**Application Development -I**

A Application Development Report Submitted

In partial fulfillment of the requirements for the award of the degree of

**Bachelor of Technology**

**in**

**Computer Science and Engineering**

**by**

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(Autonomous Institution- UGC, Govt. of India)

(Affiliated to JNTUH, Hyderabad, Approved by AICTE, NBA &NAAC with ‘A’ Grade)

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**2021-2025**



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**CERTIFICATE**

This is to certify that this is the bonafide record of the project entitled “**Know Your Resume Rating**”, submitted by **Gottam Sai Charan Reddy(21N31A0579), H Prijwal Reddy(21N31A0583) and J Harshith Kumar(21N31A0589)** of B.Tech in the partial fulfillment of the requirements for the degree of Bachelor of Technology in Computer Science and Engineering, Department of CSE during the year 2023-2024. The results embodied in this project report have not been submitted to any other university or institute for the award of any degree or diploma.

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**DECLARATION**

We hereby declare that the major project titled **“Know Your Resume Rating”** submitted to Malla Reddy College of Engineering and Technology(UGC Autonomous), affiliated to Jawaharlal Nehru Technological University Hyderabad (JNTUH) for the award of the degree of Bachelor of Technology in Computer Science and Engineering is a result of original research carried- out in this thesis. It is further declared that the project report or any part thereof has not been previously submitted to any University or Institute for the award of a degree.

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**ACKNOWLEDGEMENT**

We feel honored to place our warm salutation to our college Malla Reddy College of Engineering and Technology (UGC-Autonomous) for giving us an opportunity to do this Project as part of our B.Tech Program. We are ever grateful to our **Director Dr. VSK Reddy** and **Principal Dr.S.Srinivasa Rao** who enabled us to have experience in engineering and gain profound technical knowledge.

We express our heartiest thanks to our **HOD, Dr. S. Shanthi** for encouraging us in every aspect of our course and helping us realize our full potential.

We would like to thank our **Project Guide Mr.P.A.Himakiran** for his regular guidance, suggestions and constant encouragement. We are extremely grateful to our **Project Coordinator Dr.N.Satheesh** for his continuous monitoring and unflinching co-operation throughout project work.

We would like to thank our **Class Incharge Mr.G.Manoj Kumar** who in spite of being busy with his/her academic duties took time to guide and keep us on the correct path.

We would also like to thank all the faculty members and supporting staff of the Department of CSE and all other departments who have been helpful directly or indirectly in making our project a success.

We are extremely grateful to our parents for their blessings and prayers for the completion of our project that gave us strength to do our project.

With regards and gratitude

**GOTTAM SAI CHARAN REDDY - (21N31A0579) H PRIJWAL REDDY - (21N31A0583)**

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# ABSTRACT

Making a standout CV is essential for job seekers in the cutthroat job market of today to land coveted employment chances. The "Know Your Resume Rating" initiative seeks to create a cutting-edge and user-friendly application that provides people with insightful information about the efficacy of their resumes. The tool will examine important aspects of a resume such content, structure, keywords, and formatting by utilizing cutting-edge natural language processing (NLP) methods and machine learning algorithms. The main goal of the project is to give users a quantitative and qualitative evaluation of their resumes so they can see where they excel and where they need to improve. The "Know Your Resume Rating" project's user-centric strategy seeks to close the gap between job seekers and potential employers, fostering more fruitful and valuable contacts in the labour market.The tool will provide tailored advice on how to improve content's visual appeal, job role specificity, and optimization. In order to increase job seekers' chances of landing interviews and ultimately accomplishing their professional goals, this project aims to provide them with a better understanding of the strengths and shortcomings of their CV. The "Know Your Resume Rating" project's user-centric strategy seeks to close the gap between job seekers and potential employers, fostering more fruitful and valuable contacts in the labour market.

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# INTRODUCTION

An inventive effort called "Know Your Resume Rating" aims to give people a thorough evaluation tool for their resumes. The importance of a well-written CV in today's competitive job market cannot be emphasized, and our initiative seeks to empower job searchers by providing a thorough resume review. The application "Know Your Resume Rating" provides tailored feedback on resume content, structure, keywords, and overall effect by utilizing state-of-the-art algorithms and industry best practices. In a work market that is continuously changing, this initiative aims to provide guidance to those who want to improve their professional profiles and increase the likelihood that they will get their ideal prospects.

* 1. **PURPOSE, AIM AND OBJECTIVES:**

### Purpose of the Project:

The purpose of "Know Your Resume Rating" is to equip individuals with the insights and tools necessary to optimize their resumes for success in the competitive job market. This project aims to offer a detailed evaluation and analysis of resumes, providing actionable feedback to enhance content, formatting, and relevance to specific industries or roles. By utilizing advanced algorithms and industry expertise, the project intends to demystify the resume evaluation process, empowering users to make informed decisions and improvements to their professional profiles. Ultimately, the purpose is to bridge the gap between applicants and their career aspirations by offering tailored guidance to create impactful resumes that stand out to potential employers.

**1. Empowerment via Insight:** The project's primary goal is to empower people by giving them thorough resume analyses that highlight their strengths, shortcomings, and potential growth areas.

**2. Improved Job Chances:** The initiative aims to improve users' job chances by emphasizing areas that can favorably attract recruiters' attention by providing a thorough review.

**3. Customized input:** Users may improve their resumes in accordance with industry standards and become more competitive in the job market by using customized input on content, layout, and keywords.

**4. Objective Evaluation:** By utilizing cutting-edge algorithms, the project provides an unbiased evaluation that guarantees each resume is rated fairly and impartially.

**5. Adaptability and Growth:** It is a tool for ongoing development, helping people to modify their resumes for better prospects and adjust to changing job market trends.

### Aim of the Project:

The "Know Your Resume Rating" project's main goal is to provide people with a thorough and user-friendly tool for assessing and improving their resumes. The project aims to accomplish the following goals:

**1. Empowerment via Insights:** Give users thorough feedback and insights on their resumes so they may see their strengths, flaws, and potential development areas.

**2. Promote Professional Development:** Help people improve their resume-writing abilities by providing them with specific advice and best practices to help them produce powerful resumes that adhere to industry norms.

**3. Enhance Career Opportunities:** boost users make resumes that catch recruiters' attention to increase their chances of landing the jobs they want. This will boost users' career prospects.

**4. Promote Continuous development:** Promote a culture of continuous development in resume writing by acting as a catalyst for growth and adaptability to shifting trends in the job market.

**5. Accessibility and User-Friendliness:** Provide a user-friendly and accessible platform that supports people at all career phases, guaranteeing inclusiveness and simplicity of use for every user looking to improve their CV.

### Objectives of the project:

**1. The creation of algorithms for evaluation:**

Develop powerful algorithms that can evaluate resumes according to several criteria, such as formatting, overall effect, keyword optimization, and relevancy of the content.

**2. User-Friendly Interface:** Create an interface that is easy to use and intuitive so that people with different backgrounds and degrees of resume writing experience may utilize it.

**3. Personalized Feedback Generation:** For each user's resume, provide a personalized feedback report that highlights certain areas for strength and growth.

**4. Integration of Best Practices:** To guarantee that the guidance given is current and in line with expectations of the job market, integrate industry best practices and emerging trends in the resume review process.

**5. Scalability and Accessibility:** Make sure the platform can accommodate a large user base and is accessible on a variety of platforms and devices for broad usage.

**6. Continuous Improvement Mechanism:** To continuously improve the assessment process, implement a method for enhancement based on user input and technical developments.

**7. Provision of Educational Resources:** Provide additional materials and instructions to help users comprehend and put into practice the recommendations made, encouraging lifelong learning and the advancement of resume-writing skills.

**8. Security and Privacy Measures:** Put strict security measures in place to protect user information and guarantee privacy when reviewing resumes.

## BACKGROUND OF PROJECT:

**Background of "Know Your Resume Rating"**

In the modern professional landscape, a well-crafted resume serves as a pivotal tool for individuals seeking employment opportunities. However, the nuances of what constitutes an impactful resume often elude many job seekers. Recognizing this gap between a standard resume and one that stands out to potential employers, the "Know Your Resume Rating" project emerges from a background steeped in addressing these challenges.

**Evolution of Job Market Dynamics:**

Rapid changes in job market dynamics, industry requirements, and technological advancements have reshaped the expectations surrounding resumes. Employers increasingly seek specific skill sets and experiences highlighted succinctly in a resume.

**Complexity in Resume Assessment:**

Evaluating the effectiveness of a resume involves a multifaceted analysis encompassing content relevance, formatting, use of keywords, and overall visual impact. This complexity often leaves individuals uncertain about how to optimize their resumes for maximum impact.

**Empowerment Through Insights:**

Recognizing the significance of a well-tailored resume in career progression, the "Know Your Resume Rating" project aims to empower individuals by providing them with actionable insights and feedback to enhance their resumes.

**Technology and Innovation:**

Leveraging advancements in natural language processing (NLP), machine learning, and data analytics, the project endeavors to offer an automated and comprehensive evaluation process, ensuring objectivity and relevance in the feedback provided.

**Bridging the Gap:**

By bridging the gap between traditional resume-writing techniques and the demands of a contemporary job market, this project endeavors to equip individuals with the tools and knowledge to craft resumes that capture attention and open doors to diverse career opportunities.

## EXISTING SYSTEM:

**1. Algorithmic Framework:**

The existing system utilizes a sophisticated algorithmic framework to assess resumes based on criteria such as content relevance, formatting, keyword optimization, and visual appeal. This framework forms the backbone of the evaluation process.

**2. User Interface Design:**

The user interface offers a seamless experience, allowing users to upload their resumes and receive evaluations. It features an intuitive dashboard catering to users at various career stages.

**3. Feedback Generation Mechanism:**

Upon analysis, the system generates personalized feedback reports for each resume, pinpointing strengths and areas for improvement. The feedback mechanism provides actionable recommendations aligned with industry standards.

**4. Adaptability and Updates:**

The system undergoes regular updates to align with evolving industry trends, ensuring that the evaluation criteria remain relevant and beneficial for users. It employs adaptive mechanisms to enhance accuracy and relevance.

**5. Educational Resources Integration:**

Supplementary resources, including articles, videos, and tutorials, complement the evaluation process. These resources aid users in understanding the feedback and implementing suggested improvements effectively.

**6. Security and Confidentiality Measures:**

The system adheres to stringent security protocols to safeguard user data and ensure confidentiality throughout the evaluation process, maintaining trust and privacy for users.

**7. User Feedback Integration:**

User feedback forms a critical component for system enhancements. Iterations and improvements are made based on user experiences and suggestions gathered through various feedback channels.

**8. Scalability and Performance:**

The system is designed for scalability, ensuring consistent performance even with a growing user base. Performance metrics are regularly monitored to maintain system efficiency.

**9. Launch and Outreach Strategies:**

The system has undergone strategic launches and outreach efforts, collaborating with educational institutions, career services, and industry professionals to reach a wide audience of job seekers.

## PROPOSED SYSTEM:

**1. Algorithm Development and Integration:** Create sophisticated algorithms that can evaluate resumes according to a range of standards particular to the business, including formatting, keyword optimization, content relevancy, and industry norms.

To automate the review process, include these algorithms into a user-friendly platform.

**2. User-Friendly Interface Design:** Create an interface that is easy to use on all platforms, making it simple for users to submit their resumes and get feedback.

Make sure users at all career phases have access to an intuitive dashboard with clear instructions.

**3. tailored Feedback Generation:** Put in place a system that will provide each uploaded resume with a tailored feedback report that highlights its advantages and disadvantages.

Provide people practical advice and ideas to help them improve their resumes.

**4. Continuous Updates and Adaptation:** Make sure the feedback is still applicable and has an impact by updating the assessment criteria on a regular basis to reflect changing employer expectations and industry trends.

Utilize machine learning strategies to modify the assessment procedure in response to user input and interactions.

**5. Educational Materials and Assistance:** Provide users with additional materials on the platform, including articles, videos, and tutorials, to help them comprehend and apply recommended enhancements.

Establish a support system so that users may ask questions and get more help with their assessments.

**6. Security and Privacy Measures:** To guarantee user data confidentiality during the assessment process, put strong security measures into place.

