Hackathon Project Phases Template for the JobSwift: Accelerating Careers with AI-Powered Applications using Palm's text-bison-001 project.

Hackathon Project Phases Template

Project Title:

JobSwift: Accelerating Careers with AI-Powered Applications using Palm's text-bison001

Team Name:

405 Found

Team Members:

- P. Sathvika
- Nimma Akshaya
- Padamati Sushma
- Pantham Vaishnavi

Phase-1: Brainstorming & Ideation

Objective:

Develop an AI-powered platform, JobSwift, to streamline the job application process and empower users in their career advancement journey.

Key Points:

1. **Problem Statement:**

   Job seekers face challenges in creating effective job application materials, showcasing transferable skills, and preparing for interviews, leading to missed career opportunities and frustration.

2. **Proposed Solution:**

   Utilize AI technology, specifically Google's PaLM (Pathways Language Model) API, integrated with Streamlit for interactive user interfaces, to automate resume and cover letter generation, and interview question preparation based on user inputs..
3. **Target Users:**
   - **Job Seekers**
   - **Recruiters and Hiring Managers**
   - **Students & Interns**
   - **Organizations & Career Services**
4. **Expected Outcome:**
   - A functional **Job Swift** that provides AI-driven resume and cover letter generation tailored to user profiles. □ Integration with Facebook and Gmail for streamlined registration. □ Personalized interview question preparation based on user-provided skills.

Phase-2: Requirement Analysis

Objective:

Define the technical and functional requirements for the JobSwift: Accelerating Careers with AI-Powered Applications using Palm's text-bison-001 App.

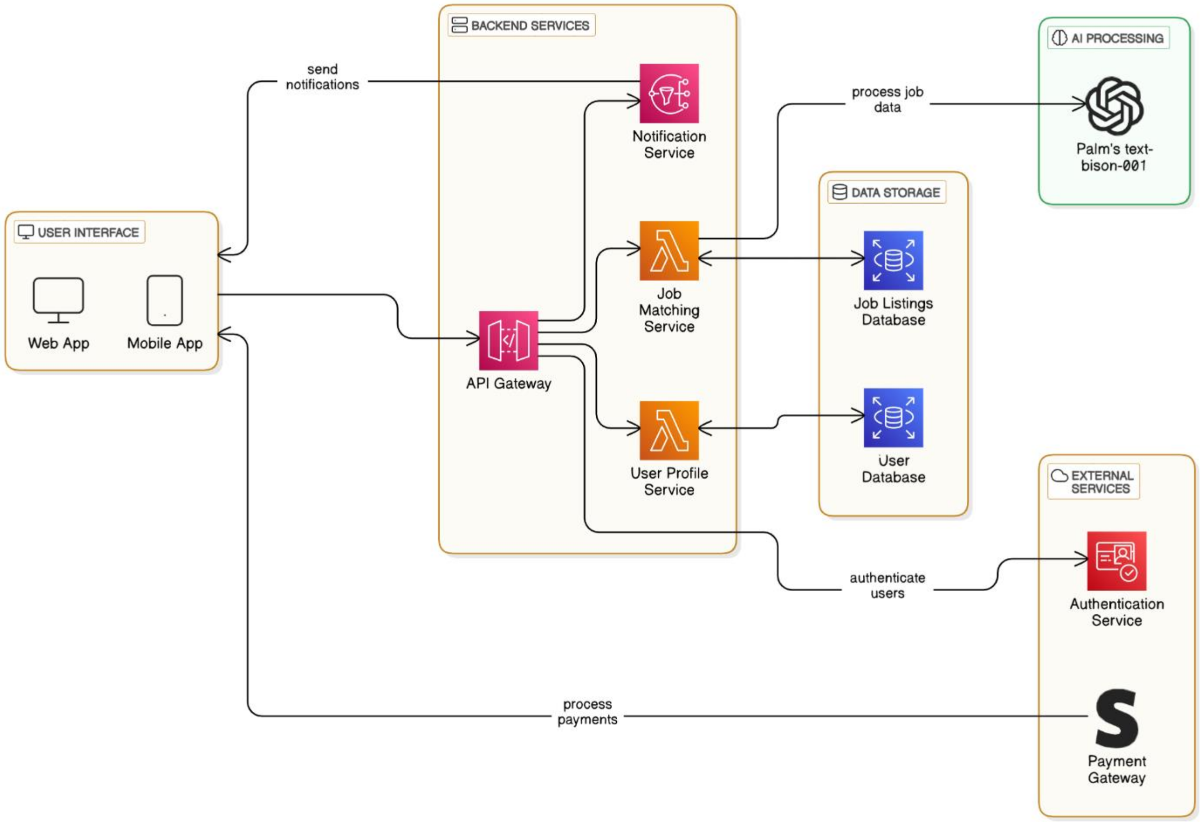
Key Points:

- streamlit==1.25.0
- google-cloud-aiplatform==1.33.0
- google-generativeai
- Pillow==10.0.0

Phase-3: Project Design

Objective:

Develop the architecture and user flow of the application.



