Proposed Solution:

To address the specified features and usage requirements, our solution encompasses a comprehensive AI-driven career guidance platform designed to empower users in their career development journey. Here's how our solution aligns with the provided parameters:

User's & Admin Section:

Our platform features distinct sections for users and administrators. Users can access personalised career recommendations, resume scoring, writing tips, course suggestions, skills recommendations, and YouTube video recommendations. Meanwhile, administrators have access to additional functionalities such as user management, content moderation, and system configuration.

Resume Score:

We utilise machine learning algorithms to analyse uploaded resumes and generate a comprehensive score reflecting the quality, relevance, and effectiveness of the resume. This score is based on various factors including formatting, content, keywords, and relevance to the targeted job roles.

Career Recommendations:

Our AI-powered recommendation engine leverages natural language processing (NLP) models to provide personalised career recommendations based on user inputs, preferences, and career aspirations. These recommendations encompass job roles, industries, career paths, and skill development opportunities tailored to each user's profile.

Resume Writing Tips Suggestions:

In addition to resume scoring, our platform offers personalised resume writing tips and suggestions to help users optimise their resumes for maximum effectiveness. These suggestions cover aspects such as formatting, content organisation, language usage, and keyword optimization to enhance the user's chances of success in the job market.

Courses Recommendations:

Our platform integrates a curated collection of online courses relevant to various industries, job roles, and skill domains. These course recommendations are based on user preferences, career goals, and current market trends, providing users with valuable learning opportunities to upskill and advance their careers.

Skills Recommendations:

Utilising advanced data analytics and AI algorithms, our platform generates personalised skill recommendations tailored to each user's career goals, industry trends, and job market demands. These recommendations highlight key skills and competencies essential for

success in specific roles or industries, enabling users to prioritise their skill development efforts effectively.

YouTube Video Recommendations:

Our platform offers curated YouTube video recommendations covering a wide range of career-related topics, including job search strategies, interview preparation, career development tips, industry insights, and professional networking advice. These recommendations are selected based on user preferences, engagement history, and relevance to the user's career interests.

Solution Architecture:

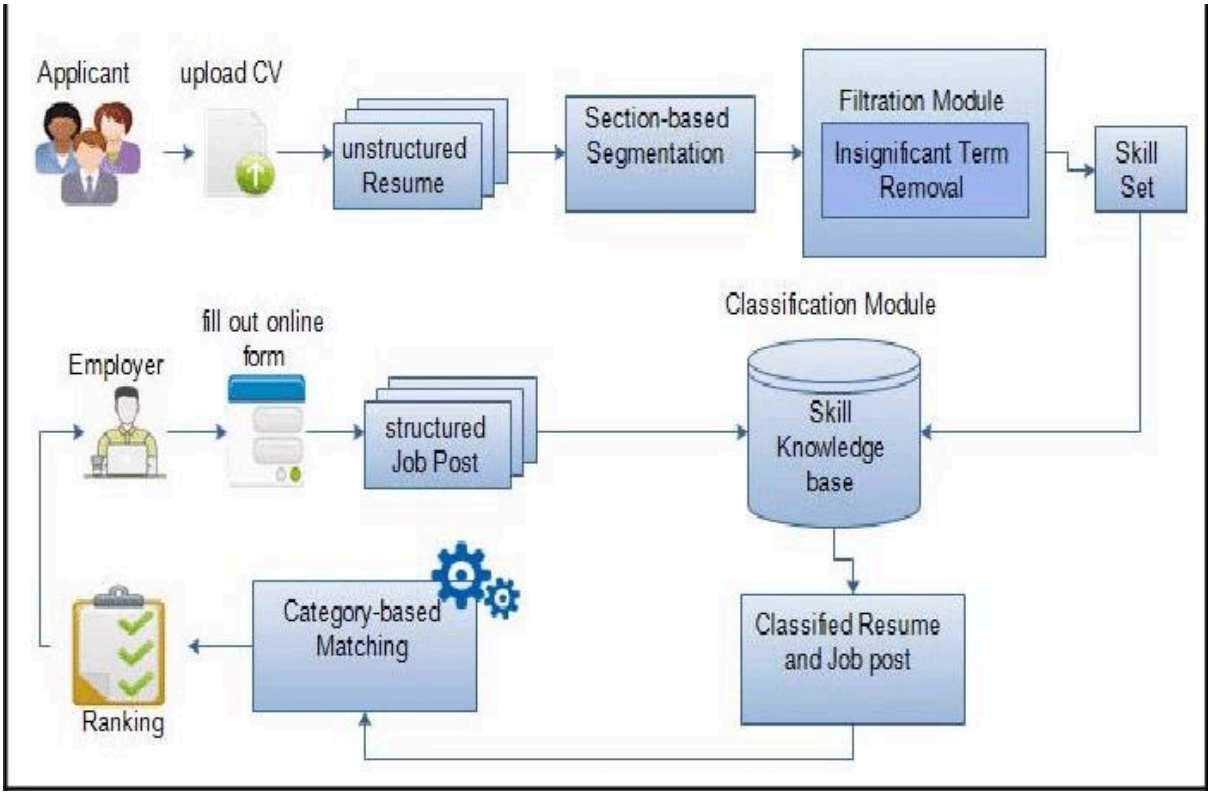
Our solution follows a modular architecture designed for scalability, flexibility, and efficiency. Here's an outline of the key components and data flow:

Components:

- Frontend Interface : Provides user-friendly access to various features and functionalities of the platform, including resume uploading, career recommendations, course suggestions, and skill assessments.
- Backend Server : Handles user requests, data processing, and integration with external APIs and services. Implements core functionalities such as resume scoring, recommendation generation, and content delivery.
- Database Management System : Stores user data, resumes, course information, skill profiles, and system configurations. Enables efficient data retrieval, storage, and management to support platform operations.
- Machine Learning Models : Utilised for resume scoring, career recommendation generation, and skill assessments. Trained on labelled datasets and updated periodically to improve accuracy and relevance.
- External APIs Integration : Integrates with external services such as YouTube API for video recommendations, course platforms for course suggestions, and NLP libraries for text analysis and processing.

Data Flow:

1. User interacts with the frontend interface, uploading a resume and providing career preferences.
2. Backend server processes the uploaded resume, scoring it based on predefined criteria and extracting relevant information.
3. Machine learning models analyse the resume content and generate a comprehensive score and feedback.
4. Based on user preferences and career goals, the recommendation engine generates personalised career, course, and skill recommendations.
5. YouTube video recommendations are curated based on user interests, engagement history, and trending topics.
6. The frontend interface displays the generated recommendations and feedback to the user, facilitating further interaction and exploration.



Progress Update:

We have made significant progress in conceptualising and designing our AI-driven career guidance platform, outlining its key features, architecture, and functionalities. Moving forward, our focus will be on implementing and integrating the various components, refining the machine learning models, and conducting rigorous testing to ensure platform reliability, accuracy, and user satisfaction.

Contribution :

Shreya Nalawade : Working on API from generation of Courses and materials.
Prasad Chaudhari : Working on ML Model and NLTK
Akash Fatnani : Working on integration of models with website and model training.