To gain consumers' confidence, follow strict privacy guidelines and data protection laws.

**7. Beta Testing and User Feedback Integration:** Utilize user experiences and ideas to inform platform iterations. Conduct beta testing rounds to collect user feedback and insights.

Implement user-centered features to raise platform efficacy and user contentment.

**8. Strategy for Launch and Outreach:**

Create a thorough launch plan that includes marketing tactics to connect with a large number of job searchers.

Work together to market the platform and its advantages with career services, educational institutions, and business professionals.

**9. Monitoring and Iterative Enhancement:** Put monitoring systems in place to keep tabs on user happiness, engagement, and assessment efficacy.

To guarantee continual progress, iterate and upgrade the platform often depending on user input, technology improvements, and analytics.

## SCOPE OF PROJECT:

**1. Resume Evaluation Parameters:** The project's goal is to assess resumes according to a number of factors, such as how well they present professional accomplishments overall and how relevant their content is, as well as how well they are formatted and optimized for keywords.

**2. Tailored Feedback:** The project evaluates each resume based on its strengths and deficiencies and provides users with precise recommendations for development that are in line with industry standards.

**3. Using a user-centric approach,** the platform is designed to support users at all career levels, from novices to seasoned professionals, making sure the guidance offered meets a range of career goals.

**4. Adaptability to Industry Trends:** Keeping assessment criteria up to date with changing employer expectations and industry trends is essential to ensuring that feedback is meaningful and relevant.

**5. Accessibility and Scalability:** guaranteeing accessibility on many platforms and devices, providing users with broad access to the assessment tool, and building the platform to support scalability for an expanding user base.

**6. Educational Materials and Tutorials:** Providing users with additional materials, tutorials, and guides to help them comprehend the comments they get will enable them to keep improving their resume-building abilities.

**7. Data Security and Confidentiality:** Ensuring the protection of users' personal information by putting strong security measures in place to protect user data and maintain confidentiality throughout the assessment process.

**8. Iterative Process for Continuous Improvement:** By incorporating user feedback and technical improvements, the assessment process may be improved iteratively to make it more insightful, accurate, and helpful for users.

# 2. SYSTEM ANALYSIS

System analysis for the "Know Your Resume Rating" project involves a detailed examination of the project's requirements, goals, and functionalities. Here is a system analysis of the project: **Requirement Analysis:**

* **User Requirements:** The primary user requirement is the ability to upload Resume for Resume Rating and Recommendation. Users expect accurate predictions and informative content about there resumes.
* **Technical Requirements:** The project requires a web-based interface for user interaction, a deep learning model for image classification, and external libraries for text analysis and web development.

## HARDWARE AND SOFTWARE REQUIREMENTS

* + 1. **HARDWARE REQUIREMENTS:**

**Processor :** Intel or AMD.

**Ram :** 1 GB or above.

**Hard disk :** 50GB or above.

## SOFTWARE REQUIREMENTS:

**Technology/Language :** Python 3.9.

**Software :** Flask,Pandas,Python

Streamlit,Spacy,Mysql

Xampp, pdfminer3

**Operating System :** Windows 7+, Linux, Mac. **IDE :** PyCharm

## SOFTWARE REQUIREMENT SPECIFICATION:SRS:

### Software Requirement Specification (SRS) for Brain Tumor Detector

1. **Introduction:** The "Know Your Resume Rating" project aims to provide a sophisticated, user-centric platform designed to evaluate and enhance resumes effectively. In a highly competitive job market, the significance of a well-crafted resume is paramount. This project addresses the gap between conventional resume-building practices and the dynamic expectations of recruiters by offering a comprehensive evaluation system.

### Functional Requirements:

**Resume Upload and Evaluation:**

Resume Submission: Allow users to upload their resumes through supported file formats (e.g., PDF, DOCX).

Evaluation Criteria: Implement algorithms to assess resumes based on content relevance, formatting, keyword optimization, and visual appeal.

Feedback Generation: Generate personalized feedback reports highlighting strengths and areas for improvement in the uploaded resumes.

Recommendations: Provide actionable suggestions aligned with industry standards for enhancing the resumes.

**User Interface and Experience:**

Intuitive Interface: Design a user-friendly dashboard allowing easy resume upload and displaying evaluation results.

Accessibility: Ensure the platform is accessible across various devices and screen sizes for a seamless user experience.

Educational Resources Integration: Incorporate supplementary materials (articles, videos, tutorials) aiding users in implementing suggested improvements effectively.

**System Administration:**

Admin Dashboard: Provide an administrative panel to manage user accounts, oversee system operations, and monitor user activities.

Maintenance Tools: Enable system administrators to perform routine maintenance tasks, manage system updates, and handle technical issues.

User Support: Implement a support mechanism for users to seek assistance, report issues, and receive guidance.

**Security and Privacy:**

Data Protection: Implement robust security measures to safeguard user data and ensure compliance with data protection regulations.

Secure Transactions: Ensure secure transmission of data during resume upload and evaluation processes.

Confidentiality: Maintain confidentiality in evaluation reports, restricting access to authorized users only.

**Adaptability and Updates:**

Dynamic Evaluation Criteria: Allow for the adaptation of evaluation criteria based on evolving industry trends and user feedback.

Version Control: Implement a mechanism to manage and track system updates, ensuring the availability of the latest features and improvements

### Hardware Requirements:

* + Standard server infrastructure for hosting the web application and ML model.

### Future Enhancements:

**1. Enhanced Evaluation Algorithms:**

Advanced NLP Techniques: Incorporate advanced natural language processing (NLP) algorithms to improve the accuracy and depth of resume analysis.

Semantic Analysis: Implement semantic analysis capabilities to better understand context and meaning within resumes.

**2. AI-Powered Recommendation System:**

Machine Learning Integration: Introduce machine learning models to provide more accurate and personalized recommendations for resume improvement.

Behavioral Analysis: Utilize user behavior data to offer tailored suggestions based on user preferences and job application trends.

**3. Expanded User Guidance and Resources:**

Interactive Learning Modules: Develop interactive modules and quizzes to educate users on resume writing best practices in a more engaging manner.

Industry-Specific Guides: Provide specialized guidance for various industries or job sectors, tailoring suggestions to specific career paths.

**4. Multi-Lingual Support and Localization:**

Language Expansion: Extend support for multiple languages to evaluate resumes in languages beyond the default English.

Localization: Customize the platform to adapt to different regional preferences and standards for global users.

**5. Collaboration and Networking Features:**

Networking Capabilities: Introduce networking features allowing users to connect with recruiters, mentors, or other professionals within the platform.

Collaborative Editing: Enable collaborative editing functionalities to allow users to seek peer reviews and suggestions on their resumes.

**6. Integration with Job Platforms:**

API Integration: Collaborate with job search platforms to seamlessly integrate resume evaluation tools directly into job application processes.

Job Matching Algorithms: Develop algorithms to match evaluated resumes with suitable job listings, enhancing user job search experiences.

**7. Mobile Application Development:**

Mobile App Deployment: Extend the platform's accessibility by developing dedicated mobile applications for both iOS and Android devices.

Mobile Optimization: Ensure a seamless user experience with responsive design and optimized features for mobile users.

### Constraints:

**1. Technology Limitations:**

Compatibility: The platform's functionality might be constrained by the compatibility of certain features with specific devices, browsers, or operating systems.

Third-Party Integration: Constraints may arise from limitations or changes in APIs or third-party tools integrated within the platform.

## ROLE OF SRS:

The purpose of the Software Requirement Specification is to reduce the communication gap between the clients and the developers. Software Requirement Specification is the medium through which the client and user needs are accurately specified. It forms the basis of software development. A good SRS should satisfy all the parties involved in the system.

## SCOPE:

**1. Objective:**

The primary objective of the "Know Your Resume Rating" project is to offer a comprehensive platform that empowers users to evaluate, enhance, and optimize their resumes effectively. The scope encompasses providing personalized feedback, educational resources, and tools to aid users in creating impactful resumes aligned with industry standards.

**2. Functional Scope:**

Resume Evaluation System: The platform will feature an algorithmic framework capable of assessing resumes based on content relevance, formatting, keyword optimization, and visual appeal.

Feedback Generation: Personalized feedback reports will be generated for each uploaded resume, highlighting strengths and areas for improvement.

Educational Resources: Supplementary resources, including articles, videos, and tutorials, will aid users in implementing suggested improvements effectively.

**3. User Interaction:**

User Interface: The platform will offer an intuitive and user-friendly interface allowing seamless resume upload, evaluation, and presentation of feedback reports.

User Profiles: Users will have the ability to create and manage their profiles, enabling them to track their resume enhancement progress.

**4. System Administration:**

Admin Panel: Administrators will have access to a dashboard to manage user accounts, oversee system operations, and provide user support.

**5. Security and Privacy:**

Data Protection: Robust security measures will be in place to ensure the confidentiality and protection of user data throughout the evaluation process.

Compliance: Adherence to data protection regulations and privacy standards to maintain user trust and comply with legal requirements.

**6. Scalability and Adaptability:**

Scalability: The platform will be designed to handle a growing user base, ensuring consistent performance even with increased user loads.

Adaptability: Regular updates to evaluation criteria and functionalities will align with evolving industry trends and user feedback.

**7. Accessibility and Inclusivity:**

Device Agnostic: The platform will aim to be accessible across various devices, browsers, and operating systems to cater to a wide user base.

Inclusivity: Efforts will be made to ensure inclusivity, considering diverse user needs, including users with disabilities or accessibility requirements.

**8. Continuous Improvement:**

Iterative Development: The project will follow an iterative development approach, incorporating user feedback and technological advancements for continual enhancements.

User Feedback Mechanism: A system will be in place to gather user feedback to drive improvements and feature enhancements.

**9. Educational Outreach:**

Collaborations: Collaboration efforts with educational institutions, career services, and industry professionals to promote the platform and its benefits.

Resource Expansion: Continual expansion of educational resources and guides to cater to various career stages and industry domains.

# 3. SYSTEM DESIGN & UML DIAGRAMS

System design is transition from a user oriented document to programmers or data base personnel. The design is a solution, how to approach to the creation of a new system. This is composed of several steps. It provides the understanding and procedural details necessary for implementing the system recommended in the feasibility study. Designing goes through logical and physical stages of development, logical design reviews the present physical system, prepare input and output specification, details of implementation plan and prepare a logical design walkthrough.

## SOFTWARE DESIGN:

1. **Frontend Interface (Using Streamlit):**

* **File Upload Component:**
  + Allows users to upload their resumes in supported formats (PDF, DOCX).
* **Display of Evaluation Results:**
  + Shows the user's resume evaluation and feedback generated based on analysis.
* **User Profile Management:**
  + Interface for users to manage their profiles and view their improvement history.

2. **Backend Logic (Using Python):**

* **Data Processing:**
  + Utilize Pandas to handle data preprocessing tasks, cleaning resume data for analysis.
* **Natural Language Processing (NLP) with spaCy:**
  + Analyze resumes using spaCy's NLP capabilities for content relevance, keyword optimization, and formatting.
* **Feedback Generation:**
  + Generate personalized feedback reports based on the evaluation results using NLTK for linguistic analysis and recommendation generation.

3. **Database Management (Using Pandas or Database Integration):**

* **Temporary Storage:**
  + Store temporarily uploaded resumes and analysis results using Pandas DataFrames.
* **Long-term Storage (Optional):**
  + Integrate a database (like SQLite or PostgreSQL) for persistent storage of user profiles, evaluation history, and feedback reports.

4. **External Integrations (Educational Resources and Job Platforms):**

* **Educational Resources:**
  + Integrate external APIs or scrape educational platforms to provide supplemental resources for users.
* **Job Platforms:**
  + Explore API integration with job search platforms for direct application using evaluated resumes.

5. **Deployment and Monitoring:**

* **Deployment on Streamlit Sharing or Cloud Platforms:**
  + Deploy the application on Streamlit Sharing or cloud platforms like AWS, Google Cloud, or Azure.
* **Monitoring and Logging:**
  + Implement monitoring tools and logging mechanisms to track application performance and user interactions.

