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# Review on Web Based IT Career Guidance System

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**Abstract:** *The future depends on what you are doing nowadays. Today, if a person does not have a clear idea of how and what correct path he should take to balance the present and the future, this is a cause for concern. Competition in the modern educational and professional world is at its peak. The importance of proper guidance for various colleges and work-related issues is another foundation for a better future. Nowadays, students are often faced with a dilemma when choosing a career. Students are confused about their career, which is the defining moment of their life. There are several factors that influence students' career choices, such as their personal skills, educational achievements and environment. We have a manual career guidance system guided by human advisors, but this system suffers from the following problems low number of human advisors, lack of advisors in many colleges, low number of advisors assisting students during their studies in colleges attend, and the position of college counsellors is so unpopular that students rarely meet with them for career advice. We were able to develop an online career guidance information system to solve problems related to a student's career. An online career guidance system was developed and implemented using data from various surveys and various research papers. The following languages were used: REACT, MONGODB, HTML, JavaScript, CSS, NODE JS, EXPRESS, BOOTSTRAP. OPEN AI APIS. The system was implemented and tested on 50 students and 76 of them found the career system very useful.*

**Keywords:** *Career, Information System, Education System, Colleges, Employment Opportunities, Colleges, Web Applications.*

## I. INTRODUCTION

Choosing a career has been difficult for everyone since ancient times. The web-based career guidance system is designed for students who have completed 10th and 12th grades and completed their studies. This system aims to eliminate the confusion in the minds of students. Our website is a real salvation for students and their parents. Students must first register on our website, then log in and select the area they are looking for career advice or their goals. After selecting the target, students are given recommendations for courses. Most of the students around the world are always confused about which career path to choose based on their skills. Due to a lack of information about the different options, they often end up in the wrong industries. Our computerized career guidance system is used to predict the industry suitable for a person based on his skills. We not only advise but also conduct various skill development courses.

### A. Existing System

The existing system includes direct counselling, or pen and paper guidance. This has many disadvantages such as less accuracy, unavailability of the counsellor and many more. There are also several websites which guide students only based on their academic grades without considering their abilities. The user interface of some websites is not user friendly, which makes it difficult for the students. There is no such website which takes information from students and provides them a detailed report and suitable career path. Along with an explanation of why you should pursue the recommended career path.

### B. Aim & Objective

In the modern age, choosing the right career option is a very tough assignment for students. The number of career opportunities has increased significantly over the last decade. Most students are not even aware of these career options. Many career advice platforms charge high fees that are not affordable for everyone. Therefore, there is a need for a free and user-friendly career guidance website. The main aim of our system is to provide students with the right guidance by recommending them a suitable career path. Along with this our system also gives detailed insights to the students about the popular career option. The students also get a complete list of colleges which will reduce their time and efforts.

- 1) Study the problems faced by the existing manual systems.
- 2) Developing a web-based career guidance system that improves the existing manual career guidance system for people.

- 3) To design a web application that will help young ones get a good understanding of themselves and recommend them on the right career path that best suits them.

### C. Web Based Career Guidance System

The existing system has many problems. In the proposed system, we have used advanced technologies such as artificial intelligence technologies and web development. This application is developed using various languages such as HTML5, CSS, JavaScript, Node JS, React, Mongo dB, etc.

## II. LITERATURE SURVEY

One of the most pressing issues facing higher education institutions today is student performance in leadership positions can be improved. One of the most effective ways to solve quality improvement problems is to provide a system for managing new information about educational processes and organizations. Machine learning methods can be used to collect information from operational and historical data on an educational organization's website. Previous students' data is stored in the system's usage database. Using this data, an identification model is trained and a classification model is evaluated. This article presents a referral program that predicts that students will meet one of five employment conditions, namely: dream company, main company, mass recruiter, suitability and employment interest. This model helps the placement department within the organization to identify potential students and also focus on and improve their technical and interpersonal skills. Technicians can also use this system to determine and utilize their individual placement status. The system helps to increase the number of students at the university and is therefore a key to improving the university's image.

