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Career Guidance Website with Aptitude Test

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Abstract: ***Choosing the appropriate career is crucial in today's environment. It is an extremely challenging and complicated task. One should consider their skills, area of interest, abilities, and capabilities before picking the proper vocation. Students hesitate to enter some occupations due to a lack of knowledge about certain fields, which has had a negative impact on those professions. Career Guidance Web Application with Aptitude Test is a type of counselling that focuses on assisting people in determining the best career path for them. It works as an informative tool that will guide the user to get information about the different streams in which he or she wants to pursue their career. Career Guidance Web Application with Aptitude Test a space for counselling that focuses on assisting people with tracking down the right career pathway. It works as an informative tool which will guide the user to get the information about the different streams in which he/she wants to pursue their career. Also, the normal person can get the information about the different streams which he wants to know. If the user is confused to choose one, we are also providing an Aptitude test to find out the eligibility and the interest of the user. The user's result will be generated respective to its performance in the test.***
Keyword: Career, Guidance, Counselling, Courses, Aptitude Test, Result

I. INTRODUCTION

There is no well-defined system for career guidance. Students must browse the websites of hundreds of colleges before deciding on their alma mater. Without the proper guidance, they often find it difficult to find relevant information about the career they want, because of which students make poorly researched decisions that they then have to struggle with. When students are asked the question of what they want to do in the future, most have no clear idea in their minds. Some of them may have multiple interests and become perplexed when attempting to choose one. It is a very complicated and difficult task for the students. While choosing the right career, one should think according to their skills, area of interest, abilities, and capabilities.

Our application is a solution for all these problems. The career guidance system will provide a right path for the student in which course or stream they are interested, and it will avoid confusion for the student who doesn't know which path is appropriate for their career. This system will first determine the student's eligibility by administering the aptitude test, after which it will tell (or choose) a better stream for them based on their future goals. It is an approach to providing proper guidance to the students by recommending careers after the 10th and 12th grades. This system helps every parent and student avoid confusion and better understand their career interests.

The student first needs to select the grade 10th or 12th, which helps the user find and explore different courses. After selecting a grade, the user will attempt the aptitude test. The aptitude test consists of nine logics, which consist of logical reasoning, numerical reasoning, verbal reasoning, abstract reasoning, mechanical reasoning, inductive reasoning, situational judgement, diagrammatic reasoning, and Watson's glacier. The students are evaluated on the basis of the aptitude test, and proper career guidance is given to them to achieve the heights of success in their lives.

A. Motivation

Nearly every student does not have complete information about the streams and fields available according to their interest and can make a confusing decision that will lead them towards a tough future. Gathering this information is way too hard and time-consuming, so we are developing this application to save the time for students and suggest them a better career option.

The main motivation behind this project is

1) This web application will make it easier for students to learn the basics of the various streams available to them, as well as save them time because they won't have to search for it one by one.

2) The user doesn't have to give the long aptitude test of at least 3 hours since he can give it online and get the results at the same time. It is also a pocket-friendly option because the test that we are providing is free of charge.

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B. *Proposed System*

Due to misguidance or peer pressure, students often end up choosing an academic major which is incompatible with their interests and passion. To avoid this dilemma, we have proposed this website wherein, students will have a platform to find the right information about their fields of interest and test their skills in different streams to see where exactly they excel and give them proper career guidance to achieve the heights of success

C. *Objectives*

The main objective of this project is

1) To let the user, identify his career goals and objectives
2) To provide a time saving solution for student as he/she do not have to search about every field as it provided at one place.
3) To make it easy to access and understand by any student or parent since the whole website is in distinguished tabular format.
4) To create paper free solution for the Aptitude test
5) To let the user gets the result immediately after the test gets

II. LITERATURE REVIEW

In the process of system development, literature reviews conducted to understand the theory, methods and technologies associated with systems that have been deployed. Background research on the organization and comparative studies of existing systems is also done to understand the system requirements before the system was developed.[4] The existing system involves one to one counselling, or pen and paper guidance.

This has many drawbacks such as less accuracy, unavailability of the counsellor and many more. This brings us to the age-old discussion of keeping information in the form of databases versus keeping the same on sheets of paper.[2] Here, the public organization offer counseling in different school/learning places while there are private organization which provide personal counseling sessions charging a bit more money w.r.t public organizations.

These organizations first communicate with the students, then most probably take an aptitude test and based on the results and their personal experience while talking with the individual, suggest them a proper career path with detailed information about the process. Obviously, this does not happen in a day or so as it is a manual system, it takes around a week or two for guiding and counseling people along with taking tests analyzing it and then do a one-to-one session. In this session they review the individual's interests, aptitude and talk through the career paths.