**Workflow:**

1. User uploads a resume through the Streamlit interface.
2. Backend processes the uploaded resume using spaCy and NLTK for evaluation.
3. Feedback and evaluation results are displayed to the user via the Streamlit frontend.
4. User profiles and evaluation history are managed and stored for future reference.
5. External integrations provide additional resources for users' career development.
6. Continuous monitoring ensures application stability and performance.

## ARCHITECTURE:

Designing the architecture for the "Know Your Resume Rating" project involves outlining the structural components, interactions, and technologies to ensure the system's functionality and scalability. Here's an overview of a potential architecture:

**System Architecture:**

**1. Client-Side:**

**Frontend Interface:**

Purpose: Provides the user interface for resume upload, display of evaluation results, and user interactions.

Technologies: HTML, CSS, JavaScript frameworks (React, Vue.js), enabling an intuitive and responsive UI/UX.

**2. Server-Side:**

**Web Server:**

Purpose: Handles client requests, manages application logic, and interacts with the database.

Technologies: Frameworks like Flask or Django (Python), handling routing, request handling, and response generation.

**Application Logic:**

Purpose: Contains the core functionalities, including resume evaluation, feedback generation, user authentication, and profile management.

Technologies: Python for algorithm implementation, NLP libraries (such as spaCy) for resume analysis, machine learning models for recommendation systems.

**Database Management System (DBMS):**

Purpose: Stores user data, resumes, feedback reports, and system configurations.

Technologies: SQL-based systems (e.g., PostgreSQL, MySQL) or NoSQL (e.g., MongoDB) depending on data structure and scalability needs.

**3. External Integrations:**

**Educational Resources:**

Purpose: Integration with third-party platforms providing educational materials for resume improvement and career development.

Technologies: API integrations or web scraping for accessing and presenting supplementary resources.

**Job Platforms:**

Purpose: Integration with job search platforms for seamless job application using evaluated resumes.

Technologies: API integrations, ensuring compatibility and data exchange between platforms.

**4. System Deployment**:

**Cloud Services or Hosting:**

Purpose: Deployment of the application for accessibility and scalability.

Technologies: Cloud platforms (AWS, Google Cloud, Azure) or web hosting services for application deployment.

**5. Monitoring and Maintenance:**

**Performance Monitoring:**

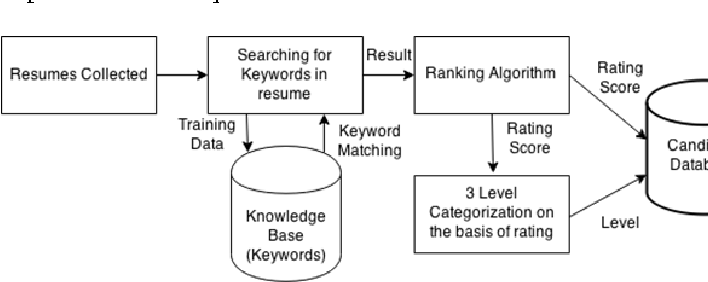
Purpose: Regularly monitors system performance, server load, and user engagement metrics.

Technologies: Monitoring tools, logging, analytics platforms to track key metrics.

Maintenance & Updates:

Purpose: Ensures the system's smooth operation through bug fixes, updates, and improvements.

Technologies: Version control systems (Git), deployment pipelines for continuous integration and deployment (CI/CD).



**FIGURE 4.2: SYSTEM FLOW DIAGRAM**

## UNIFIED MODELING LANGUAGE (UML) :

The unified modeling is a standard language for specifying, visualizing, constructing and documenting the system and its components is a graphical language which provides a vocabulary and set of semantics and rules. The UML focuses on the conceptual and physical representation of the system. It captures the decisions and understandings about systems that must be constructed. It is used to understand, design, configure and control information about the systems.

Depending on the development culture, some of these artifacts are treated more or less formally than others. Such artifacts are not only the deliverables of a project; they are also critical in controlling, measuring, and communicating about a system during its development and after its deployment.

The UML addresses the documentation of a system's architecture and all of its details. The UML also provides a language for expressing requirements and for tests. Finally, the UML provides a language for modeling the activities of project planning and release management.

## BUILDING BLOCKS OF UML:

The vocabulary of the UML encompasses three kinds of building blocks:

* + - * Things.
      * Relationships.
      * Diagrams.

## Things in the UML:

Things are the abstractions that are first-class citizens in a model; relationships tie these things together; diagrams group interesting collections of things.

There are four kinds of things in the UML:

1)Structural things.2)Behavioral things.3)Grouping things.4)Annotational things.

1. **Structural things** are the nouns of UML models. The structural things used in the project design are:
   * First, a **class** is a description of a set of objects that share the same attributes, operations, relationships and semantics.

|  |
| --- |
| Window |
| origin  size |
| open() close() move()  display() |

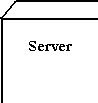
### Fig: Classes

* + Second, a **use case** is a description of set of sequence of actions that a system performs that yields an observable result of value to particular actor.



### Fig: Use Cases

* + Third, a node is a physical element that exists at runtime and represents a computational resource, generally having at least some memory and often processing capability.



### Fig: Nodes

1. **Behavioral things** are the dynamic parts of UML models. The behavioral thing used is:
   * Interaction: An interaction is a behavior that comprises a set of messages exchanged among a set of objects within a particular context to accomplish a

including messages, action sequences (the behavior invoked by a message, and links (the connection between objects).

## Relationships in the UML:

There are four kinds of relationships in the UML:

* + - * + Dependency.
        + Association.
        + Generalization.
        + Realization.
* A **dependency** is a semantic relationship between two things in which a change to one thing may affect the semantics of the other thing (the dependent thing).



### Fig: Dependencies

* An **association** is a structural relationship that describes a set links, a link being a connection among objects. Aggregation is a special kind of association, representing a structural relationship between a whole and its parts.



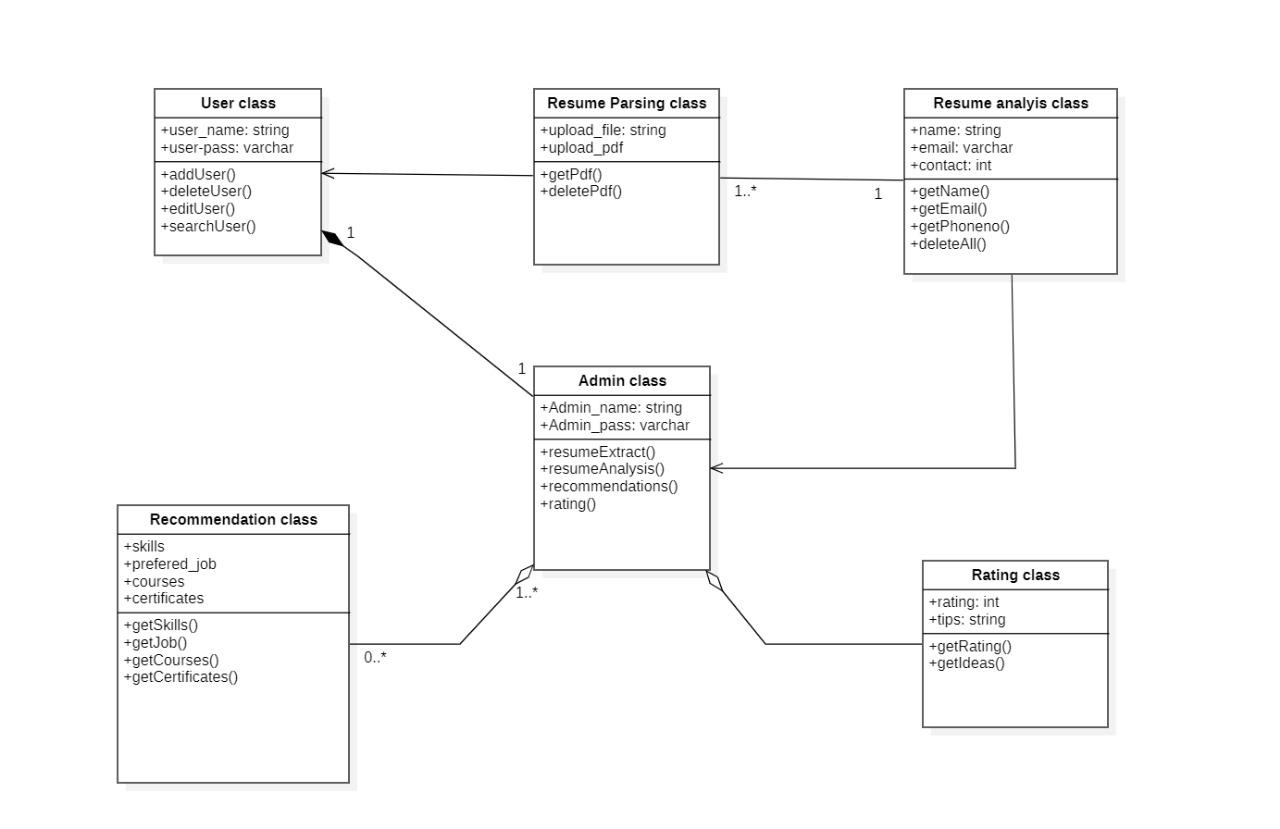
### Fig: Association

* A **generalization** is a specialization/ generalization relationship in which objects of thespecialized element (the child) are substitutable for objects of the generalized element(the parent).

## UML DIAGRAMS:

**CLASS DIAGRAM:**

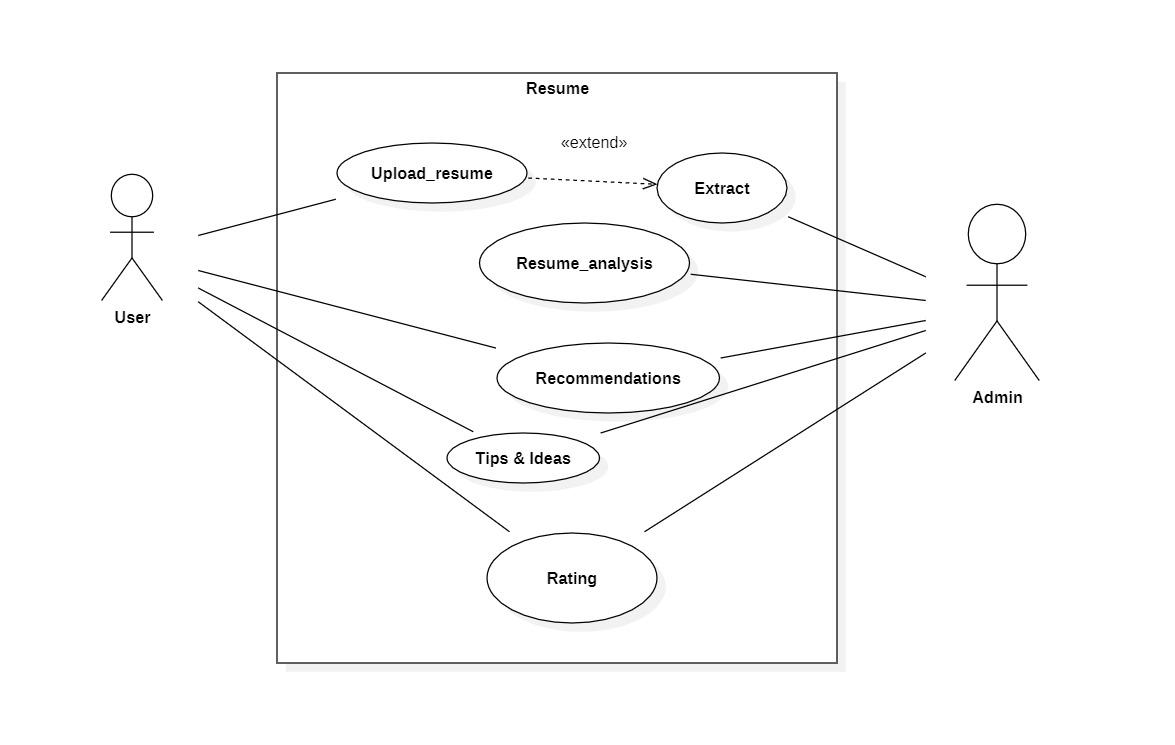
A class is a representation of an object and, in many ways; it is simply a template from which objects are created. Classes form the main building blocks of an object-oriented application. Although thousands of students attend the university, you would only model one class, called User, which would represent the represent the entire collection of resumes.



