Introduction to
Robotic Process Automation

CAREER PATH PREDICTOR BOT

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Abstract

The Career Path Predictor is a data-driven system designed to help individuals identify optimal career paths based on their skills, qualifications, and interests. By using machine learning algorithms, the system provides personalized career recommendations tailored to each user's profile. It automates the process of career assessment, making it faster and more accurate than traditional methods. The tool aims to bridge the gap between individual capabilities and market opportunities. It is designed for use by students, professionals, and career counselors. The system enhances decision-making by offering data-driven insights. Ultimately, it empowers users to make informed career choices.

Need for the Proposed System

The proposed system helps people choose the right career based on their age, education, and skills. By entering details like the skills you have the system gives personalized job suggestions that match your abilities. This makes it easier to decide on a career without feeling lost in the many options out there. It saves time by quickly showing the best career options, helping you make confident decisions for your future.

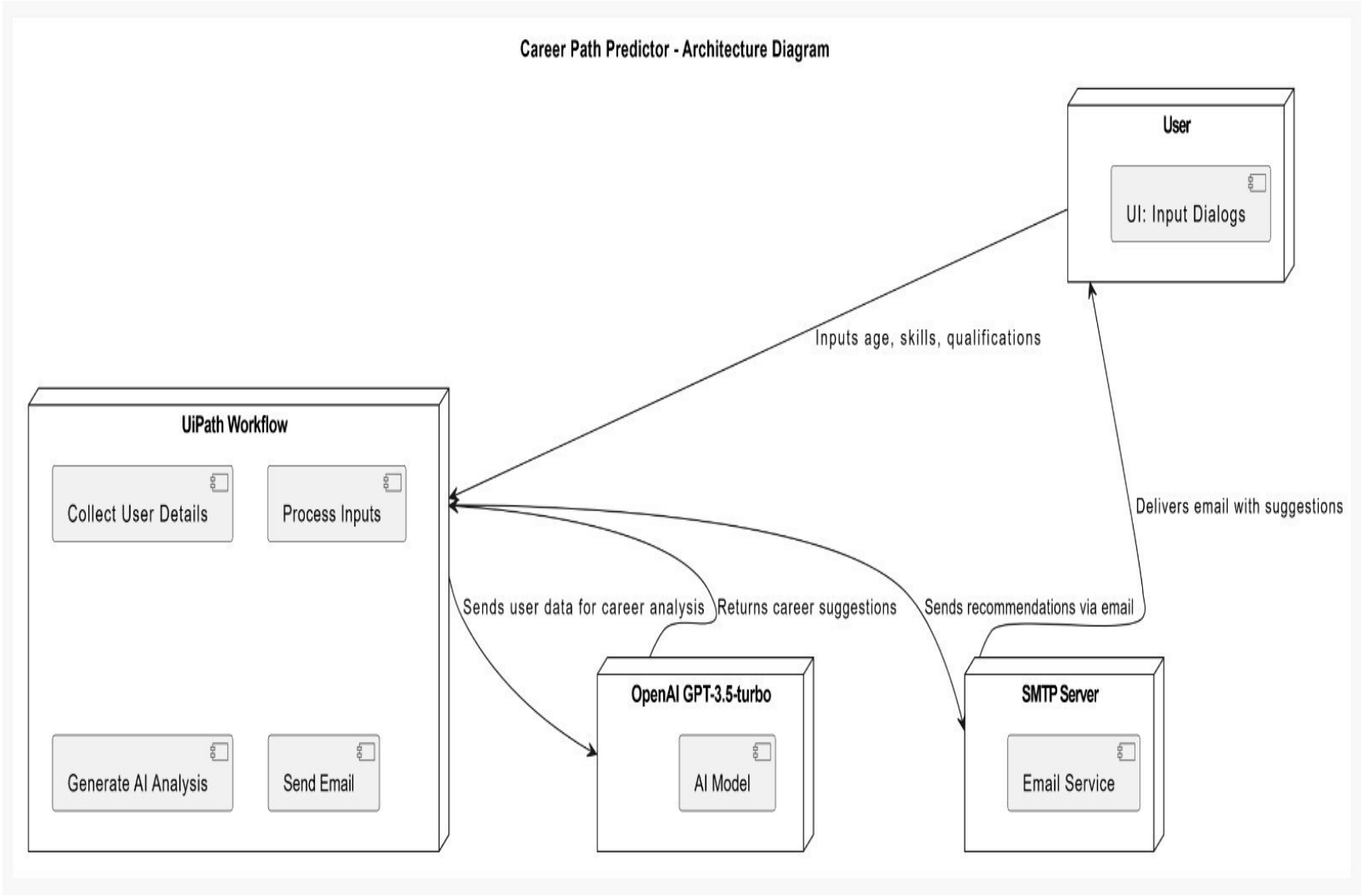
Advantages of the Proposed System

Personalized Recommendations: The system offers tailored career suggestions based on your unique skills, qualifications, and age, ensuring that the advice is relevant to you.Saves Time: Instead of spending hours researching careers, the system quickly provides the best options that fit your profile, making the decision process faster.Boosts Confidence: By giving clear career paths that match your skills, the system helps you feel more confident about your future and the choices you make