According to Vyas Kumar, Prof.Rupali nikhare, Rucha Ghatugade, Gauri chormunge, "web-based career guidance system".[4], an application was made using data mining algorithms and web development to make student understand their strengths, skills and personality. By using this application, students can choose a career path by directly interacting with counselor. Lakshmi prasanna, DR.D. Haritha, "Smart Career Guidance and Recommendation System"- Recommender system is a computer program build with the help of experts where the details of the students and their aptitudes help finding a right course for his future. This project proposes feasible predictions for student's field selection based on their marks and choice of interest.[1]

Prof. Mrs.S.A.Shete, Karan Kakade, Pooja Merguwar, Prathmesh Chingale, Sakshi Ojha. "Review on Career Guidance Web Application" – This paper aims to helps in guiding the students for choosing the appropriate field. For that we will be taking their information which will mainly include the user's qualifications, interest area and other academic related data. On the bases of which it will suggest a list of colleges so, it will make it easier for students.[5]

Rajan S., Ronit P., Kaushik K., Gursimran S. C., "Career Guidance System"[3]- The purpose of this study is to present a career and educational guidance application as a digital transformation application in the area of career counseling. The suggested approach gives students interactive tools to choose universities that are suitable for their educational needs, encourages graduates to choose professions that are appropriate for their practical experience, and offers them essential training courses required for certain jobs.

III. SYSTEM REQUIREMENT

A. *Hardware Requirements*

1) Works on: Laptops, Computers, Tablets and Mobiles.
2) RAM: 8GB
3) Bandwidth: 16Mbps or more
4) Processor: Intel I3

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B. Software Requirements

1) Browsers Supported: Chrome, Microsoft Edge,
2) Operating System: Windows 10
3) Technology used: HTML, CSS, JavaScript.
4) PHP: Used for implementation of the Aptitude test.
5) Apache Server: It is used to run the PHP.

IV. PROPOSED SYSTEM

Career guidance web application with aptitude test works as an informative tool which will guide the user to get all information about different course in which the user is interested and wanted to pursue the career. This will reduce burden of the students to know basic information about different stream and it will reduce time and student can attempt test to see if they are eligible for the particular stream or not. The aptitude test consists of 9 nine logics. The career guidance web application is a fully software web application. This website has been developed for students to explore an interest in their future career. With this site, the student will be able to investigate the career description and important subjects related to the career. The objective of this app is to make student life easier

The Career Guidance Website basically has two main parts of functioning:

1) First, is the informative part which provides details about all the different streams/courses along with the top colleges for that course
2) Second, is the online aptitude test which suggests the user's interests/aptitude on the basis of his answers given

Functions are divided according to user type such as

- *Admin:* The Function of admin is to add/edit in each module. It can update information for each career cluster and add questions for aptitude test
- *Candidate:* The Function of student is to search through a list of career clusters with a description of each, answer a few questions to determine an interest and to answer the aptitude test.

A. System Architecture

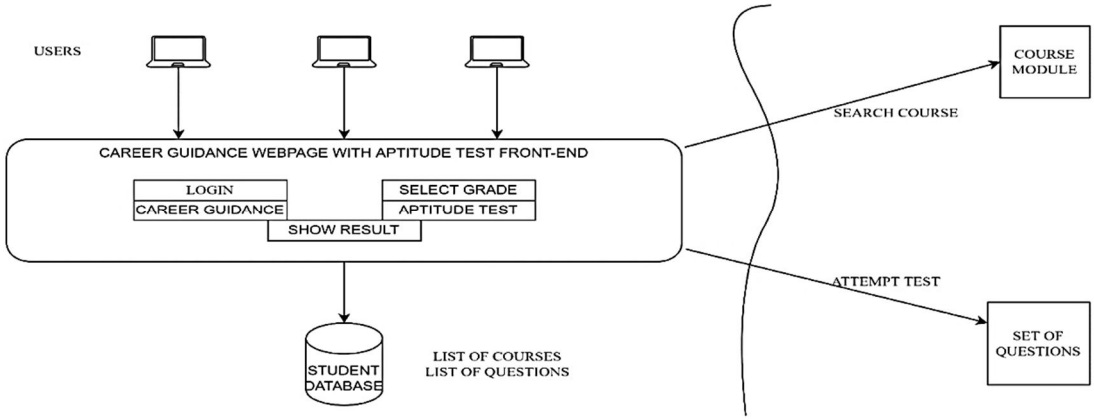

Fig. 1 Architectural design diagram

B. Modules Used

The website contains five pages i.e., Home Page, Career Guidance Page, Aptitude Test Page and Result

1) Home Page: The user will see Career Guidance and Aptitude Test option. These options are used to direct the user to the respective page.
2) Career Guidance Page: It shows the user the course page where one can see the career web pages, we have provided with two main options which are "After 10th" and "After 12th"
3) Aptitude Test Page: Shows the user test page where the user can try the aptitude test, you have to click on "Begin aptitude test".
4) Result Page: Aptitude test result will be shown here.