### A. System Architecture

First, students register on the website. When a student visits the site for the first time, they log into the site independently. After completing the registration and login, they can fill out the form according to their knowledge. The machine then reacts to the information provided by the corresponding stream. Data from a computer science student was used for the analysis. The basic knowledge and skills of students with good grades were also analysed. Students who achieve top grades are shown to have excellent skills and logical thinking. These skills cannot be taught directly but can be developed over time and through interaction.

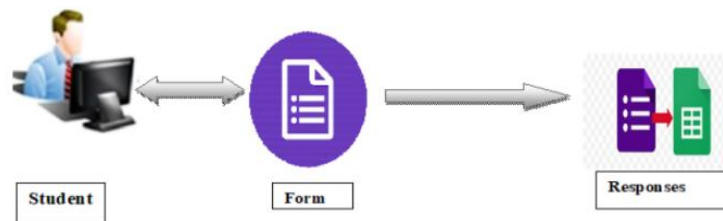


Fig. Counseling System Architecture

## III. METHODOLOGY

### A. Analysis Of the Existing System

The examination of the existing framework is partitioned into two parts.

- 1) Analysis of a manual system.
- 2) An analysis of several existing online career websites.

### B. Analysis of the Manual System

If we analysis the field of career guidance from a general point of view, we will see or conclude that its purpose is mainly to help students develop their individual development Procedures the counsellor uses in the course of his or her work:

- 1) *Counselling*: Through personal conversations, the counsellor helps students resolve many common problems of growing up. This includes a close personal relationship between the student and the advisor in which both discuss objectively, as well as careful plans for the student to help them make decisions.

**C. Limitations Of the Existing Manual System**

The Career Guidance Advisory Service is limited as follows:

- 1) In most cases, counselling and advising is limited to medium-sized universities. The basis of education, i.e. High Primary schools are completely ignored.
- 2) Although there are advisors at secondary universities, the number of full time advisors is extremely small and cannot cover the number of students.
- 3) Some advisors are not committed or diligent and may be unavailable at times.
- 4) Advisors can only supervise students during working hours.
- 5) Problem of generational conflict: There is a general belief among students that the mentor and advisor is a middle aged man or woman who is perceived as “old colleagues” and therefore can only offer suggestions or solutions in a similar manner.
- 6) Consultants are people with their own emotions, personal responsibilities and pressures, so the tendency to have emotional outbursts and absence from work when necessary is inevitable. This prevents students from approaching them. The unpopularity and lack of awareness of careers guidance departments at our secondary schools means that the system is underused and therefore ineffective.

**D. Analysis of an Existing Online Career Advice Website**

With the advent of the 21st century, the Internet has opened up all possibilities for us. Career counselling is no exception. Below are some of the existing online career advice sites and their limitations.