Main Objective

The main objective of the Career Path Predictor is to provide personalized career recommendations based on an individual's unique skills, interests, and qualifications. The system aims to leverage machine learning algorithms to analyze user data and match it with suitable career options. By automating the career assessment process, it reduces the time and effort required for decision-making. The tool seeks to enhance career planning by offering data-driven, accurate insights. It targets students, professionals, and career counselors to improve career guidance.

Architecture



System Requirements

- **Software Requirements:**

  UiPath Studio (Version 24.10.5 or above)

  Python (Version 3.7 or above)

  FFmpeg (for audio/video processing, if required)

  Operating System: Windows 10 or above

- **Hardware Requirements:**

  Processor: Intel i3 or above

  RAM: 4 GB minimum (8 GB recommended)

  Disk Space: 500 MB for tools and dependencies

  Internet Connection: Stable internet for cloud access

  API integration, and updates

Functional Description

- **Module 1: User Input and Data Collection**

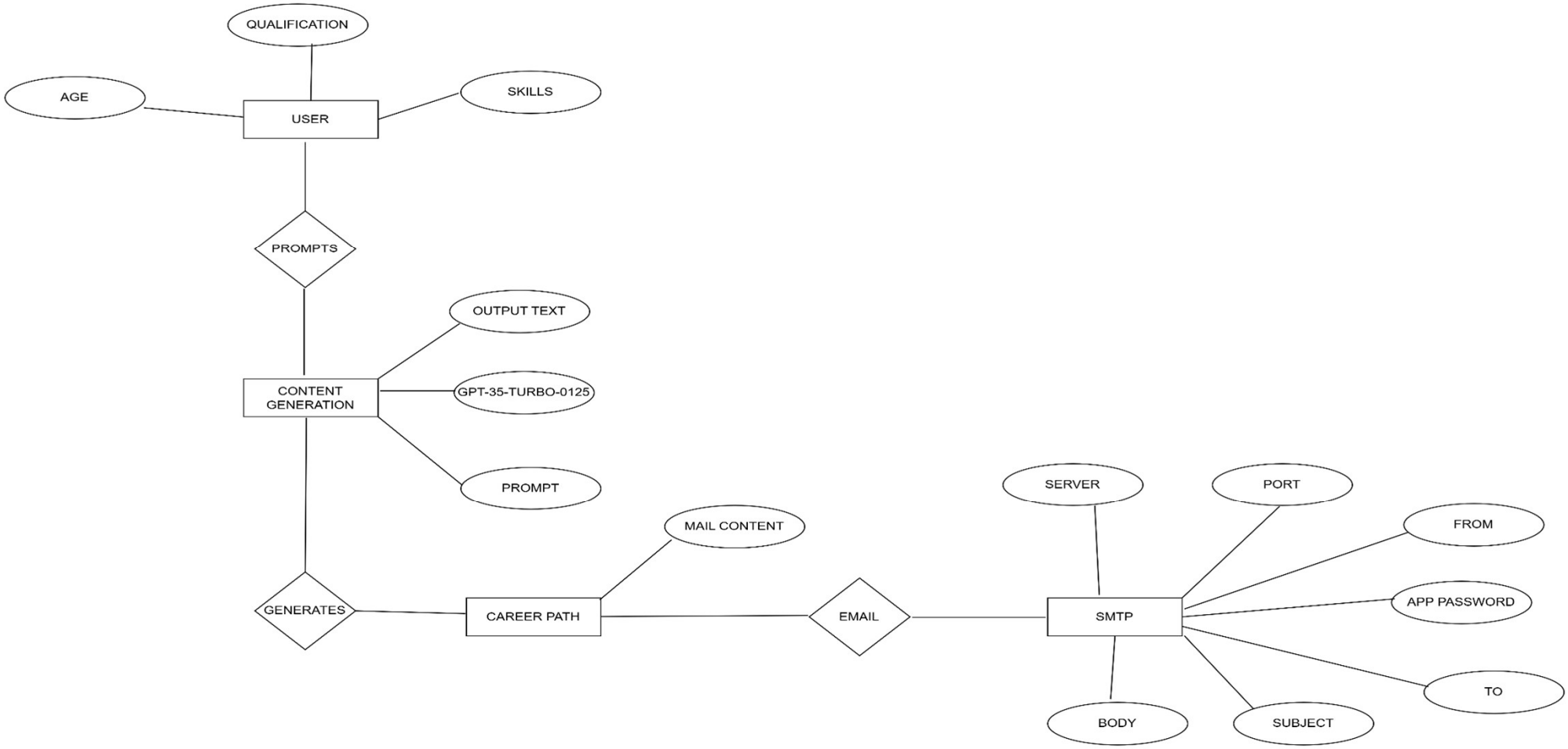
This module allows users to manually enter their personal details, such as skills, qualifications, work experience, and career interests, through a user-friendly input form. The collected data is processed and stored in the system for analysis. It serves as the foundation for generating personalized career path recommendations based on the user's profile