C. Result logic

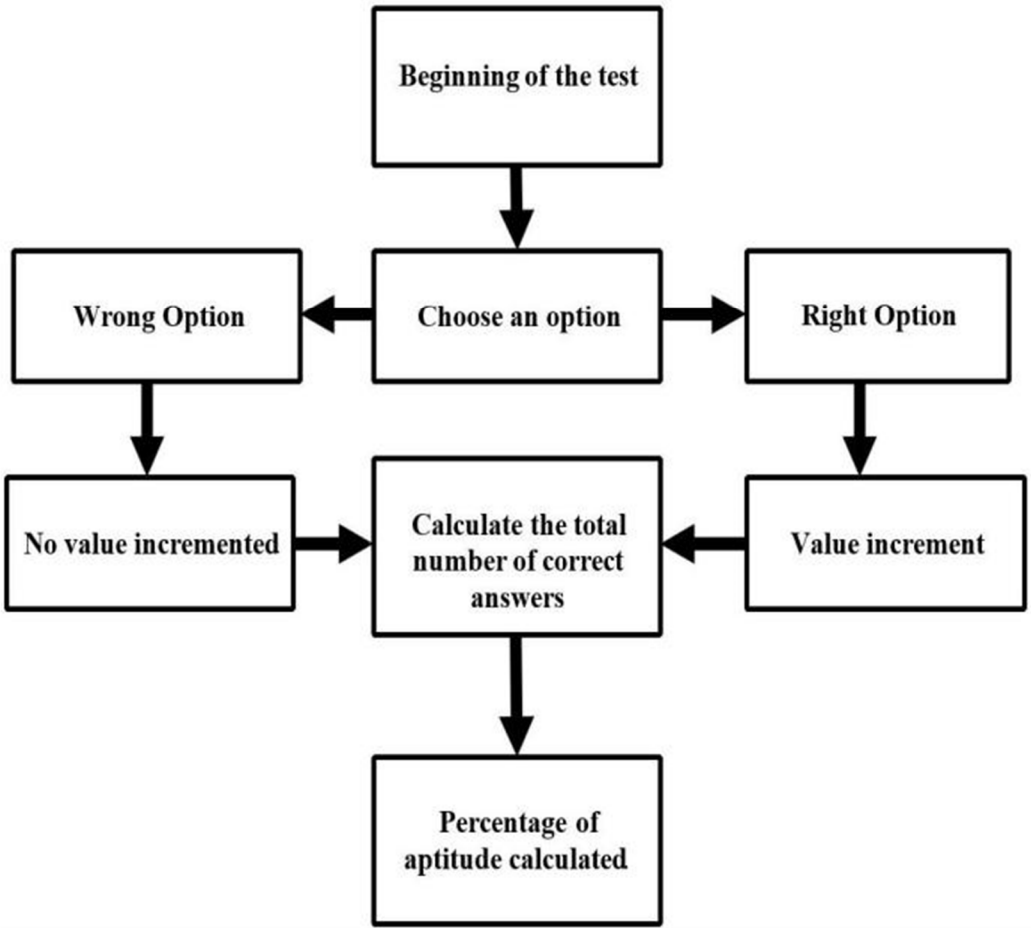

Fig. 2 Test Result logic

D. Implementation

1) When the user opens our web application, they are greeted with our home page. This is the page where the user gets all the information related to our website as well as the option to see our career guidance web pages and our aptitude test.

2) If the user wants to see the career web pages, we have provided two main options, which are "After 10th" and "After 12th."

3) In the After-10th section, we have provided the main information about the core fields, which are science, commerce, the arts, and diploma and vocational courses. On this informative page, we have provided a list of subjects in the stream, skill requirements, and career options after selecting a core stream.

4) In the case of the After-12th option, since the user has chosen the core stream, we've provided a list of career streams like engineering, medical, para-medical, law, management, etc.

5) Because each career field has many sub-fields, we have provided all of them and their brief information, as well as highlighted points such as course level, duration, subjects, eligibility, expected job position, and a list of top institutes offering the course.

6) If users want to try the aptitude test, we have provided the "Begin aptitude test" button. After clicking that button, the user will be redirected to a new web page where he will learn the workings of the aptitude test and the basics of the aptitudes.

7) We have added nine types of aptitudes to our whole test, which are

8) An aptitude test consists of 80 multiple-choice questions that the user must answer, with the option to leave if he is unable to answer any of them.

9) After answering all the questions and submitting the test, the results will be generated immediately, providing each aptitude's result and the overall reason.