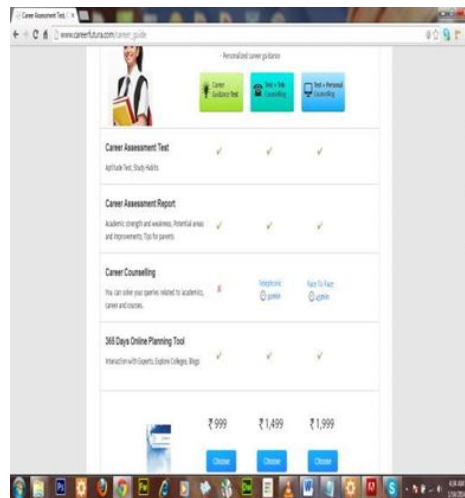


Figure 1: A Paid Career Guide Website

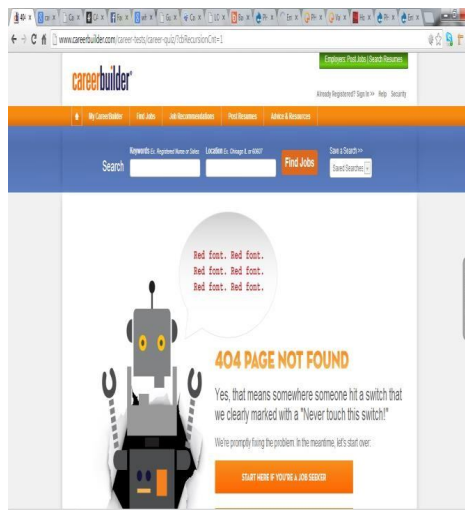


Figure 2. A Discontinued/Broken Career Guide Website

Fig 1 above shows, which demands that those who want to use the career guidance service must pay a reasonably large amount of money. Therefore, it is inaccessible to those who do not have the financial resources. There are no conditions at all for a free trial. The purpose of this study is to provide a FREE career guidance information system.

Figure 2 above shows a broken or discontinued career advice website. Obviously, it can no longer serve the purpose for which it was built.

#### IV. POSSIBLE SOLUTION

Our web-based system is designed to solve this problem. Given the above limitations, it is advisable to make the online career guidance system accessible to everyone. Students. Here are some of its inherent advantages.

- 1) The online career counselling system promises to be available to students anytime, any day and at a time convenient for them (with just a click).
- 2) This information system can serve as an additional tool for real consultants Research.
- 3) Examine the existing manual control system and develop a way to computerize an improved manual control system.
- 4) Web application design by using HTML and CSS.
- 5) Creating a database for a study using MONGODB• Developing a COURSES page.
- 6) Linking a page to a database. In the development of this study, the bottom-top methodology was used.

##### A. Input Design

The input of this system, from the user's point of view, essentially consists of his actions on the pages of the website, from which the system exists. These pages are implemented by coding using HTML (Hypertext Markup Language and pages. Layout and design are done using CSS (Cascading Style Sheet). The user interacts with the system by clicking a hyperlink in a menu and also selecting an option in a form.

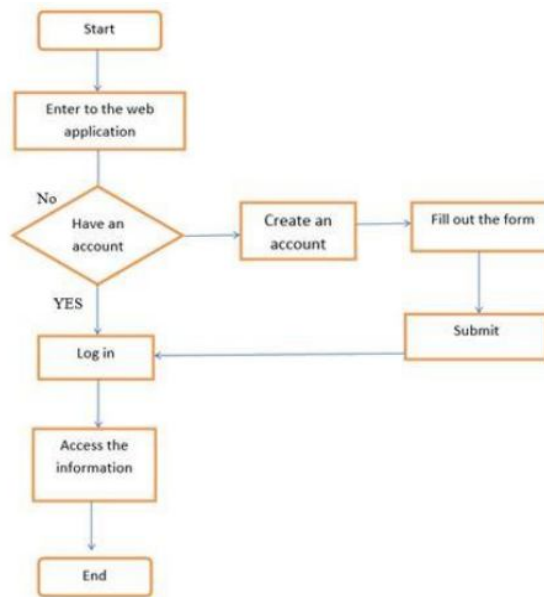


Figure 3: Flow Of Project Career Guide Website

#### V. RESULTS AND DISCUSSION

##### A. Results of Literature Review Limitation

- 1) The level of accuracy is lower
- 2) Not applicable in various industries
- 3) The parameters considered are lower
- 4) Not suitable for real-time solutions in the proposed System:

### B. Results

In the system, we have designed and developed a career guidance system web application which provides appropriate recommendations to the candidate for selecting a suitable position. The recommendations provided in the proposed system are more accurate than the existing career guidance system in this project. The career guidance system was thoroughly researched and then a web application was designed and developed that delivered the expected results.

## VI. CONCLUSION

In this research work, we were able to study the problems faced by the existing manual system, develop a web based career guidance system that will improve the existing manual/human career guidance guides, and implement a web based career guidance system. based application that helps young people understand themselves better and advises them on the most suitable career path. And also serve as an additional tool for career advice and consultants. In this study, we investigated career counselling, developed and implemented a functional web application, obtaining several successful test results.

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