- **Module 2: Career Recommendation and Report Generation**

After collecting the user input, this module uses machine learning algorithms to analyze the data and match it with potential career paths. It generates a list of recommended careers tailored to the user's skills and preferences.

Table Design

- ERD



Process Design

MAIN PROCESS :

- **Collect User Info:** Gather age, education, and skills .
- **Analyze Data:** Match the user's details with suitable job roles.
- **Generate Recommendations:** Provide personalized career suggestions.
- **Display Results:** Show the best career options clearly.

Process Design

SUB PROCESS :

Collect User Info: Request data (age, education, skills)

Analyze Data: Match the input skills with relevant job roles.

Generate Recommendations: Generate career suggestions based on the matched skills.

Display Results: Present the recommended careers based on skills.

Process Design

Send Email Notification:

- Prepare a summary of the career recommendations.
- Send the career suggestions to the user via email.

Implementation

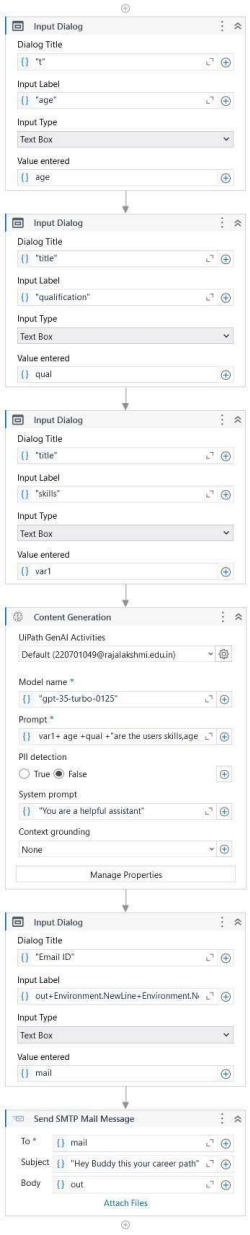
- Implementation of Module 1

Module 1 focuses on gathering user details, which can be done through manual input.

In this part of the module, the system allows the user to manually enter the following details.

