AI-Driven Student Career Counseling Platform

Rachita Agrawal[1], Durgesh Sawale[2], Shrawani Kondawar[3], Achal Gupta[4], Prof. J. S. Pawar[5]
Department of Information Technology, Sinhgad College of Engineering, Vadgaon, Pune

Abstract—**This paper presents an AI-driven career counseling platform that provides personal educational streams and courses for students based on academic achievements and MCQ-based fitness assessment. The system provides separate interfaces for students and administrators. Students (after 10 and 12 class) receive branch -like science, trade or art -based on scores and test reactions. Further competence is provided for class 12 students, including power -specific alternatives such as B.E., MBBS, BBA, B.com, BJMC and more. The final recommendation is with a courtyard list of relevant colleges in India. Administrators can update the MCQ database and college entry. The aim of the platform is to change the general career councils with computer -driven guidance that corresponds to the student's ability and interests.**

Index Terms—**Career Counseling, MCQ Analysis, Academic Stream Prediction, Student Profiling, Branch Recommendation, College Suggestion.**

I. INTRODUCTION

Choosing the right academic current after 10. And the right competence after 12 is important to shape the future of a student. However, due to lack of proper guidance, many students make their decisions without thinking that it may not listen to their skills and interests. The project introduces an AI-integrated career advisory forum designed to help students create better educational alternatives. The platform guides students in 10 and 12 classes using academic markings and power-specific MCQ assessments. Based on the analysis of the student's performance, it recommends the appropriate curriculum such as science, trade, or art and engineering science, MBBS, BBA, etc. after 10 after 12th place. A courtyard list of colleges throughout India that matches the recommended power or course is also provided. An administrator allows the control of interface MCQ questions and College data. The platform provides a reliable and interactive way of providing students with different academic backgrounds to provide personal career guidance.

II. RELATED WORK

In recent years, the integration of artificial intelligence into educational and career systems has been noticed. Methods of traditional career consultation, which are often limited to offline fitness tests and generic advice, have proven to be inadequate and inadequate to provide scalable solutions. It has encouraged researchers and developers to create intelligent platforms using AI, machine learning and behavioral analysis. The following tasks emphasize the main contribution at this site:

1) Sharma and Verma (2022) developed an online system that uses the machine learning algorithm to recommend the career path to students based on their educational score and profit tests. Their system included data preparation and power classifications using monitored models such as decision trees and random forests. Being effective in the prediction of the initial flow, it did not include recommendations at the specialization level or mapping of colleges, which made the decision less wide to support.

2) Bansal et al. (2021) presented an online power proposal platform aimed at students in class 10. This used MCQ-based assessment to determine cognitive adaptation to science, trade or art. Although the simplified decision -making process, the model dynamic's argument for competence in 12th grade or changed education material, and limited the practical use at educational levels.

3) Singh and Patel (2020) used psychological profiles using Big Five -Personality Symptoms to map personal behavior for groups of careers. The model gained promising accuracy and deep insight into user symptoms. However, the absence of integration with academic scores and test -based qualifications created an imbalance, making suggestions for more personality page than

educational-balanced.

4) Gupta and Mehta (2019) proposed a chatbot-driven career advisor using rule-based filtration and key order detections. This helped to address questions and common questions related to general careers, but it lacked an assessment engine to evaluate the students' educational and qualifying data. Therefore, recommendations were very common and did not fit individual profiles.

5) Saxena and RAO (2021) prepared a hybrid recommended model, where combined educational data and psychometric analysis to propose appropriate doctoral programs. Although powerful for higher education, the system focused on students and did not support school level decision -making, such as electricity choices after 10 or 12.

6) Kulkarni et al. (2023) emphasized the importance of integrating labor market analysis into career platforms. His recommendation engine optimizes dynamic job portals and the industry's tendency to require the labor market by using real -time data from APIs. Practical for individuals ready for jobs, it lacked facilities for school students to support basic educational decisions.