E. Results

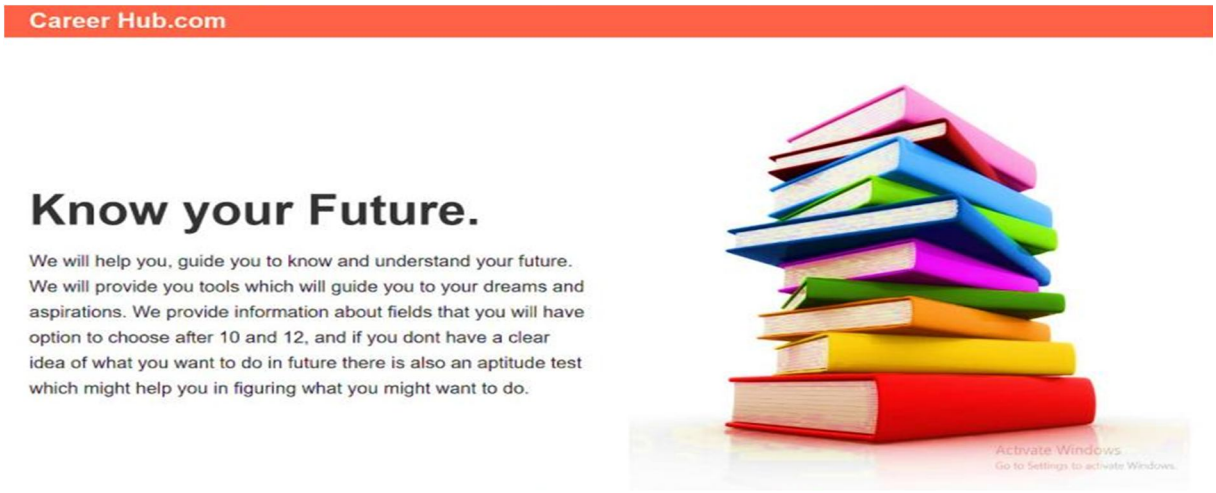

Fig. 3 Home Page

Fig. 4 Course option on Homepage

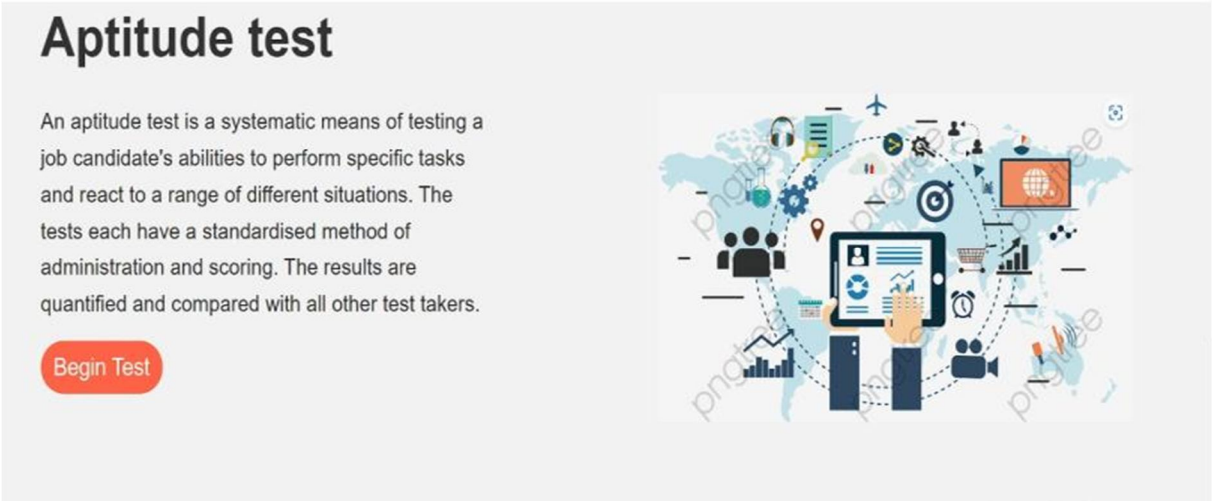

Fig. 5 Aptitude test information on Homepage

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Fig.6 After 10th course page