**FIGURE 4.3.2.1: CLASS DIAGRAM**

## USE CASE DIAGRAM:

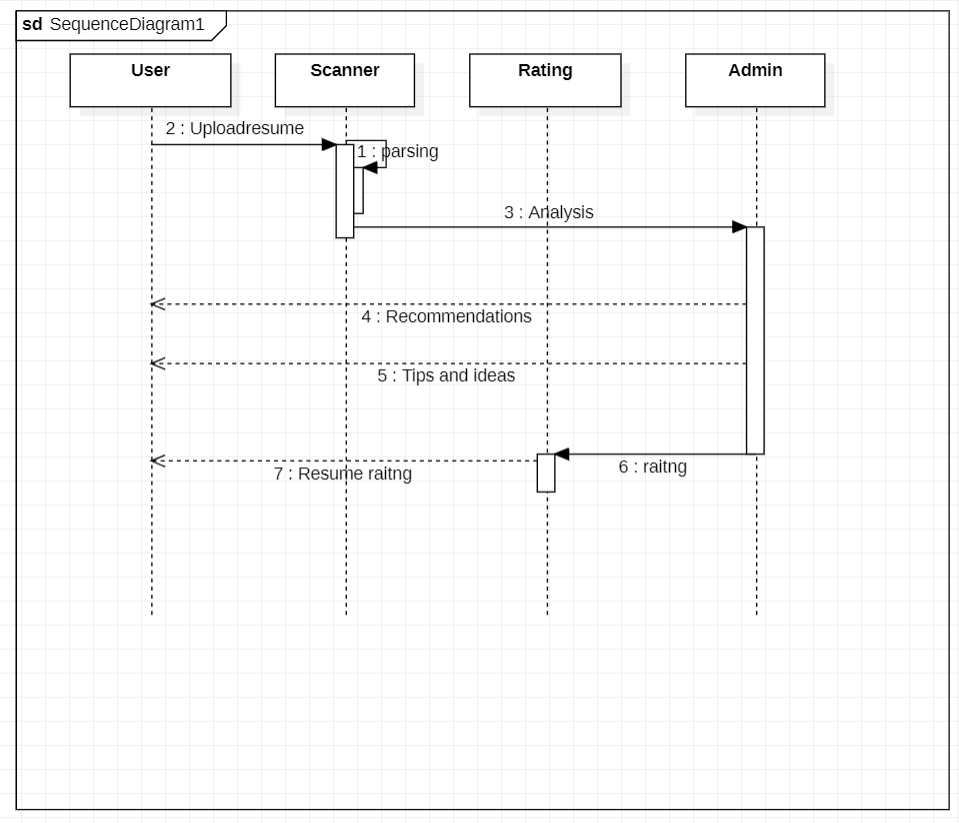
A use case diagram is a graph of actors set of use cases enclosed by a system boundary, communication associations between the actors and users and generalizationamong use cases. The use case model defines the outside (actors) and inside (use case) of the system’s behavior.

****

**FIGURE 4.3.2.2: USE CASE DIAGRAM**

## SEQUENCE DIAGRAM:

**Sequence diagram** are used to represent the flow of messages, events and actions between the objects or components of a system. Time is represented in the vertical direction showing the sequence of interactions of the header elements, which are displayed horizontally at the top of the diagram.

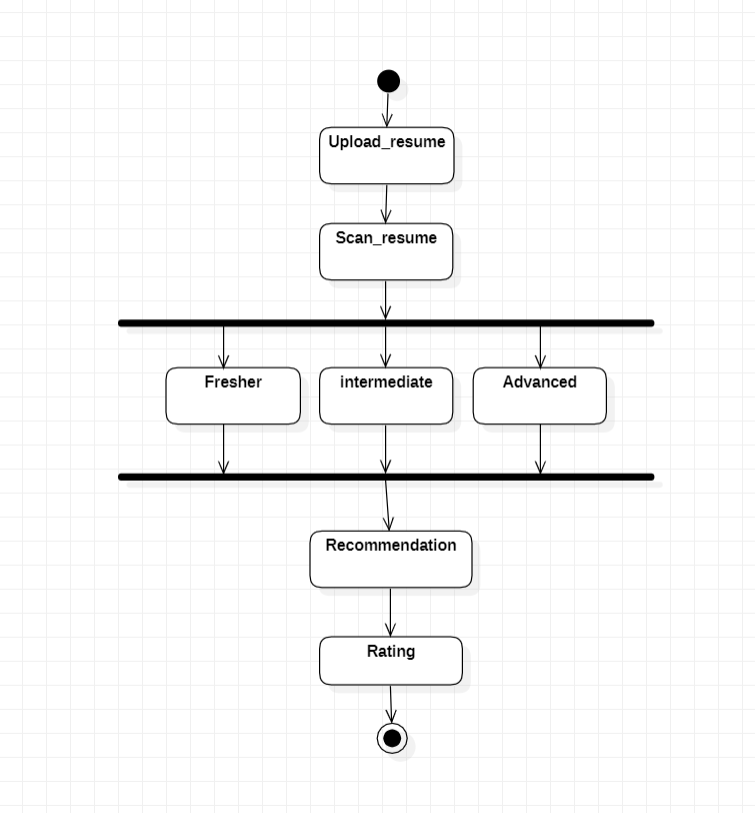


**FIGURE 4.3.2.3: SEQUENCE DIAGRAM**

## ACTIVITY DIAGRAM:

**Activity diagram** represent the business and operational workflows of a system. An Activity diagram is a dynamic diagram that shows the activity and the event that causes the object to be in the particular state.

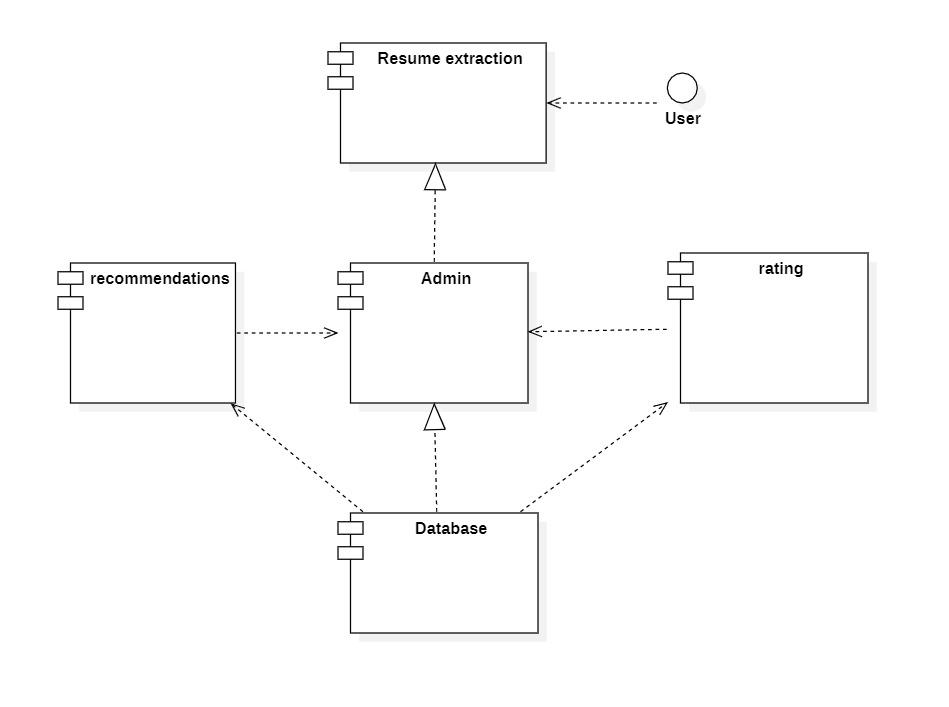
These transitions depict the activities causing these transitions, shown by arrows.

****

**FIGURE 4.3.2.4: ACTIVITY DIAGRAM**

## COMPONENT DIAGRAM:

In the Unified Modeling Language, a **Component diagram** depicts how components are wired together to form larger components and or software systems. They are used to illustrate the structure of arbitrarily complex systems.



**FIGURE 4.3.2.5: COMPONENT DIAGRAM**

**4 METHODOLGY**

## 4.1 MODULES DESCRIPTION:

The “Know Your Resume Rating" project comprises several modules, each serving a specific purpose in the application. Here are descriptions of the key modules:

**Resume Upload and Evaluation:**

Purpose: Responsible for handling the resume submission, evaluation, and feedback generation.

Features:

Resume upload functionality supporting multiple file formats.

Algorithmic evaluation based on content relevance, formatting, keyword optimization, and visual appeal.

Generation of personalized feedback reports highlighting strengths and areas for improvement.

**User Interface and Experience:**

Purpose: Focuses on designing an intuitive and user-friendly interface.

Features:

Dashboard for resume upload and display of evaluation results.

Accessibility across various devices and screen sizes.

Integration of educational resources aiding users in implementing suggested improvements.

**System Administration:**

Purpose: Handles administrative tasks and user support.

Features:

Admin dashboard for managing user accounts and overseeing system operations.

Tools for routine maintenance, updates, and handling technical issues.

Support mechanism to assist users with queries and issues.

**Security and Data Protection:**

Purpose: Ensures the security and confidentiality of user data.

Features:

Implementation of robust security measures for data protection.

Compliance with data protection regulations (GDPR, CCPA).

onfidential handling of personally identifiable information (PII) and user-generated content.

**Adaptability and Continuous Improvement:**

Purpose: Allows for adaptability to industry trends and user feedback.

Features:

Regular updates to evaluation criteria based on evolving industry standards.

Integration of user feedback to enhance functionalities iteratively.

Version control for managing and tracking system updates.

**Educational Resources Integration:**

Purpose: Provides supplementary materials for user guidance.

Features:

Integration of articles, videos, tutorials aiding users in resume enhancement.

Customized guidance for various career stages and industries.

Interactive learning modules for engaging user education.

**Performance Monitoring and Analytics:**

Purpose: Monitors system performance and user engagement.

Features:

User insights dashboard displaying analytics on resume performance metrics and user engagement.

Reporting tools for generating custom reports based on evaluation data.

Continuous monitoring of performance metrics for system efficiency.