While each of these features contributes to valuable insights, most are either narrow scoped or lack of extensive functions. On the other hand, the platform combines our academic performance, MCQ-based fitness test and power-specific argument to recommend a round career well. Inclusion of a dynamic administration interface to update the MCQ database and the College list separates this platform by ensuring flexibility and continuous improvement. On the other hand, the platform combines our academic performance, MCQ-based fitness test and power-specific argument to recommend a round career well. Inclusion of a dynamic administration interface to update the MCQ database and the College list separates this platform by ensuring flexibility and continuous improvement.

III. LITERATURE SURVEY

Sr. No.	Publication Details	Seed Idea	Drawbacks
1	Tehseen Mehraj, Asifa Mehraj Baba, "Artificial Intelligence Based Career Guidance and Counselling Systems, Research gate, vol. 7, Issue 1, Year: 2019	Exploring the integration of AI technologies in career counseling, including the use of algorithms that align individuals with potential career paths based on their skills, interests, and personality traits.	A key concern is the lack of personalizatio n, as AI systems may depend on generalized data, potentially neglecting individual aspirations, personality traits, and subtle differences in career preferences.
2	Madhuri Ghuge, Torana kamble, Anushaka Mandrawliya, Anupam kumari, Vinay Raikwar, "Envisioning Tomorrow: AI Powered Career Counselling", Research gate, Year: 2024	Key concepts involve customized recommendati ons that offer advice based on an individual's skills and interests, along with real-time labor market insights that provide users with current information on job trends and skill requirement	It highlights potential biases in AI algorithms, which may result in unfair recommendati ons due to distorted data. Additionally, these systems might lack a deep understanding of individual circumstances , overlooking critical emotional and personal

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		factors that play a role in career decisions.	
3	Gurkirat Gori Sandhu, Himanshu Mittal, Kunal Prajapati, Sarabjit Kumar, "Artificial Intelligence Based Career Develop Web Counseling" Identification System Based on Convolutional Neural Network",2019 IEEE	It uses AI technologies like machine learning and natural language processing to provide personalized career guidance by analyzing user profiles, suggesting career paths, identifying skill gaps, recommending learning resources, and offering real-time labor market insights.deliver personalized career guidance. This includes analyzing user profiles to suggest appropriate career paths, identifying skill gaps, recommendi	If not managed well, AI may give biased or outdated advice and lack the empathy and nuanced understanding of a human counselor.roved.
		ng resources for skill development, and offering real-time insights into the labor market. Crops and weeds, with a focus on carrot seedlins	
4	Deepthi G. Pai, Radhika Kamath, and Mamatha Balachandra," Deep Learning Techniques for	The paper explores how deep learning can enhance weed detection Accuracy in	Deep learning models face limitations due to the scarcity of large annotated datasets and
	Based Career Develop Web Counseling"	career guidance by analyzing, suggesting career paths, identifying, recommending learning resources, and offering real-time labor market insights.	counselor.

IV. PROBLEM STATEMENT

Students are unable to identify the current academic or career path due to lack of individual career counseling. A system requires a system that uses educational data and qualifying tests to recommend appropriate streams or professional domains and connect students to appropriate institutions.

V. OBJECTIVES

- To design a career guidance system based on 10 and 12. Academic results.
- To recommend streams or professional courses using MCQ-based fitness tests.
- To provide the real -time list of colleges that offer recommended courses.

- To create an administrator module for dynamic control of MCQS and College entry.
- To ensure user -friendly GUI for both students and praise.
- To support informed and scalable decision - making for academic career.

VI. METHOD OF IMPLEMENTATION

AI-driven career advisory forum works through a structured process including both students and administrators:

- Students Input and Evaluation: Students log in and insert their academic brands. Given that they pass 10 or 12, they get specific MCQ -TEST -10. Students choose between science, business or art, while 12. Students take domain -specific MCQ based on their previous section.
- Result evaluation: The system calculates the score for each section and chooses the domain where the student performed best as a recommended power or course.
- Recommendation and college production: Depending on the results, the platform reflects the most appropriate education stream or the professional course and proposes the list of relevant colleges throughout India.
- Administrator Administration: Administrators can update MCQ -R to keep the user system relevant and optimistic and add or edit the College database.

