generator's interface | 1st day |

| 3. Backend Development | Build the generator's core logic using a programming language (e.g., Python, Node.js) | 1st day`|

| 4. Frontend Development | Implement the UI/UX design using HTML, CSS | 1st day |

| 5. Database Integration | Design and implement a database to store user resumes and data | 1st day |

| 6. Testing and Debugging | Test the generator for bugs and errors, and fix them | 2nd day |

| 7. Deployment | Deploy the generator on a cloud platform or server | 2nd day |

| 8. Maintenance and Updates | Regularly update the generator with new features and improvements | Ongoing |



# Phase-5: Project Development

## Objective:

Implement core features of the AutoSage App.

## Key Points:

1. **Technology Stack Used:**
   * **Frontend:** Streamlit Web framework.
   * **Backend:** Google Gemini AI
   * **Programming Language: HTML and CSS**
2. **Development Process:**
   * Data collection and analysis: gather and analyze a diverse set of resumes across

Industries to understand common structure, key skills,job titles, and relevant content

* + Al model training: Train and Al model example NLP,techniques to generate personalized

Resumes by extracting important information from user input and formatting it into professional resumes.

* + User interface and integration: Develope an intuitive user interface allowing users to input personal and professional details,with features like template selection, customisation and export options.

1. **Challenges & Fixes:**
   * **Challenge: Ensuring personalization and accuracy**

**Fix:** Use advanced Al algorithms to tailor resumes based on individual inputs and job specific keywords ensuring revelence and correctness in content.

* + **Challenge:** handling diverse resumes formates.

**Fix:** implement flexible templates and an adaptive system that can process and generate resumes in various formats maintaining consistency across different industries.



# Phase-6: Functional & Performance Testing

## Objective:

Ensure that the smart resume generator works as expected

performance testing of a Smart Resume Generator:

| \*Test Type\* | \*Test Case\* | \*Expected Result\* |

| --- | --- | --- |

| 1. \*Functional Testing\* | Resume creation with valid input | Resume generated successfully with correct formatting |

| 2. \*Functional Testing\* | Resume creation with invalid input (e.g., missing fields) | Error message displayed, resume not generated |

| 3. \*Performance Testing\* | Load testing with 100 concurrent users | Application responds within 2 seconds, no errors |

| 4. \*Performance Testing\* | Stress testing with 500 concurrent users | Application responds within 5 seconds, no errors |

| 5. \*Functional Testing\* | Resume formatting and layout | Resume formatting and layout correct, no issues |

| 6. \*Functional Testing\* | Resume downloading and sharing | Resume downloaded and shared successfully, no issues |

# Final Submission

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