Key Points:

1. **System Architecture:**
   - Web App & Mobile App: Users interact with the system through these interfaces.
   - Acts as a central entry point for requests from the Web and Mobile apps.

2. **User Flow:**
   - Step 1: Users log in via Web or Mobile App.
   - Step 2: Users update their profiles through the User Profile Service.
   - Step 3: Users search for jobs or receive recommendations via the Job Matching Service.
   - Step 4: The Notification Service sends updates about new job matches or application status.
   - Step 5: If a payment is needed (e.g., for premium features or job posting fees), the Payment Gateway handles transactions.

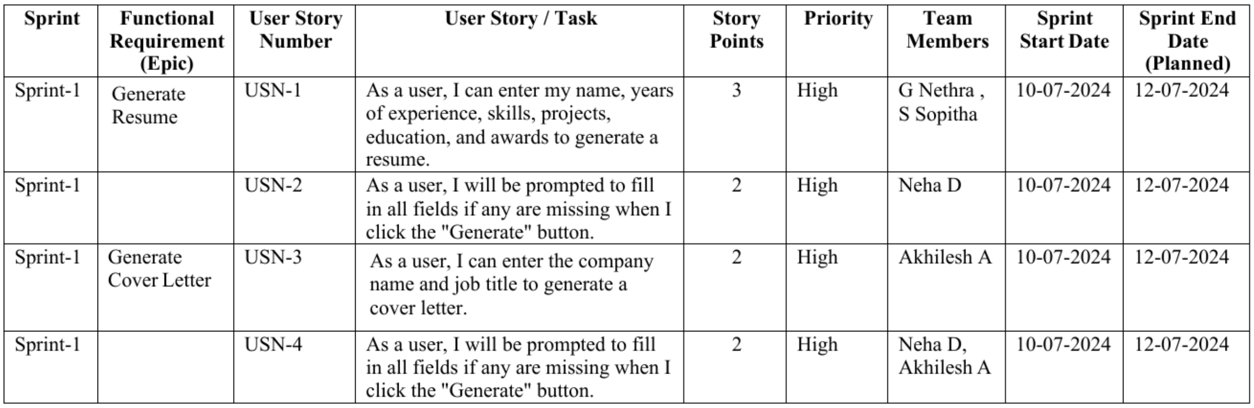
3. **UI/UX Considerations:**

   - Simple, intuitive UI: Users should easily navigate between job search, profile updates, and applications.
   - AI-Driven Job Recommendations: Enhance user engagement by providing relevant job listings.
   - Fast API Responses: API Gateway should efficiently route requests to backend services.

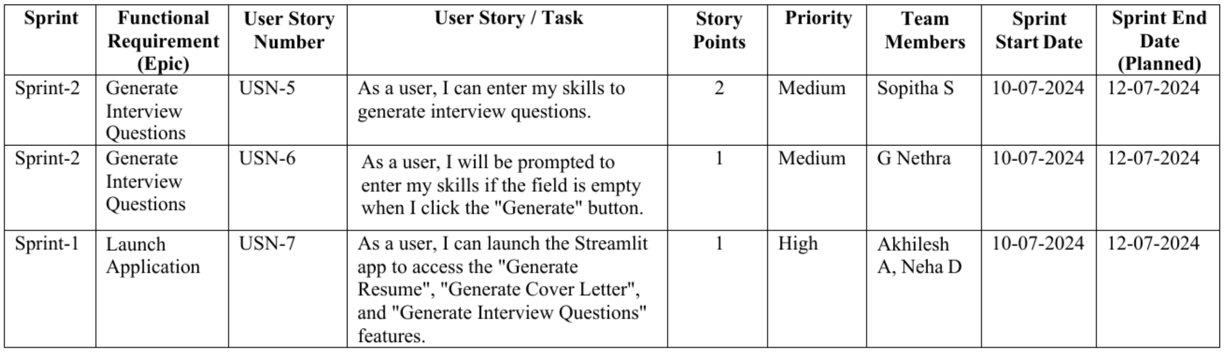
Phase-4: Project Planning (Agile Methodologies)

Objective:

Break down development tasks for efficient completion.



Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members	Sprint Start Date	Sprint End Date (Planned)
Sprint-1	Generate Resume	USN-1	As a user, I can enter my name, years of experience, skills, projects, education, and awards to generate a resume.	3	High	G Nethra , S Sopitha	10-07-2024	12-07-2024
Sprint-1		USN-2	As a user, I will be prompted to fill in all fields if any are missing when I click the "Generate" button.	2	High	Neha D	10-07-2024	12-07-2024
Sprint-1	Generate Cover Letter	USN-3	As a user, I can enter the company name and job title to generate a cover letter.	2	High	Akhilesh A	10-07-2024	12-07-2024
Sprint-1		USN-4	As a user, I will be prompted to fill in all fields if any are missing when I click the "Generate" button.	2	High	Neha D, Akhilesh A	10-07-2024	12-07-2024



Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members	Sprint Start Date	Sprint End Date (Planned)
Sprint-2	Generate Interview Questions	USN-5	As a user, I can enter my skills to generate interview questions.	2	Medium	Sopitha S	10-07-2024	12-07-2024
Sprint-2	Generate Interview Questions	USN-6	As a user, I will be prompted to enter my skills if the field is empty when I click the "Generate" button.	1	Medium	G Nethra	10-07-2024	12-07-2024
Sprint-1	Launch Application	USN-7	As a user, I can launch the Streamlit app to access the "Generate Resume", "Generate Cover Letter", and "Generate Interview Questions" features.	1	High	Akhilesh A, Neha D	10-07-2024	12-07-2024

Sprint Planning with Priorities

Sprint 1 – Setup & Integration (Day 1)

(High Priority) Users can enter personal details and will be prompted for missing fields.
(High Priority) Users can enter job details and will be prompted if fields are empty.
(HighPriority) Allows launching the app.

Sprint 2 – Core Features & Debugging (Day 2)

(Medium Priority) introduces interview question generation.

Phase-5: Project Development

Objective:

JobSwift: Accelerating Careers with AI-Powered Applications using Palm's text-bison-001

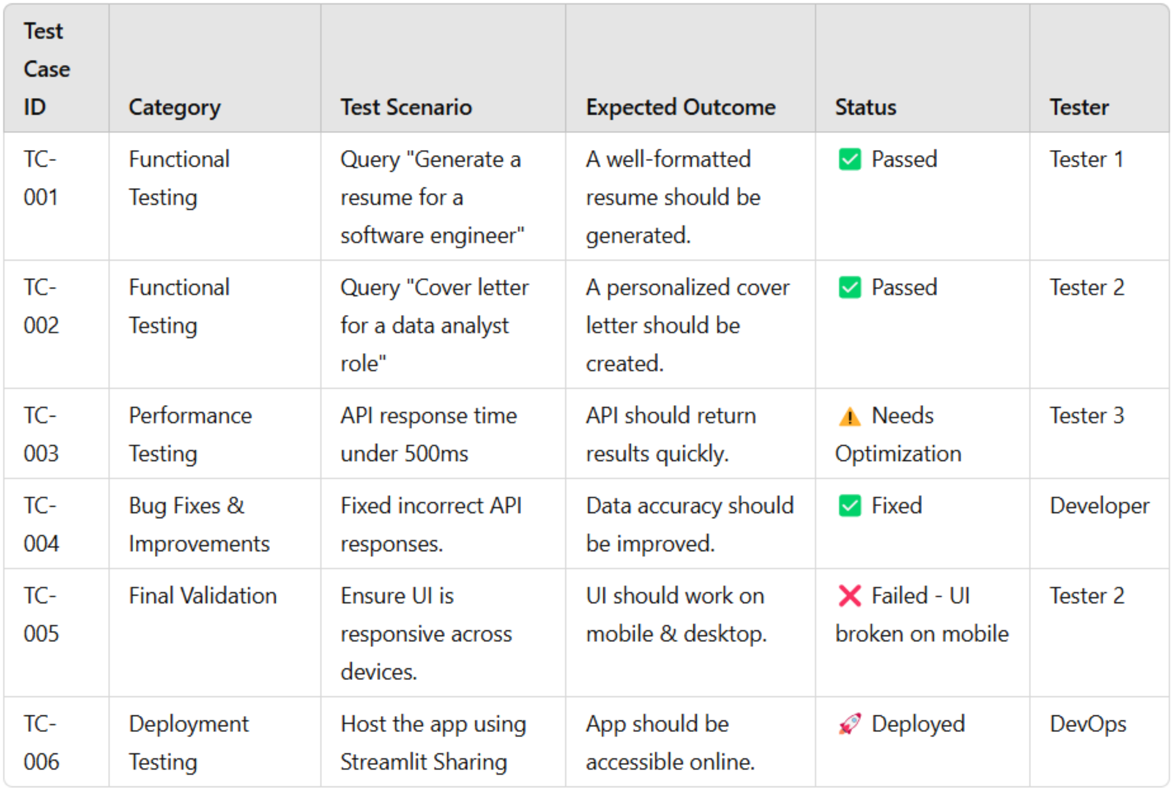
Key Points:

1. **Technology Stack Used:**
   - **Frontend:** Streamlit
   - **Backend:** Palm's text-bison-001 API
   - **Programming Language:** Python
2. **Development Process:**
   - Implement API key authentication and **Palm's text-bison-001** API integration.
   - Develop **resume generation, cover letter creation, and interview question suggestion** logic.
   - Optimize **search queries** for performance and relevance.
3. **Challenges & Fixes:**
   - **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:

Ensure that the Job swift works as expected.



Test Case ID	Category	Test Scenario	Expected Outcome	Status	Tester
TC-001	Functional Testing	Query "Generate a resume for a software engineer"	A well-formatted resume should be generated.	✅ Passed	Tester 1
TC-002	Functional Testing	Query "Cover letter for a data analyst role"	A personalized cover letter should be created.	✅ 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 API responses.	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**