# 5. IMPLEMENTATION

**SOURCE CODE**

App.py:

import streamlit as st

import nltk

import spacy

model\_path="~/.local/lib/python3.X/site-packages/en\_core\_web\_sm"

nltk.download('stopwords')

spacy.load(model\_path)

import pandas as pd

import base64, random

import time, datetime

from pyresparser import ResumeParser

from pdfminer3.layout import LAParams, LTTextBox

from pdfminer3.pdfpage import PDFPage

from pdfminer3.pdfinterp import PDFResourceManager

from pdfminer3.pdfinterp import PDFPageInterpreter

from pdfminer3.converter import TextConverter

import io, random

from streamlit\_tags import st\_tags

from PIL import Image

import pymysql

from Courses import ds\_course, web\_course, android\_course, ios\_course, uiux\_course, resume\_videos, interview\_videos

import pafy

import plotly.express as px

import youtube\_dl

def fetch\_yt\_video(link):

video = pafy.new(link)

return video.title

def get\_table\_download\_link(df, filename, text):

"""Generates a link allowing the data in a given panda dataframe to be downloaded

in: dataframe

out: href string

"""

csv = df.to\_csv(index=False)

b64 = base64.b64encode(csv.encode()).decode() # some strings <-> bytes conversions necessary here

# href = f'<a href="data:file/csv;base64,{b64}">Download Report</a>'

href = f'<a href="data:file/csv;base64,{b64}" download="{filename}">{text}</a>'

return href

def pdf\_reader(file):

resource\_manager = PDFResourceManager()

fake\_file\_handle = io.StringIO()

converter = TextConverter(resource\_manager, fake\_file\_handle, laparams=LAParams())

page\_interpreter = PDFPageInterpreter(resource\_manager, converter)

with open(file, 'rb') as fh:

for page in PDFPage.get\_pages(fh,

caching=True,

check\_extractable=True):

page\_interpreter.process\_page(page)

print(page)

text = fake\_file\_handle.getvalue()

# close open handles

converter.close()

fake\_file\_handle.close()

return text

def show\_pdf(file\_path):

with open(file\_path, "rb") as f:

base64\_pdf = base64.b64encode(f.read()).decode('utf-8')

# pdf\_display = f'<embed src="data:application/pdf;base64,{base64\_pdf}" width="700" height="1000" type="application/pdf">'

pdf\_display = F'<iframe src="data:application/pdf;base64,{base64\_pdf}" width="700" height="1000" type="application/pdf"></iframe>'

st.markdown(pdf\_display, unsafe\_allow\_html=True)

def course\_recommender(course\_list):

st.subheader("\*\*Courses & Certificates🎓 Recommendations\*\*")

c = 0

rec\_course = []

no\_of\_reco = st.slider('Choose Number of Course Recommendations:', 1, 10, 4)

random.shuffle(course\_list)

for c\_name, c\_link in course\_list:

c += 1

st.markdown(f"({c}) [{c\_name}]({c\_link})")

rec\_course.append(c\_name)

if c == no\_of\_reco:

break

return rec\_course

connection = pymysql.connect(host='localhost', user='root', password='')

cursor = connection.cursor()

def insert\_data(name, email, res\_score, timestamp, no\_of\_pages, reco\_field, cand\_level, skills, recommended\_skills,

courses):

DB\_table\_name = 'user\_data'

insert\_sql = "insert into " + DB\_table\_name + """

values (0,%s,%s,%s,%s,%s,%s,%s,%s,%s,%s)"""

rec\_values = (

name, email, str(res\_score), timestamp, str(no\_of\_pages), reco\_field, cand\_level, skills, recommended\_skills,

courses)

cursor.execute(insert\_sql, rec\_values)

connection.commit()

st.set\_page\_config(

page\_title="Smart Resume Analyzer",

page\_icon='./Logo/SRA\_Logo.ico',

)

def run():

st.title("Know Your Resume Rating")

st.sidebar.markdown("# Choose User")

activities = ["Normal User", "Admin"]

choice = st.sidebar.selectbox("Choose among the given options:", activities)

# Create the DB

db\_sql = """CREATE DATABASE IF NOT EXISTS SRA;"""

cursor.execute(db\_sql)

connection.select\_db("sra")

# Create table

DB\_table\_name = 'user\_data'

table\_sql = "CREATE TABLE IF NOT EXISTS " + DB\_table\_name + """

(ID INT NOT NULL AUTO\_INCREMENT,

Name varchar(100) NOT NULL,

Email\_ID VARCHAR(50) NOT NULL,

resume\_score VARCHAR(8) NOT NULL,

Timestamp VARCHAR(50) NOT NULL,

Page\_no VARCHAR(5) NOT NULL,

Predicted\_Field VARCHAR(25) NOT NULL,

User\_level VARCHAR(30) NOT NULL,

Actual\_skills VARCHAR(300) NOT NULL,

Recommended\_skills VARCHAR(300) NOT NULL,

Recommended\_courses VARCHAR(600) NOT NULL,

PRIMARY KEY (ID));

"""

cursor.execute(table\_sql)

if choice == 'Normal User':

pdf\_file = st.file\_uploader("Choose your Resume", type=["pdf"])

if pdf\_file is not None:

save\_image\_path = './Uploaded\_Resumes/' + pdf\_file.name

with open(save\_image\_path, "wb") as f:

f.write(pdf\_file.getbuffer())

show\_pdf(save\_image\_path)

resume\_data = ResumeParser(save\_image\_path).get\_extracted\_data()

if resume\_data:

resume\_text = pdf\_reader(save\_image\_path)

st.header("\*\*Resume Analysis\*\*")

st.success("Hello " + resume\_data['name'])

st.subheader("\*\*Your Basic info\*\*")

try:

st.text('Name: ' + resume\_data['name'])

st.text('Email: ' + resume\_data['email'])

st.text('Contact: ' + resume\_data['mobile\_number'])

st.text('Resume pages: ' + str(resume\_data['no\_of\_pages']))

except:

pass

cand\_level = ''

if resume\_data['no\_of\_pages'] == 1:

cand\_level = "Fresher"

st.markdown('''<h4 style='text-align: left; color: #d73b5c;'>You are looking Fresher.</h4>''',

unsafe\_allow\_html=True)

elif resume\_data['no\_of\_pages'] == 2:

cand\_level = "Intermediate"

st.markdown('''<h4 style='text-align: left; color: #1ed760;'>You are at intermediate level!</h4>''',

unsafe\_allow\_html=True)

elif resume\_data['no\_of\_pages'] >= 3:

cand\_level = "Experienced"

st.markdown('''<h4 style='text-align: left; color: #fba171;'>You are at experience level!''',

unsafe\_allow\_html=True)

st.subheader("\*\*Skills Recommendation💡\*\*")

keywords = st\_tags(label='### Skills that you have',

text='See our skills recommendation',

value=resume\_data['skills'], key='1')

ds\_keyword = ['tensorflow', 'keras', 'pytorch', 'machine learning', 'deep Learning', 'flask',

'streamlit']

web\_keyword = ['react', 'django', 'node jS', 'react js', 'php', 'laravel', 'magento', 'wordpress',

'javascript', 'angular js', 'c#', 'flask']

android\_keyword = ['android', 'android development', 'flutter', 'kotlin', 'xml', 'kivy']

ios\_keyword = ['ios', 'ios development', 'swift', 'cocoa', 'cocoa touch', 'xcode']

uiux\_keyword = ['ux', 'adobe xd', 'figma', 'zeplin', 'balsamiq', 'ui', 'prototyping', 'wireframes',

'storyframes', 'adobe photoshop', 'photoshop', 'editing', 'adobe illustrator',

'illustrator', 'adobe after effects', 'after effects', 'adobe premier pro',

'premier pro', 'adobe indesign', 'indesign', 'wireframe', 'solid', 'grasp',

'user research', 'user experience']

recommended\_skills = []

reco\_field = ''

rec\_course = ''

## Courses recommendation

for i in resume\_data['skills']:

## Data science recommendation

if i.lower() in ds\_keyword:

print(i.lower())

reco\_field = 'Data Science'

st.success("\*\* Our analysis says you are looking for Data Science Jobs.\*\*")

recommended\_skills = ['Data Visualization', 'Predictive Analysis', 'Statistical Modeling',

'Data Mining', 'Clustering & Classification', 'Data Analytics',

'Quantitative Analysis', 'Web Scraping', 'ML Algorithms', 'Keras',

'Pytorch', 'Probability', 'Scikit-learn', 'Tensorflow', "Flask",

'Streamlit']

recommended\_keywords = st\_tags(label='### Recommended skills for you.',

text='Recommended skills generated from System',

value=recommended\_skills, key='2')

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>Adding this skills to resume will boost🚀 the chances of getting a Job💼</h4>''',

unsafe\_allow\_html=True)

rec\_course = course\_recommender(ds\_course)

break

## Web development recommendation

elif i.lower() in web\_keyword:

print(i.lower())

reco\_field = 'Web Development'

st.success("\*\* Our analysis says you are looking for Web Development Jobs \*\*")

recommended\_skills = ['React', 'Django', 'Node JS', 'React JS', 'php', 'laravel', 'Magento',

'wordpress', 'Javascript', 'Angular JS', 'c#', 'Flask', 'SDK']

recommended\_keywords = st\_tags(label='### Recommended skills for you.',

text='Recommended skills generated from System',

value=recommended\_skills, key='3')

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>Adding this skills to resume will boost🚀 the chances of getting a Job💼</h4>''',

unsafe\_allow\_html=True)

rec\_course = course\_recommender(web\_course)

break

## Android App Development

elif i.lower() in android\_keyword:

print(i.lower())

reco\_field = 'Android Development'

st.success("\*\* Our analysis says you are looking for Android App Development Jobs \*\*")

recommended\_skills = ['Android', 'Android development', 'Flutter', 'Kotlin', 'XML', 'Java',

'Kivy', 'GIT', 'SDK', 'SQLite']

recommended\_keywords = st\_tags(label='### Recommended skills for you.',

text='Recommended skills generated from System',

value=recommended\_skills, key='4')

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>Adding this skills to resume will boost🚀 the chances of getting a Job💼</h4>''',

unsafe\_allow\_html=True)

rec\_course = course\_recommender(android\_course)

break

## IOS App Development

elif i.lower() in ios\_keyword:

print(i.lower())

reco\_field = 'IOS Development'

st.success("\*\* Our analysis says you are looking for IOS App Development Jobs \*\*")

recommended\_skills = ['IOS', 'IOS Development', 'Swift', 'Cocoa', 'Cocoa Touch', 'Xcode',

'Objective-C', 'SQLite', 'Plist', 'StoreKit', "UI-Kit", 'AV Foundation',

'Auto-Layout']

recommended\_keywords = st\_tags(label='### Recommended skills for you.',

text='Recommended skills generated from System',

value=recommended\_skills, key='5')

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>Adding this skills to resume will boost🚀 the chances of getting a Job💼</h4>''',

unsafe\_allow\_html=True)

rec\_course = course\_recommender(ios\_course)

break

## Ui-UX Recommendation

elif i.lower() in uiux\_keyword:

print(i.lower())

reco\_field = 'UI-UX Development'

st.success("\*\* Our analysis says you are looking for UI-UX Development Jobs \*\*")

recommended\_skills = ['UI', 'User Experience', 'Adobe XD', 'Figma', 'Zeplin', 'Balsamiq',

'Prototyping', 'Wireframes', 'Storyframes', 'Adobe Photoshop', 'Editing',

'Illustrator', 'After Effects', 'Premier Pro', 'Indesign', 'Wireframe',

'Solid', 'Grasp', 'User Research']

recommended\_keywords = st\_tags(label='### Recommended skills for you.',

text='Recommended skills generated from System',

value=recommended\_skills, key='6')

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>Adding this skills to resume will boost🚀 the chances of getting a Job💼</h4>''',

unsafe\_allow\_html=True)

rec\_course = course\_recommender(uiux\_course)

break

#

## Insert into table

ts = time.time()

cur\_date = datetime.datetime.fromtimestamp(ts).strftime('%Y-%m-%d')

cur\_time = datetime.datetime.fromtimestamp(ts).strftime('%H:%M:%S')

timestamp = str(cur\_date + '\_' + cur\_time)

### Resume writing recommendation

st.subheader("\*\*Resume Tips & Ideas💡\*\*")

resume\_score = 0

if 'Objective' in resume\_text:

resume\_score = resume\_score + 20

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>[+] Awesome! You have added Objective</h4>''',

unsafe\_allow\_html=True)

else:

st.markdown(

'''<h4 style='text-align: left; color: #fabc10;'>[-] According to our recommendation please add your career objective, it will give your career intension to the Recruiters.</h4>''',

unsafe\_allow\_html=True)

if 'Declaration' in resume\_text:

resume\_score = resume\_score + 20

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>[+] Awesome! You have added Delcaration✍/h4>''',

unsafe\_allow\_html=True)

else:

st.markdown(

'''<h4 style='text-align: left; color: #fabc10;'>[-] According to our recommendation please add Declaration✍. It will give the assurance that everything written on your resume is true and fully acknowledged by you</h4>''',

unsafe\_allow\_html=True)

if 'Hobbies' or 'Interests' in resume\_text:

resume\_score = resume\_score + 20

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>[+] Awesome! You have added your Hobbies⚽</h4>''',

unsafe\_allow\_html=True)

else:

st.markdown(

'''<h4 style='text-align: left; color: #fabc10;'>[-] According to our recommendation please add Hobbies⚽. It will show your persnality to the Recruiters and give the assurance that you are fit for this role or not.</h4>''',

unsafe\_allow\_html=True)

if 'Achievements' in resume\_text:

resume\_score = resume\_score + 20

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>[+] Awesome! You have added your Achievements🏅 </h4>''',

unsafe\_allow\_html=True)

else:

st.markdown(

'''<h4 style='text-align: left; color: #fabc10;'>[-] According to our recommendation please add Achievements🏅. It will show that you are capable for the required position.</h4>''',

unsafe\_allow\_html=True)

if 'Projects' in resume\_text:

resume\_score = resume\_score + 20

st.markdown(

'''<h4 style='text-align: left; color: #1ed760;'>[+] Awesome! You have added your Projects👨‍💻 </h4>''',

unsafe\_allow\_html=True)

else:

st.markdown(

'''<h4 style='text-align: left; color: #fabc10;'>[-] According to our recommendation please add Projects👨‍💻. It will show that you have done work related the required position or not.</h4>''',

unsafe\_allow\_html=True)

st.subheader("\*\*Resume Score📝\*\*")

st.markdown(

"""