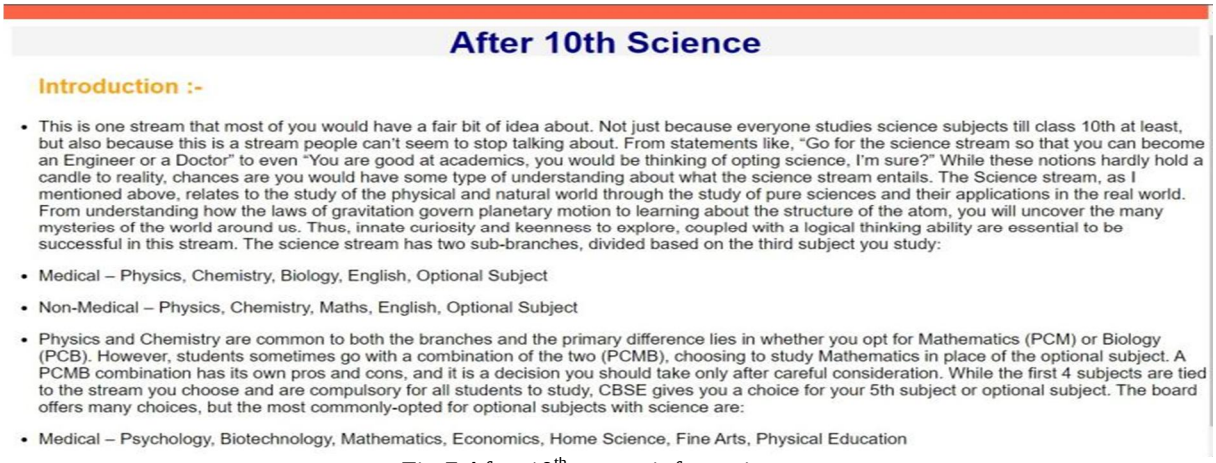

Fig.7 After 10th stream informative page

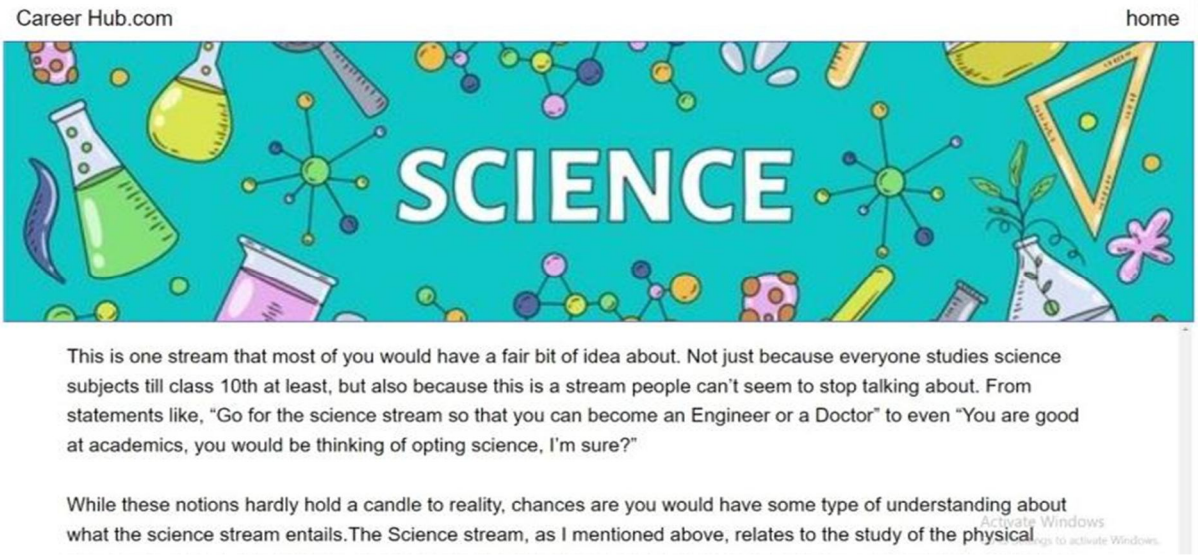

Fig. 8 Science information page

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Fig.9 After 12th course page

