MINI PROJECT

on

SCIENTIFIC STREAM SELECTION- MAP YOUR TALENTS

Submitted in partial fulfilment for the completion of the course

Mini Project I in

III Semester of B.E.

INFORMATION TECHNOLOGY

By

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CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY (A)

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CERTIFICATE

This is to certify that the project work entitled "**SCIENTIFIC STREAM SELECTION**" submitted to **CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY,** in partial fulfilment of the requirements for the completion of III semester of B.E. in Information Technology, during the academic year 2019-2020, is a record of original work done by

CHITTI SAITEJA (160118737041), GONE KALYAN REDDY (160118737028) during the period of study in Department of IT, CBIT, HYDERABAD, under my supervision and guidance.

Project Guide   **Head of the Department**
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CONTENTS

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We would like to take this opportunity to thank our Principal,
Dr. P. Ravinder Reddy, as well as the management of the institute, for having designed an excellent learning atmosphere.

Our thanks are due to all members of the staff and our lab assistants for providing us with the help required carrying out the groundwork of this project.

DECLARATION

This is to certify that the work reported in the present report title "SCIENTIFIC STREAM SELECTION -MAP YOUR TALENTS" is a record of work done by CH.SAITEJA (160118737041) , G.KALYAN REDDY(160118737028) in the Department of Information Technology, Chaitanya Bharathi Institute of Technology, Hyderabad.

No part of the report is copied from books/ journals / internet and wherever the portion is taken, the same has been duly referred. The report and results are based on the project work done entirely by us and not copied from any other source.

G. KALYAN REDDY (160118737028)

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ABSTRACT

The Mini Project titled "SCIENTIFIC STREAM SELECTION AND CAREER PLANNING" is for showing the Students career options that can be choose on which their potentials are good.

As we are in the era of Modernisation, Education is the most important part of our life. Many Students who can Study well fail to choose the Right Path.

In Life you can become either a Passenger or a Pilot it's your choice. Our Project focuses on showing them to choose Right Path.

This Project is developed in C++. It contains Operations like Searching Streams, entrances, best Colleges etc. The Project is for Students who just passed out 10th class, 12th class, UG Courses.

LIST OF FIGURES

1. INTRODUCTION

1.1 MOTIVATION

Nowadays many people are struggling to choose their stream for their career. But our project helps them to overcome this problem. By this project students can Map their talents to the respected streams.

Students can check their performance and improve their studies. In this technical world it is essential to save time. So, one can at a time check the top 5 priority wise college's details and also, they can write a Test.

1.2 OBJECTIVE OF THIS PROJECT

This project is designed for selecting the Stream and viewing the details of the best colleges. This project can be used by any college/school students to map their talents. This is a simple and secure method that helps to know the streams available in society and choose the appropriate among them.

1.3 PROBLEM STATEMENT

The Goal of this Project is to Accomplish the task which is to provide the Students with the Information regarding entrances, list of colleges, their performance and their queries etc. By this many students get their guidance for further studies.

1.4. EXISTING SYSTEM

Existing system is a manual and is paper based this requirement for a lot of human effort. The question papers here are not secured. There can be redundancy of data. There can be errors in the preparations. Maintenance is difficult process.

Guidance and counselling have been limited to few institutions therefore not all the students get the proper guidance. Although some career guidance websites are present it charges huge fees which is not affordable by large group of society. The students nowadays may find uncomfortable to approach a guide who is older in age this is due to generation gap.

1.5. PROPOSED SYSTEM

In this system, questions can be stored and retrieved easily. The system checks the

answer by matching the predefined answers in the database and user's answers. In this system, the students have to select the class and their branch, then the test is conducted, after the test they can check their marks. Based on their marks and branch selected branch we suggest them the best colleges priority wise. The admin can see the details of all the users who are registered into this system. In this system, the students can ask for the queries and replies will be given by the admin in order to solve the problems of the students.

2. SOFTWARE AND HARDWARE REQUIREMENTS

2.1 INTRODUCTION

The requirements specification is a technical specification of requirements for the software products. It is the first step in the requirements analysis process it lists the requirements of a software system including functional, performance and security requirements. The requirements also provide usage scenarios from a user, an operational and an administrative perspective. The purpose of software requirements specification is to provide a detailed overview of the software project, its parameters and goals. This describes the project target audience and its user interface, hardware and software requirements. It defines how the client, team and audience see the project and its functionality.

2.2 USERS AND THEIR CHARACTERISTICS

The project is done for the responsible users only. Keeping in mind that the public is responsible and gives the correct input to the application and uses it for their benefit, and also keeping in mind that the general and local managers are responsible and will work on the complaints as fast as possible and be flexible to the public this project is designed.

2.3 SOFTWARE AND HARDWARE REQUIREMENTS

Software Requirements:

Operating systems: Windows* 7 or later, Mac OS, and Linux.

Included development tools: Dev C++, Notepad.

Hardware Requirements:

Processors: Intel® Core™ i7-8700 CPU@3.2GHz.

32 – 64-bit processor

Hard Disk: (min)100 GB

Input device (mouse /keyboard) to select options

Sufficient RAM to run the program (Minimum 2GB)

3.METHODOLOGY

In this system, questions can be stored and retrieved easily. The system checks the answer by matching the predefined answers in the database and user's answers. In this system, the students have to select the class and their branch, then the test is conducted, after the test they can check their marks. Based on their marks and branch selected branch we suggest them the best colleges priority wise.