- AGE
- QUALIFICATION
- SKILLS

Implementation Screenshots

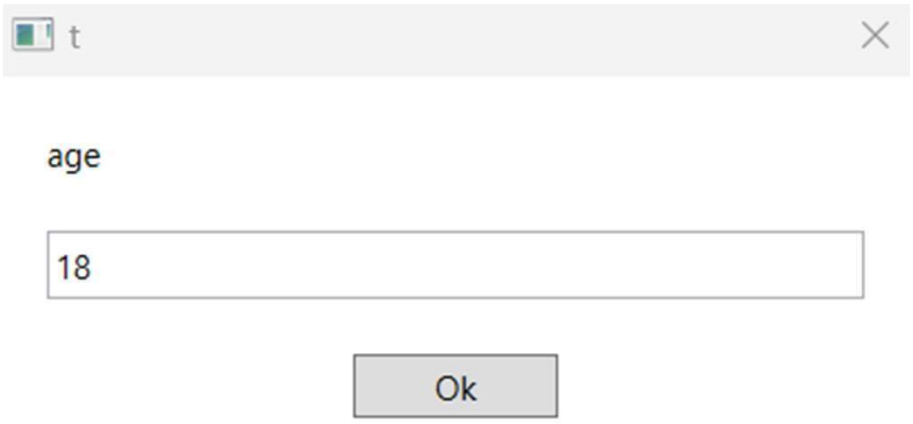


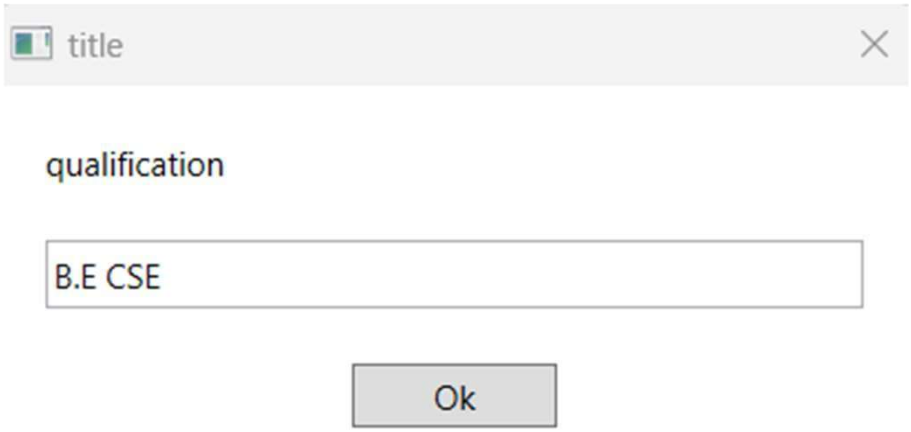
Testing

Integration Testing:
Objective: Test if different parts of the system work together.

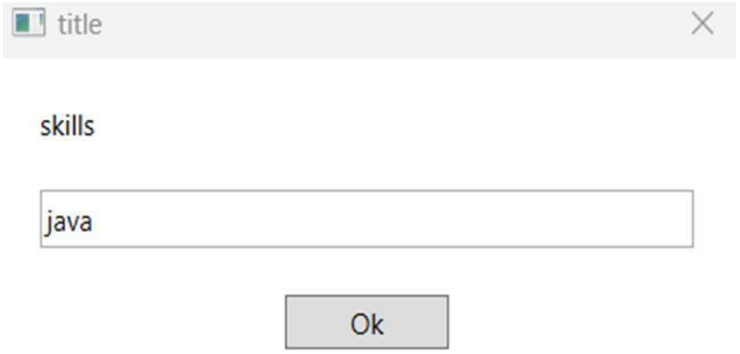
Test User Info and Recommendations: After the user enters their skills, make sure the system can give the right job suggestions.

Test Email Sending: Verify that the email is sent with the correct job recommendations to the user.