VII. SYSTEM ARCHITECTURE
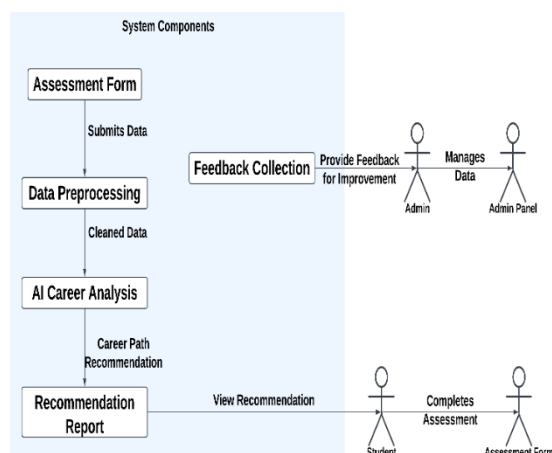
VIII. LIMITATION

The recommendations from the platform depend high on accurate academic data and honest answers, which can affect the reliability of the result. It currently leads to a lack of advanced psychometric analysis and real -time job market integration, which limits the depth of guidance. Regular updates for MCQ and College database are required to maintain relevance and accuracy.

IX. METHODOLOGY

The platform follows a step -B step modular approach. First, the students register and log the students. They enter their educational details, or if there are 10 or 12 square digits. Based on this, they are contained for an appropriate qualifying test: 10. Passport students choose between science, business or art-based MCQs, while 12. Passport students take domain-specific tests (e.g., Engineering Science, Medicine, Business). The system evaluates the score from the test and analyzes the best customized current or professional course with educational input to determine. When the evaluation is completed, the system generates individual recommendations and shows a curated list of colleges throughout India that provides the program in question. In Backend, administrators use a secure portal to manage and update the MCQ database and college entry, ensuring that the material is relevant. Designed to be comfortable and responsible, the user interface provides easy navigation for both students and administrators.
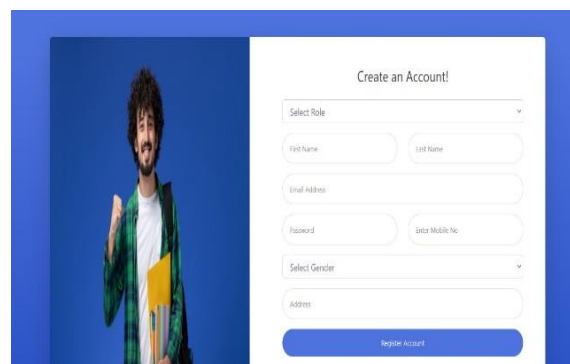
X. RESULTS

Figure No. 1: Student login Interface

Figure No. 2: MCQ Test

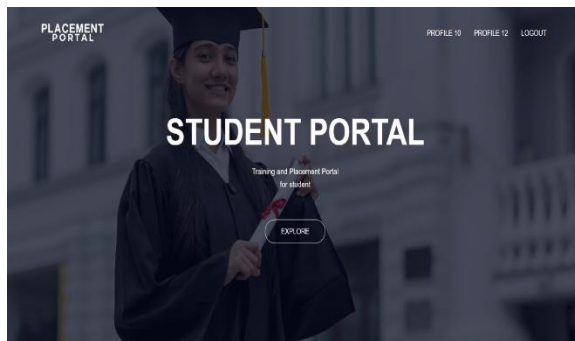Figure No. 3: Recommendation Result

Figure No. 4: Home Page

XI. CONCLUSION

The AI-powered career counseling platform effectively guides students to choose appropriate streams or professional courses based on educational results and profits. This simplifies the decision - making process after 10 and 12 by offering personal proposals. The inclusion of a college list is further improved by its practical value.

The platform is easy to use, adaptable and managed through an administrator panel to update questions and colleges. At present, focused on academic input has room for psychometric studies and future integration of labor market trends. Overall, it gives students the right to inform the confidence, informed career opportunities.

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