<style>

.stProgress > div > div > div > div {

background-color: #d73b5c;

}

</style>""",

unsafe\_allow\_html=True,

)

my\_bar = st.progress(0)

score = 0

for percent\_complete in range(resume\_score):

score += 1

time.sleep(0.1)

my\_bar.progress(percent\_complete + 1)

st.success('\*\* Your Resume Writing Score: ' + str(score) + '\*\*')

st.warning(

"\*\* Note: This score is calculated based on the content that you have added in your Resume. \*\*")

st.balloons()

insert\_data(resume\_data['name'], resume\_data['email'], str(resume\_score), timestamp,

str(resume\_data['no\_of\_pages']), reco\_field, cand\_level, str(resume\_data['skills']),

str(recommended\_skills), str(rec\_course))

connection.commit()

else:

st.error('Something went wrong..')

else:

## Admin Side

st.success('Welcome to Admin Side')

# st.sidebar.subheader('\*\*ID / Password Required!\*\*')

ad\_user = st.text\_input("Username")

ad\_password = st.text\_input("Password", type='password')

if st.button('Login'):

if ad\_user == 'admin' and ad\_password == 'admin123':

st.success("Welcome Admin")

# Display Data

cursor.execute('''SELECT\*FROM user\_data''')

data = cursor.fetchall()

st.header("\*\*User's👨‍💻 Data\*\*")

df = pd.DataFrame(data, columns=['ID', 'Name', 'Email', 'Resume Score', 'Timestamp', 'Total Page',

'Predicted Field', 'User Level', 'Actual Skills', 'Recommended Skills',

'Recommended Course'])

st.dataframe(df)

st.markdown(get\_table\_download\_link(df, 'User\_Data.csv', 'Download Report'), unsafe\_allow\_html=True)

## Admin Side Data

query = 'select \* from user\_data;'

plot\_data = pd.read\_sql(query, connection)

else:

st.error("Wrong ID & Password Provided")

run()

Courses.py

ds\_course = [['Machine Learning Crash Course by Google [Free]', 'https://developers.google.com/machine-learning/crash-course'],

['Machine Learning A-Z by Udemy','https://www.udemy.com/course/machinelearning/'],

['Machine Learning by Andrew NG','https://www.coursera.org/learn/machine-learning'],

['Data Scientist Master Program of Simplilearn (IBM)','https://www.simplilearn.com/big-data-and-analytics/senior-data-scientist-masters-program-training'],

['Data Science Foundations: Fundamentals by LinkedIn','https://www.linkedin.com/learning/data-science-foundations-fundamentals-5'],

['Data Scientist with Python','https://www.datacamp.com/tracks/data-scientist-with-python'],

['Programming for Data Science with Python','https://www.udacity.com/course/programming-for-data-science-nanodegree--nd104'],

['Programming for Data Science with R','https://www.udacity.com/course/programming-for-data-science-nanodegree-with-R--nd118'],

['Introduction to Data Science','https://www.udacity.com/course/introduction-to-data-science--cd0017'],

['Intro to Machine Learning with TensorFlow','https://www.udacity.com/course/intro-to-machine-learning-with-tensorflow-nanodegree--nd230']]

web\_course = [['Django Crash course [Free]','https://youtu.be/e1IyzVyrLSU'],

['Python and Django Full Stack Web Developer Bootcamp','https://www.udemy.com/course/python-and-django-full-stack-web-developer-bootcamp'],

['React Crash Course [Free]','https://youtu.be/Dorf8i6lCuk'],

['ReactJS Project Development Training','https://www.dotnettricks.com/training/masters-program/reactjs-certification-training'],

['Full Stack Web Developer - MEAN Stack','https://www.simplilearn.com/full-stack-web-developer-mean-stack-certification-training'],

['Node.js and Express.js [Free]','https://youtu.be/Oe421EPjeBE'],

['Flask: Develop Web Applications in Python','https://www.educative.io/courses/flask-develop-web-applications-in-python'],

['Full Stack Web Developer by Udacity','https://www.udacity.com/course/full-stack-web-developer-nanodegree--nd0044'],

['Front End Web Developer by Udacity','https://www.udacity.com/course/front-end-web-developer-nanodegree--nd0011'],

['Become a React Developer by Udacity','https://www.udacity.com/course/react-nanodegree--nd019']]

android\_course = [['Android Development for Beginners [Free]','https://youtu.be/fis26HvvDII'],

['Android App Development Specialization','https://www.coursera.org/specializations/android-app-development'],

['Associate Android Developer Certification','https://grow.google/androiddev/#?modal\_active=none'],

['Become an Android Kotlin Developer by Udacity','https://www.udacity.com/course/android-kotlin-developer-nanodegree--nd940'],

['Android Basics by Google','https://www.udacity.com/course/android-basics-nanodegree-by-google--nd803'],

['The Complete Android Developer Course','https://www.udemy.com/course/complete-android-n-developer-course/'],

['Building an Android App with Architecture Components','https://www.linkedin.com/learning/building-an-android-app-with-architecture-components'],

['Android App Development Masterclass using Kotlin','https://www.udemy.com/course/android-oreo-kotlin-app-masterclass/'],

['Flutter & Dart - The Complete Flutter App Development Course','https://www.udemy.com/course/flutter-dart-the-complete-flutter-app-development-course/'],

['Flutter App Development Course [Free]','https://youtu.be/rZLR5olMR64']]

ios\_course = [['IOS App Development by LinkedIn','https://www.linkedin.com/learning/subscription/topics/ios'],

['iOS & Swift - The Complete iOS App Development Bootcamp','https://www.udemy.com/course/ios-13-app-development-bootcamp/'],

['Become an iOS Developer','https://www.udacity.com/course/ios-developer-nanodegree--nd003'],

['iOS App Development with Swift Specialization','https://www.coursera.org/specializations/app-development'],

['Mobile App Development with Swift','https://www.edx.org/professional-certificate/curtinx-mobile-app-development-with-swift'],

['Swift Course by LinkedIn','https://www.linkedin.com/learning/subscription/topics/swift-2'],

['Objective-C Crash Course for Swift Developers','https://www.udemy.com/course/objectivec/'],

['Learn Swift by Codecademy','https://www.codecademy.com/learn/learn-swift'],

['Swift Tutorial - Full Course for Beginners [Free]','https://youtu.be/comQ1-x2a1Q'],

['Learn Swift Fast - [Free]','https://youtu.be/FcsY1YPBwzQ']]

uiux\_course = [['Google UX Design Professional Certificate','https://www.coursera.org/professional-certificates/google-ux-design'],

['UI / UX Design Specialization','https://www.coursera.org/specializations/ui-ux-design'],

['The Complete App Design Course - UX, UI and Design Thinking','https://www.udemy.com/course/the-complete-app-design-course-ux-and-ui-design/'],

['UX & Web Design Master Course: Strategy, Design, Development','https://www.udemy.com/course/ux-web-design-master-course-strategy-design-development/'],

['The Complete App Design Course - UX, UI and Design Thinking','https://www.udemy.com/course/the-complete-app-design-course-ux-and-ui-design/'],

['DESIGN RULES: Principles + Practices for Great UI Design','https://www.udemy.com/course/design-rules/'],

['Become a UX Designer by Udacity','https://www.udacity.com/course/ux-designer-nanodegree--nd578'],

['Adobe XD Tutorial: User Experience Design Course [Free]','https://youtu.be/68w2VwalD5w'],

['Adobe XD for Beginners [Free]','https://youtu.be/WEljsc2jorI'],

['Adobe XD in Simple Way','https://learnux.io/course/adobe-xd']]