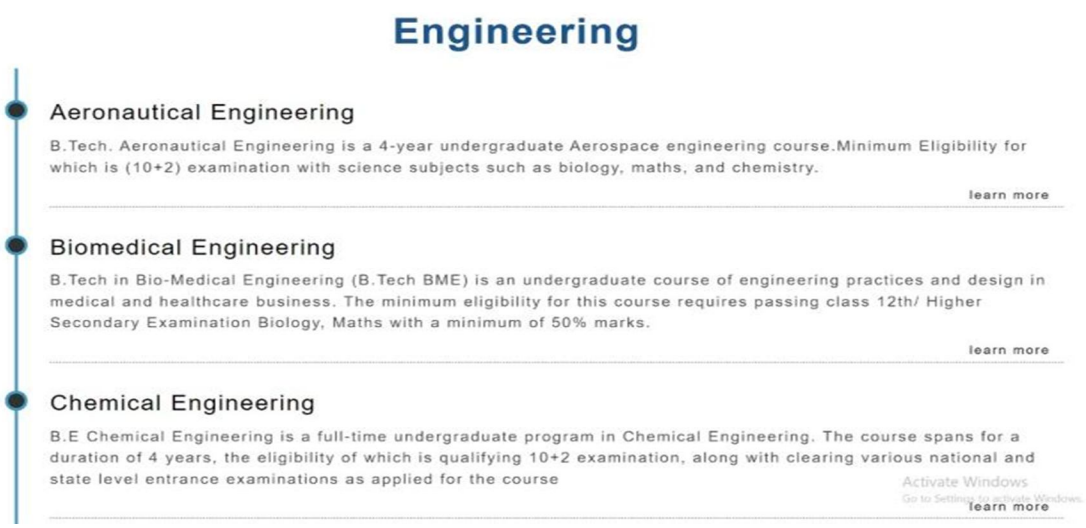

Fig. 10 Department page

Fig. 11 Engineering information page

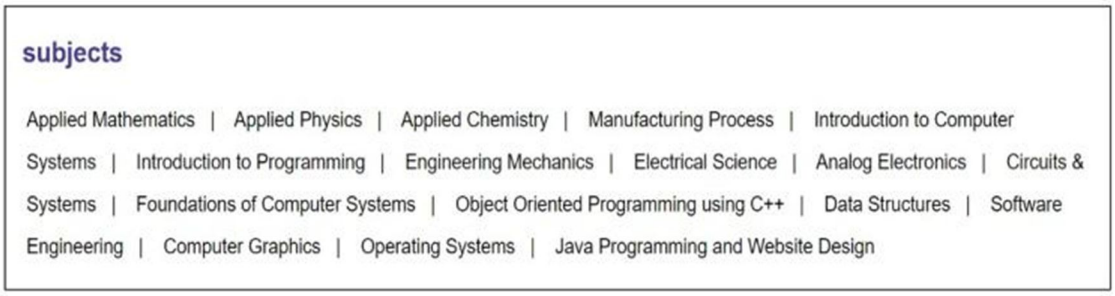

Fig. 12 Subjects under engineering

Institute	City	Average fees
IISc	Bangalore	INR 20,700
IIT	Kanpur	INR 50,575
BITS	Pilani	INR 3,37,925
IIIT	Delhi	INR 1,40,500
Adhiyamaan College of Engineering	Hosur	INR 1,35,000
Adithya Institute of Technology	Coimbatore	INR 75,000
ACET	Coimbatore	INR 50,000
Alpha College of Engineering	Chennai	INR 51,171
Anna University	Chennai	INR 46, 470