Output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java
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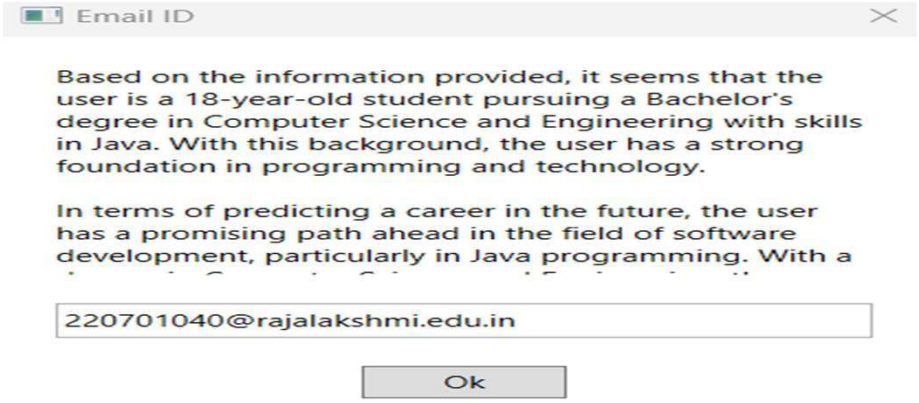
Email ID
Based on the information provided, it seems that the user is a 18-year-old student pursuing a Bachelor's degree in Computer Science and Engineering with skills in Java. With this background, the user has a strong foundation in programming and technology.
In terms of predicting a career in the future, the user has a promising path ahead in the field of software development, particularly in Java programming. With a
220701040@rajalakshmi.edu.in
Ok


Hey Buddy this your career path
220701049@rajalakshmi.edu.in
to 220701040
7:44 PM (0 minutes ago)
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In terms of predicting a career in the future, the user has a promising path ahead in the field of software development, particularly in Java programming. With a degree in Computer Science and Engineering, the user can explore various career opportunities such as software developer, web developer, mobile app developer, software engineer, or even pursue a career in data science or cybersecurity.
To enhance their career prospects, the user can consider gaining practical experience through internships, working on projects, participating in coding competitions, and continuously updating their skills and knowledge in Java and other relevant technologies.
Overall, with the right dedication, continuous learning, and practical experience, the user has the potential to have a successful career in the tech industry.

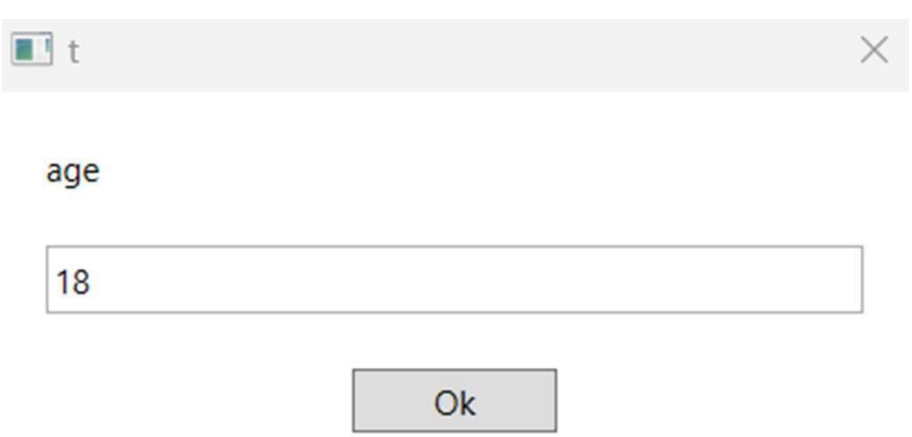
Testing

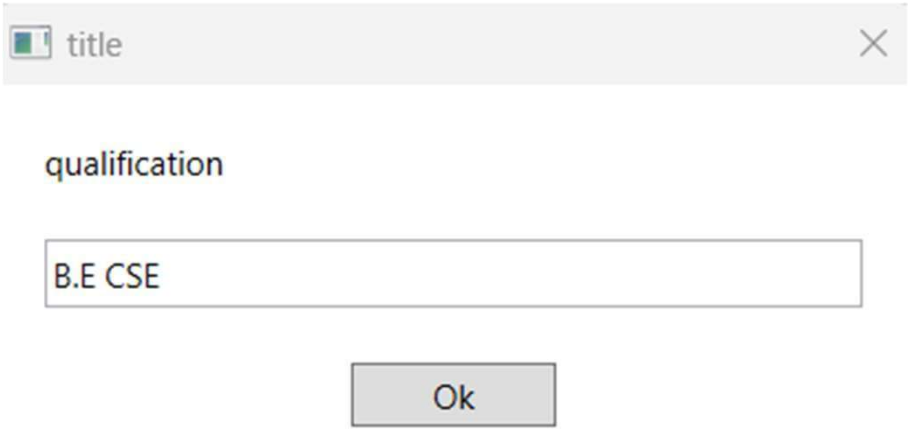
Unit Testing:

Objective: Test small parts of the system to make sure they work.