**Process of deployment:**

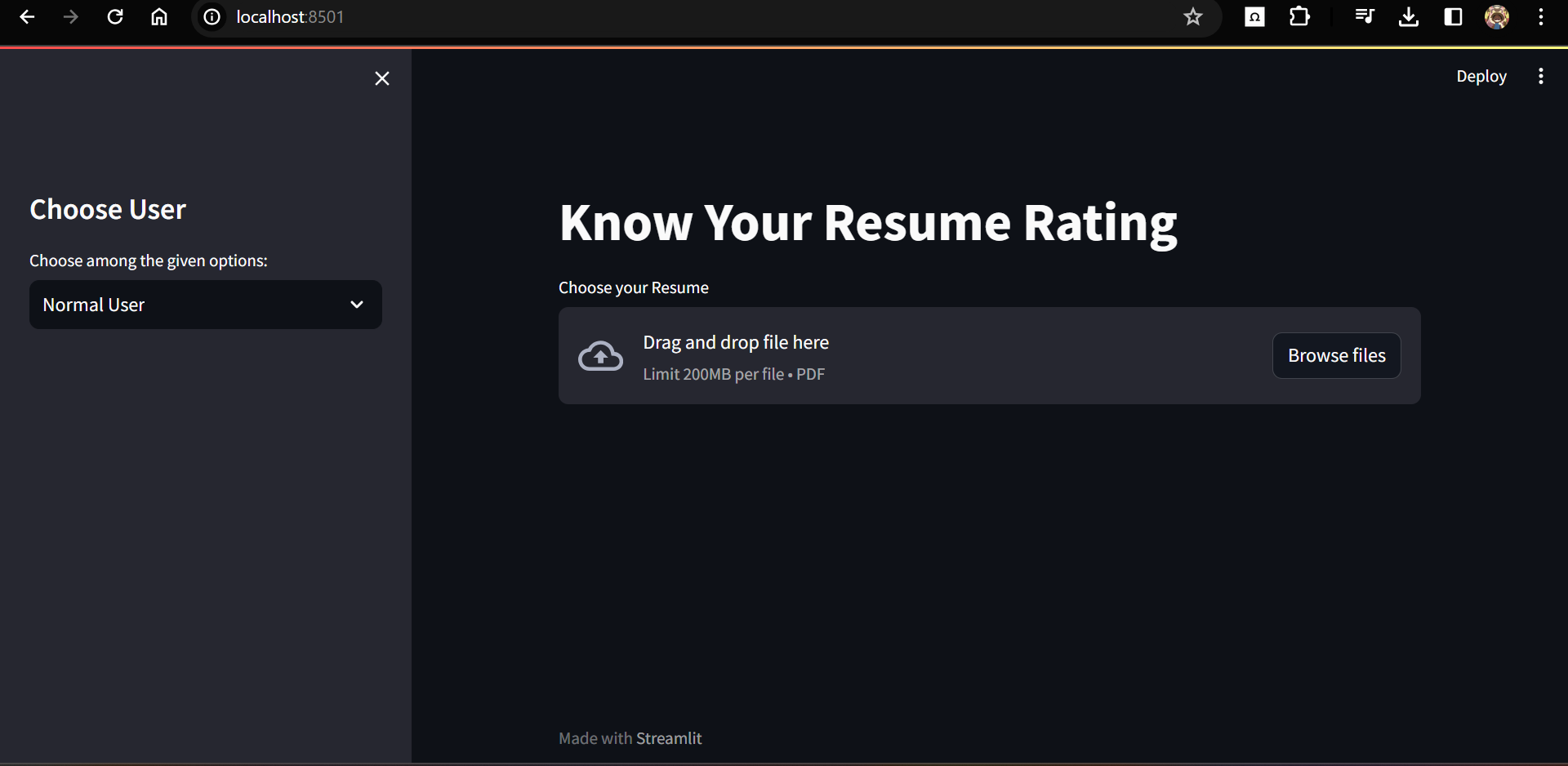
1.)pip install -r requirements

2.) python -m spacy download en\_core\_web\_sm

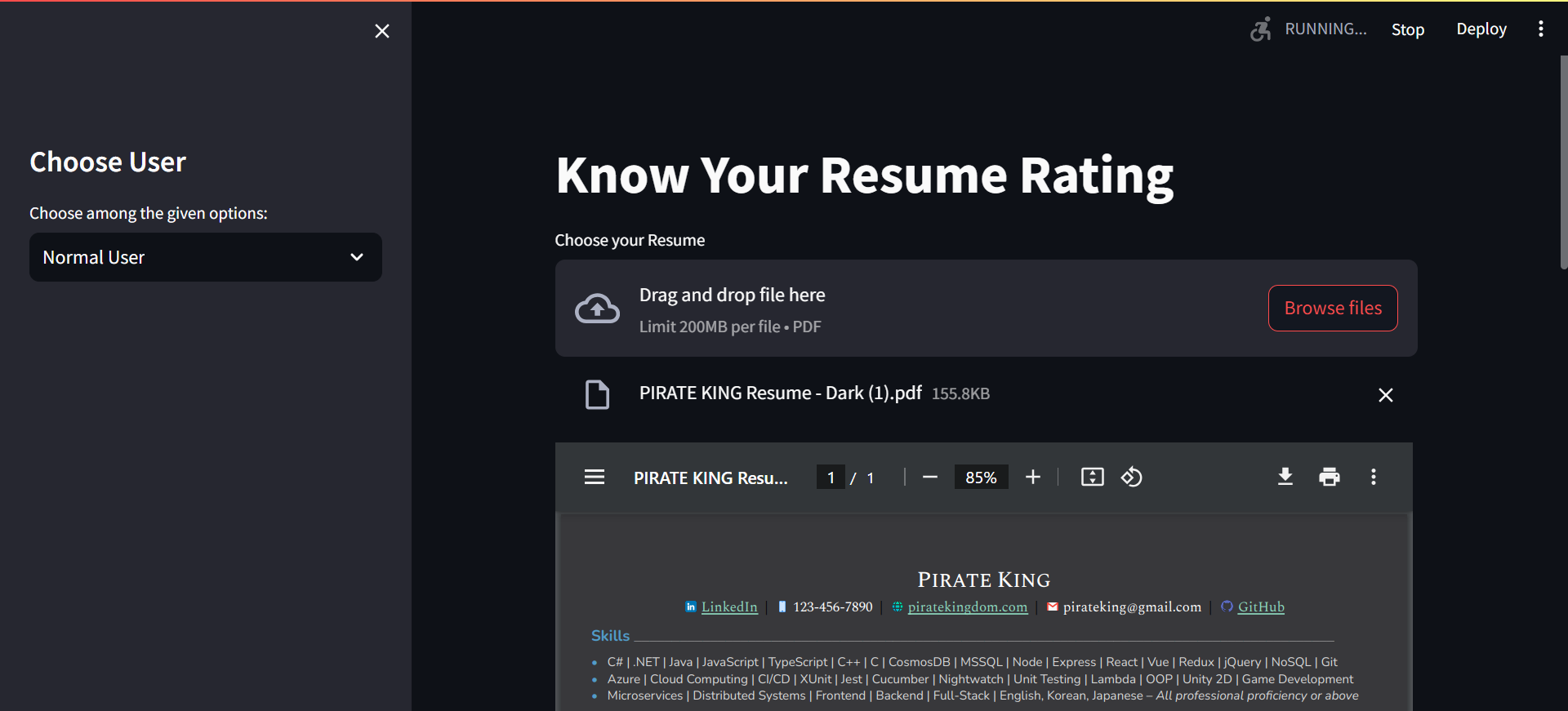
3.)streamlit run App.py

# 5.2 LIST OF OUPUTS

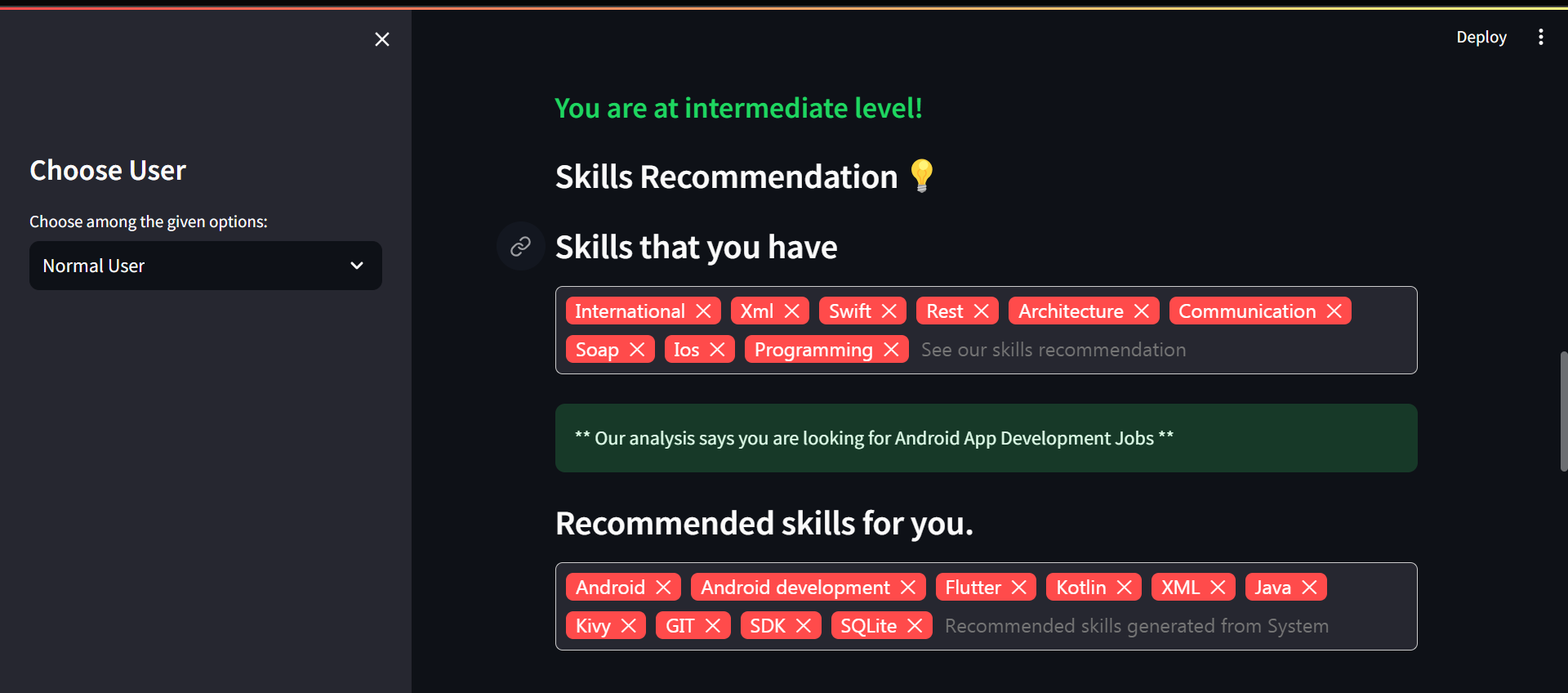
**8.1 USER SIDE OUTPUTS**



### FIGURE 8.1.1 Beginning page



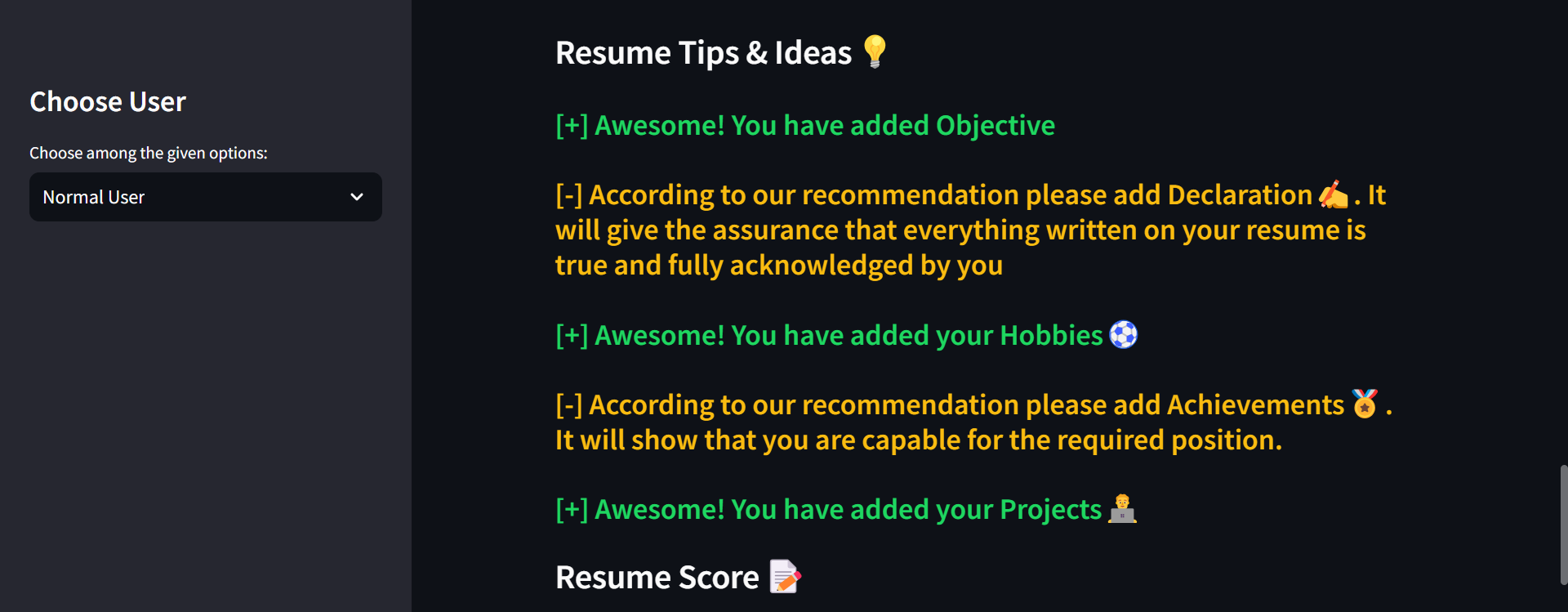
**FIGURE 8.1.2.After resume is uploaded**

