Project Design Phase
Solution Architecture

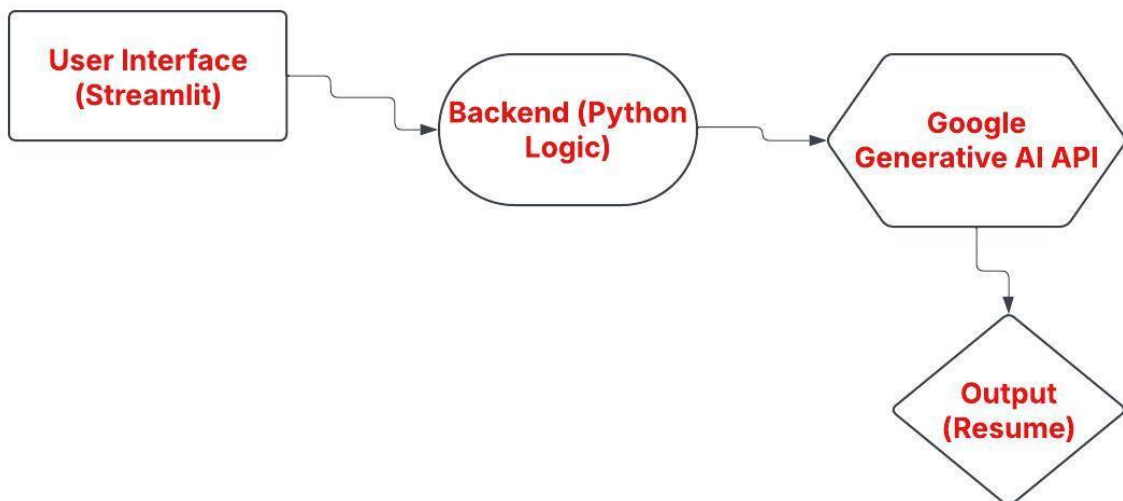| Date	15 February 2025
Team ID	PNT2025TMID01602
Project Name	Smart Resume Generator
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.

- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.

- Define features, development phases, and solution requirements.

- Provide specifications according to which the solution is defined, managed, and delivered.

Example - Solution Architecture Diagram:

Smart Resume Generator

Key Components of the Solution

Describe the key components of our solution architecture:

1. **User Interface:**

   o Built using Streamlit, a Python-based framework for creating web apps.

   o Allows users to input their details (name, job title, etc.) and view/download the generated resume.

2. **Backend Logic:**

   o Written in Python.

   o Handles user input, interacts with the Google Generative AI API, and processes the generated resume.

3. **Google Generative AI API:**

   o The core of the application, responsible for generating the resume content.

   o Uses the Gemini 1.5 Flash or Gemini 1.0 Pro model.

4. **Output:**

   o The generated resume is displayed to the user in the Streamlit app.

   o The user can download the resume as a text file.

Features and Development Phases:

1. **Features:**

   o Customized resume generation based on user input.

   o Clean and professional resume formatting.

   o Downloadable resume in text format.

2. **Development Phases:**

   o Phase 1: Design the user interface using Streamlit.

- o Phase 2: Implement backend logic to interact with the Google Generative AI API.

- o Phase 3: Integrate resume generation and cleaning logic.

- o Phase 4: Deploy the application using Streamlit Sharing or Heroku.

Solution Requirements:

1. **Technical Requirements:**

   - o Python 3.12.

   - o Streamlit for the user interface.

   - o Google Generative AI API for resume generation.

   - o Environment variables for API key management.

2. **Functional Requirements:**

   - o Users can input their details (name, job title, etc.).

   - o The application generates a professional resume based on the input.

   - o Users can view and download the resume.