Fig. 13 Extra information

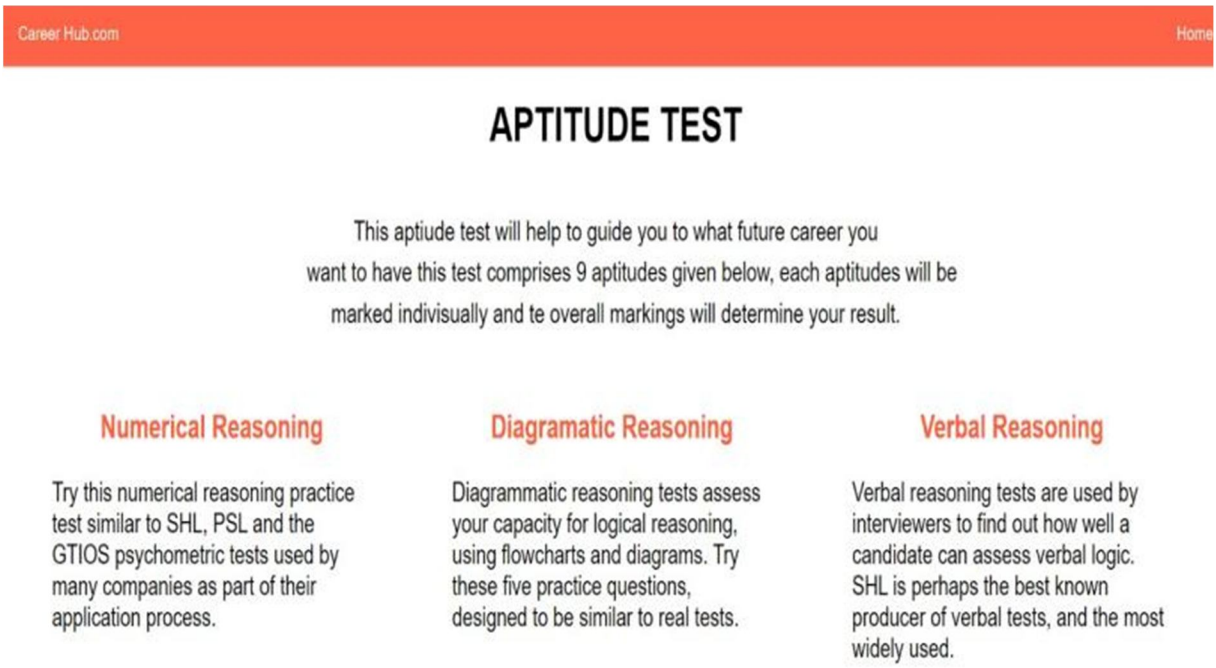

Fig. 14 Aptitude Test Homepage

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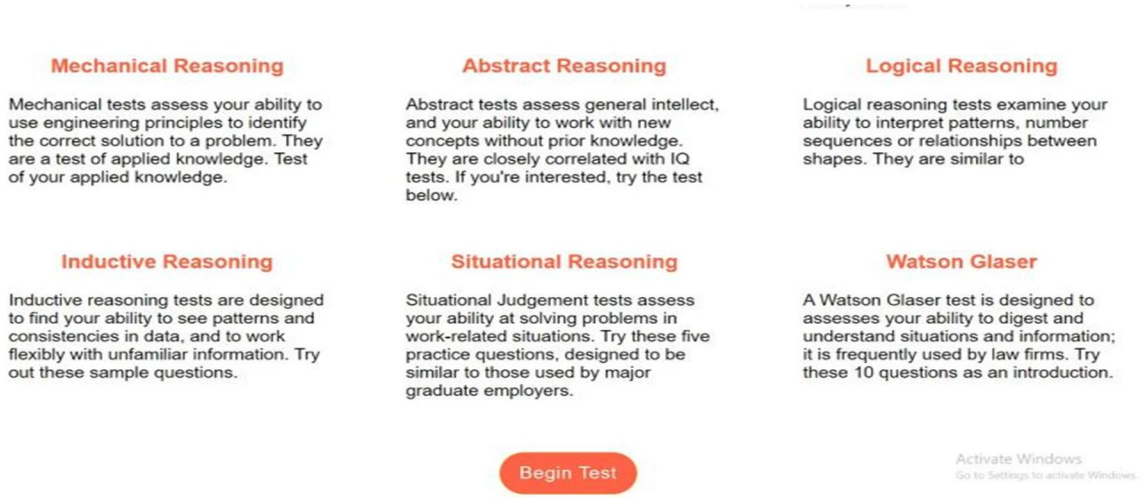