****

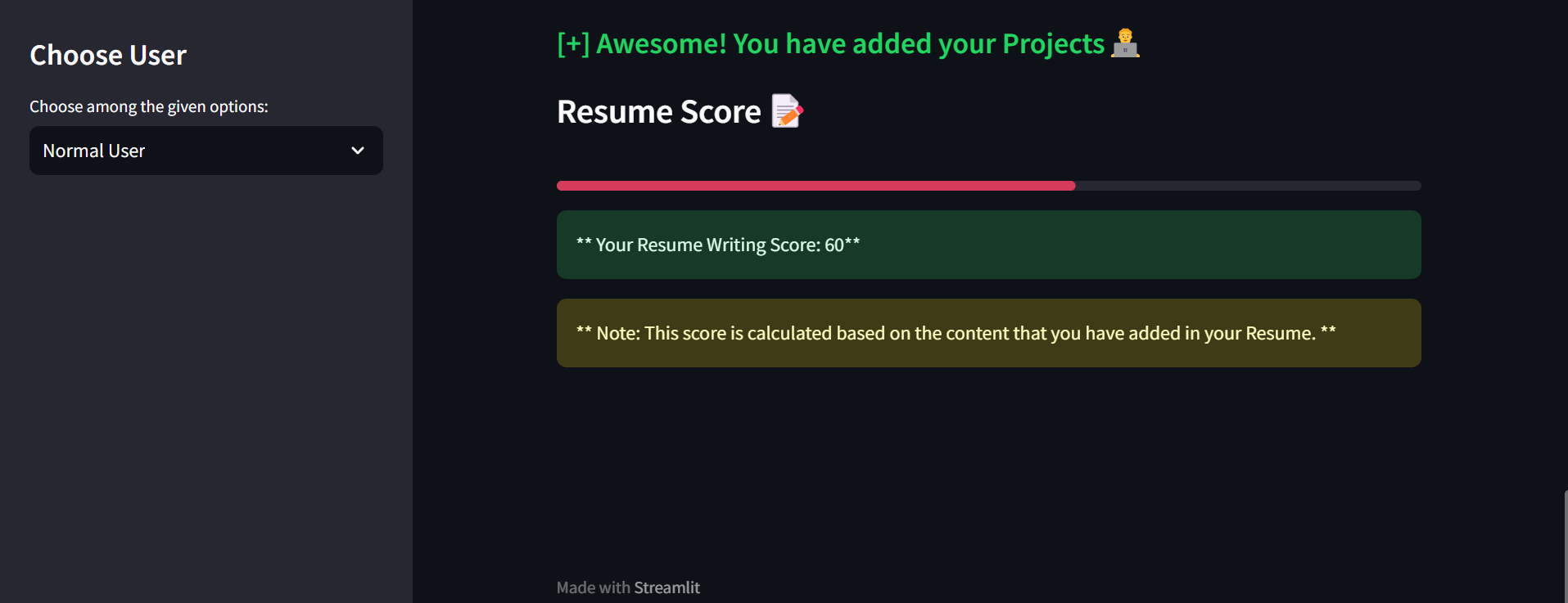
**FIGURE 8.1.3 Skill recommendation**

****

**FIGURE 8.1.4 Course recommended**

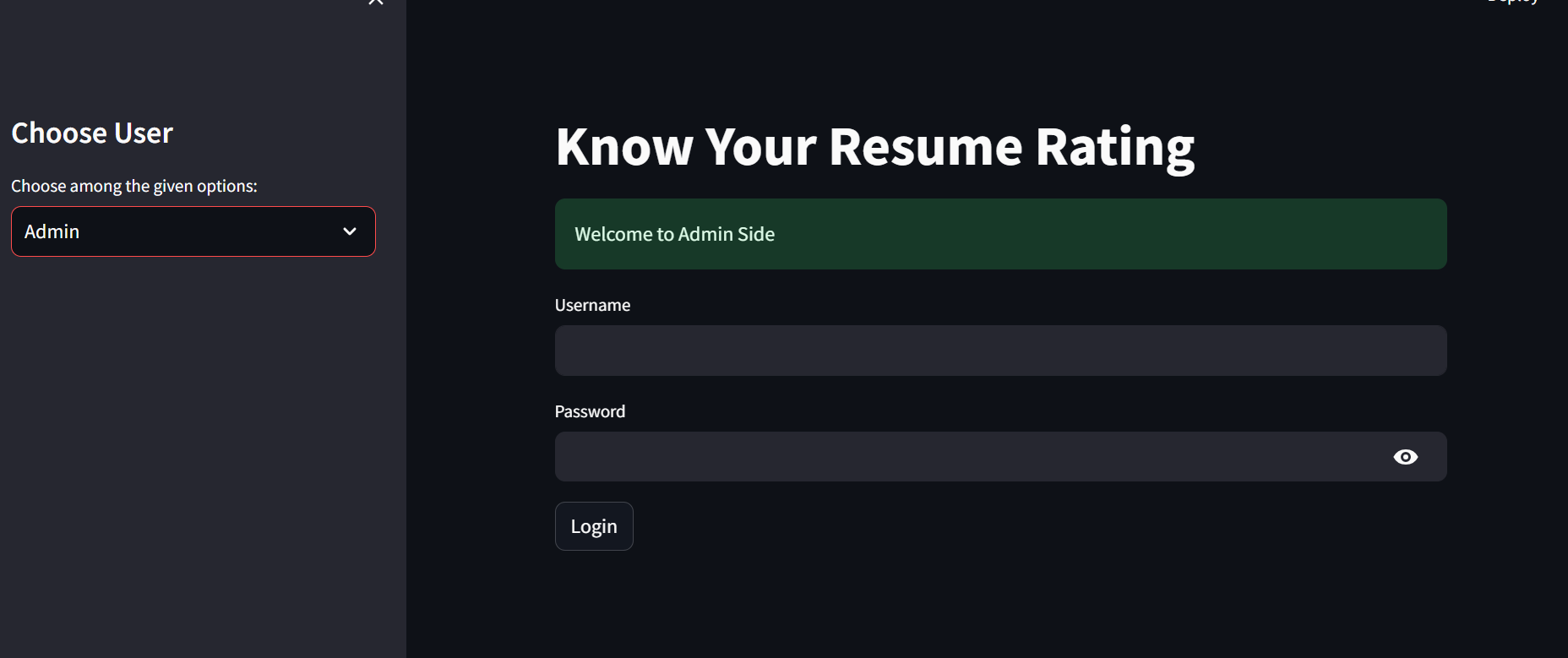
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**FIGURE 8.1.5 Resume writing tips**

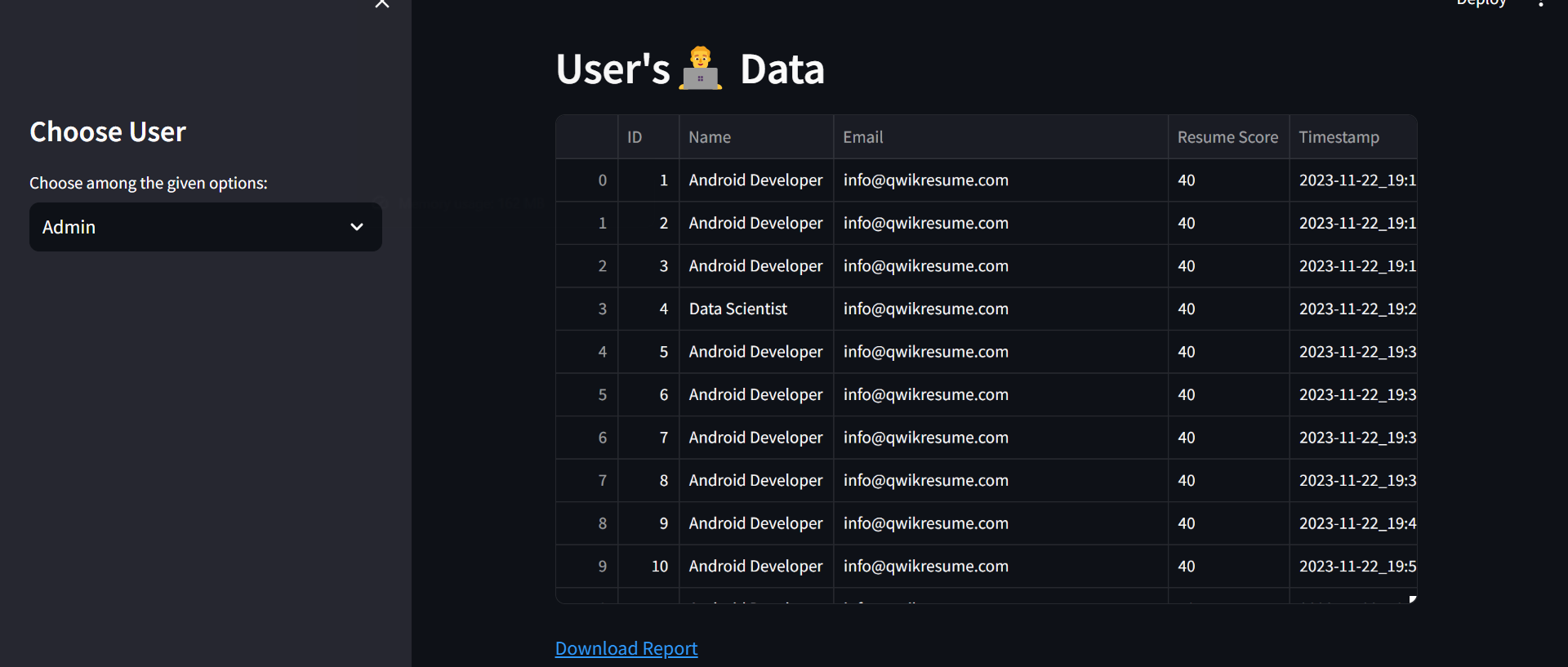
****

**FIGURE 8.1.6 Finally the resume score**

**8.2 ADMIN SIDE OUTPUTS**

****

**FIGURE 8.2.1 Admin side page**

****

**FIGURE 8.2.2 Report In admin**

# 6. CONCLUSION & FUTURE SCOPE

## CONCLUSION:

The "Know Your Resume Rating" project signifies a transformative platform designed to empower individuals in crafting compelling resumes, enhancing their prospects in a competitive job market. Throughout its development, this project aimed to bridge the gap between traditional resume-building practices and the dynamic expectations of modern recruiters, offering a comprehensive solution for resume evaluation and improvement.

This project's journey has been a testament to innovation, user-centricity, and technological advancement. The platform's core functionalities, from resume evaluation algorithms to personalized feedback generation, have been meticulously crafted to provide users with actionable insights and guidance for optimizing their resumes.

In envisioning and developing this platform, inclusivity and accessibility have been pivotal. Efforts have been made to cater to users across diverse career stages, industries, and linguistic backgrounds. The incorporation of educational resources and an intuitive user interface aimed at delivering a seamless and enriching user experience underscore this commitment to inclusivity.

Security and data privacy have remained paramount throughout the project's lifecycle. Rigorous measures have been implemented to safeguard user data, ensuring compliance with data protection regulations and fostering trust among users.

The project's future holds promise through envisioned enhancements, including advanced algorithmic capabilities, AI-powered recommendations, and deeper integrations with job platforms, poised to elevate the platform's efficacy further. Continual iterations, user-driven improvements, and educational outreach initiatives will reinforce the platform's evolution.

## FUTURE SCOPE:

The "Know Your Resume Rating" project, while already a robust platform, holds significant potential for further advancements and expansions. The future scope of the project encompasses several avenues for enhancement and growth, aiming to elevate user experience, accuracy, and the platform's impact on career development.

**1. Advanced Algorithmic Framework:**

Objective: Enhance the evaluation algorithms with advanced natural language processing (NLP) techniques and machine learning models for deeper semantic analysis and accuracy.

Benefit: Improved evaluation precision, catering to nuanced resume elements and context, ensuring more personalized feedback.

**2. AI-Powered Recommendation System:**

Objective: Integrate machine learning algorithms to offer more tailored and predictive recommendations for resume enhancements based on user behavior and trends.

Benefit: Customized suggestions aligned with specific job roles and industry requirements, enhancing the platform's usefulness.

**3. Expanded Educational Resources:**

Objective: Enrich the platform with an extensive repository of industry-specific guides, interactive modules, and diverse learning materials.

Benefit: Cater to a wider range of career paths and educational backgrounds, facilitating skill development and effective resume enhancement.

**4. Global Expansion and Multi-Lingual Support:**

Objective: Extend support for multiple languages and cater to users globally by ensuring localization and cultural adaptability.

Benefit: Enhance accessibility and inclusivity, allowing users from diverse linguistic and cultural backgrounds to benefit from the platform.

The future scope of "Know Your Resume Rating" envisions an evolution towards a more adaptive, inclusive, and impactful platform, committed to empowering individuals worldwide in their career endeavors. Continual enhancements and innovations will reinforce the platform's position as a comprehensive and indispensable tool for resume evaluation and enhancement.

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# 7. BIBLIOGRAPHY

## REFERENCES:

**Books:**

Resume Writing Books by Authors like Martin Yate, Louise Kursmark, etc.

Textbooks on Natural Language Processing (NLP), Machine Learning, and Data Science.

**Research Papers and Journals:**

Academic papers on resume analysis, NLP algorithms, and user experience in career-oriented platforms.

Studies on job market trends, recruiter preferences, and resume optimization.

**Online Articles and Websites:**

Articles from reputable sources discussing resume writing, job search strategies, and career development.

Websites providing insights into resume evaluation, industry-specific resume tips, and best practices.

**Educational Platforms and Courses:**

Platforms offering courses or educational resources on NLP, machine learning, and web development.

Online learning platforms providing resume writing and career development courses.

**API Documentation and Technical References:**

Documentation from libraries or APIs used for natural language processing (e.g., spaCy, NLTK) and web development frameworks (e.g., Flask, Django).

Technical references for database management systems, security protocols, and server-side technologies.