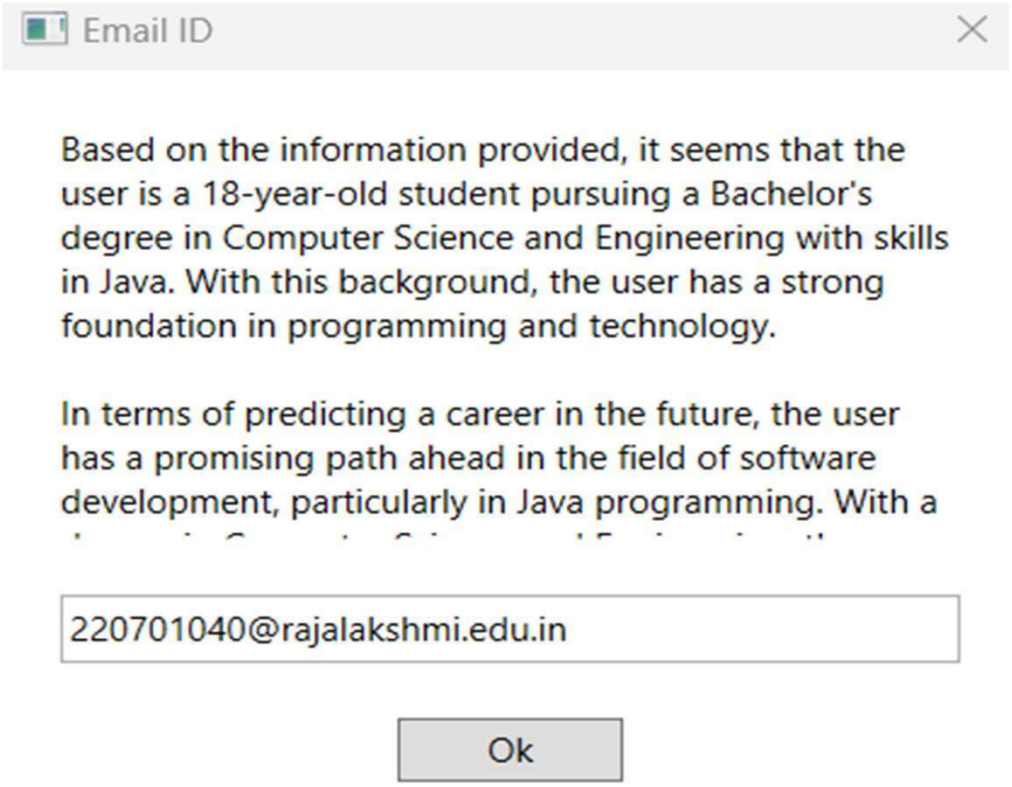
Test User Input: Check if the system correctly takes in and validates the skills entered by the user.

Test Skill Matching: Ensure the system matches the skills with the right job suggestions.





Output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Ok

Conclusions

The **Career Path Predictor** project successfully automates the process of collecting user details, analyzing them to generate personalized career recommendations, and delivering these recommendations via PDF reports.The system simplifies the traditionally time-consuming task of career counseling, offering both manual input and Excel file upload options for flexible data entry. By using machine learning algorithms to match user profiles with career paths, it provides tailored suggestions that align with each individual's skills, qualifications, and interests.

Future Enhancement

- **Cloud Storage Integration**

The system can be enhanced to automatically save the generated career recommendation PDFs to cloud storage platforms like **Google Drive**, **OneDrive**, or **Dropbox**.

- **Support for Multiple Languages**

To cater to a global audience, the system can be upgraded to support multiple languages for both PDF generation and email notifications.

References

[1] https://docs.uipath.com/ai-center/automation-cloud/latest/user-guide/out-of-the-box-packages

[2] https://platform.openai.com/docs

[3] https://docs.uipath.com/studio

Queries

Demonstration

Thank You