Fig. 15 Aptitude Test Homepage

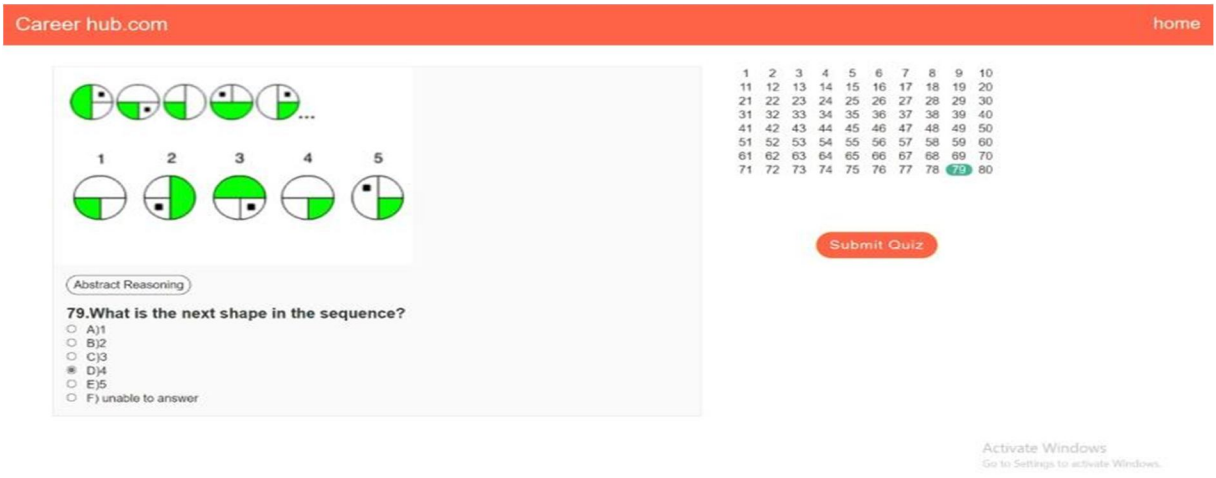

Fig. 16 Aptitude test

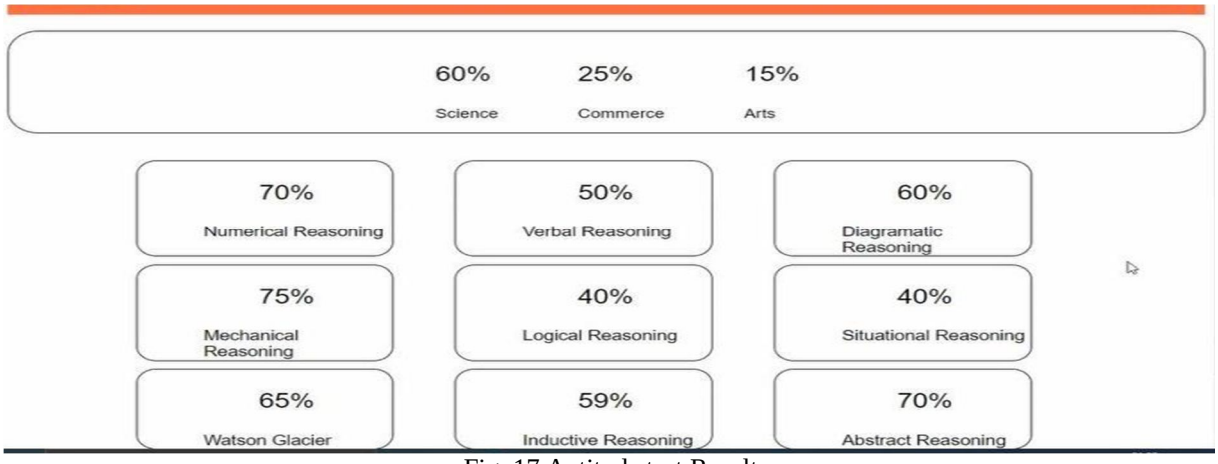

Fig. 17 Aptitude test Result

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V. CONCLUSION

Our project's implementation in the real world will undoubtedly be helpful for the students as they decide which field to pursue as well as how to best get ready for the future. Before we began the project, we took the time to thoroughly examine how the current system for career counselling and advice is operating. As far as we know, all career counsellors currently perform their duties in the form of a written test and in an offline setting. So, using HTML, CSS, and PHP, we develop a web-based application.

VI. ACKNOWLEDGEMENT

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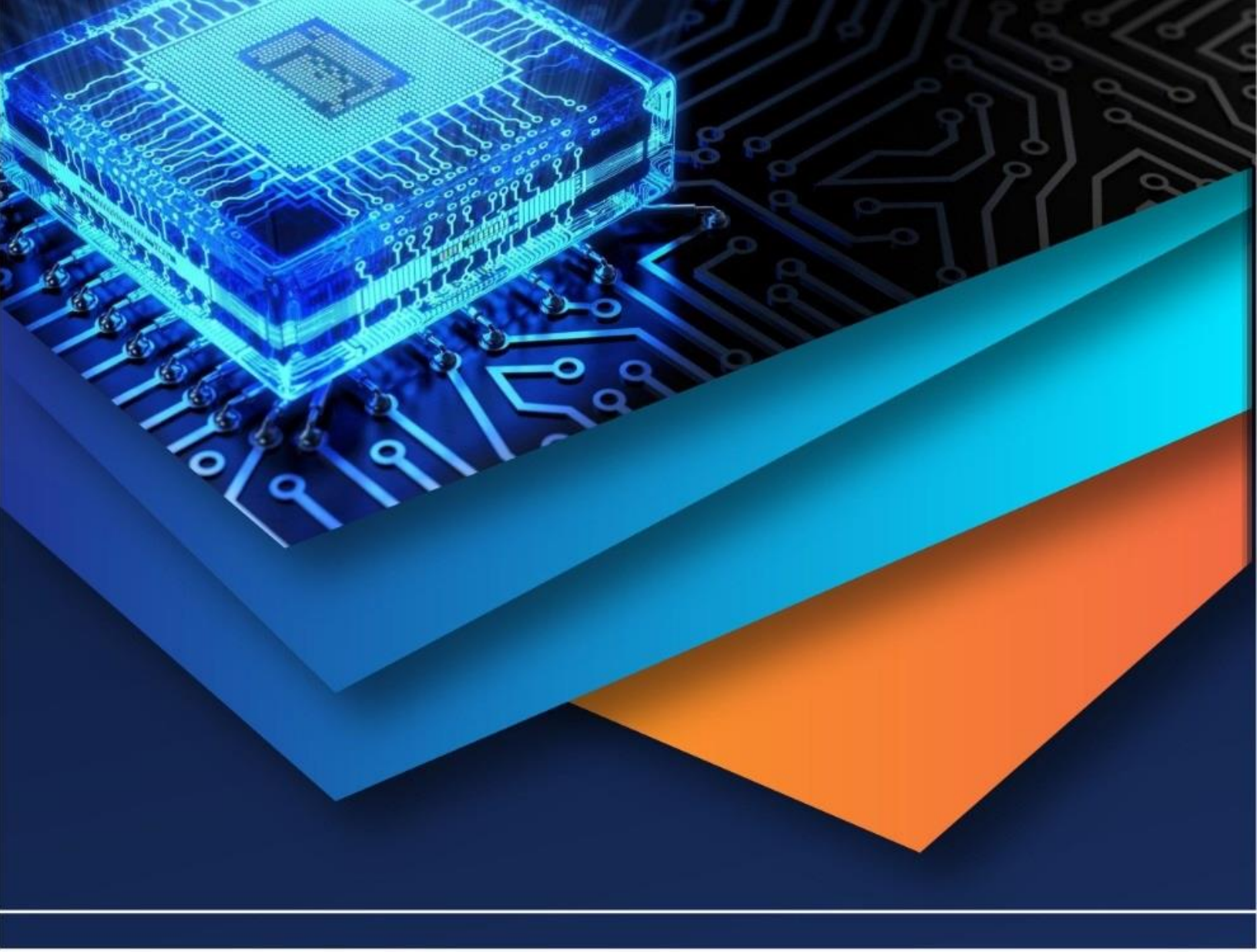

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