The admin can see the details of all the users who are registered into this system. In this system, the students can ask for the queries and will be given by the admin in order to solve the problems of the students.

3.1 ARCHITECTURE OF PROPOSED SYSTEM

Flow Chart
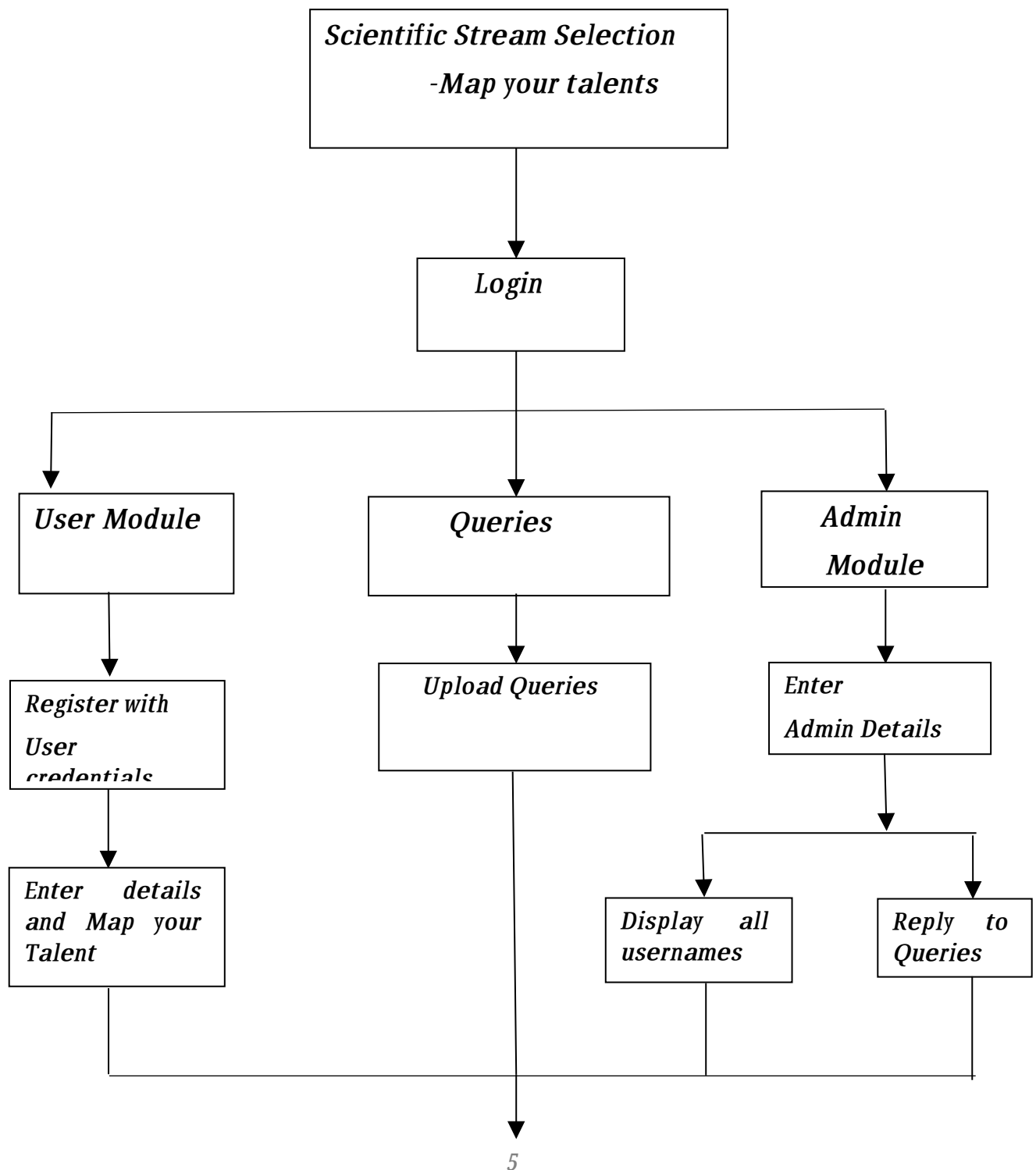
```
                    ┌─────────────────────────────┐
                    │  Scientific Stream Selection │
                    │      -Map your talents        │
                    └─────────────────────────────┘
                                  │
                                  ▼
                          ┌──────────────┐
                          │    Login     │
                          └──────────────┘
                                  │
        ┌─────────────────────────┼─────────────────────────┐
        ▼                         ▼                         ▼
  ┌──────────────┐         ┌──────────────┐         ┌──────────────┐
  │ User Module  │         │   Queries    │         │    Admin     │
  │              │         │              │         │    Module    │
  └──────────────┘         └──────────────┘         └──────────────┘
        │                         │                         │
        ▼                         ▼                         ▼
  ┌──────────────┐         ┌──────────────┐         ┌──────────────┐
  │ Register with│         │Upload Queries│         │    Enter     │
  │ User         │         │              │         │ Admin Details│
  │ credentials  │         └──────────────┘         └──────────────┘
  └──────────────┘                                         │
        │                                        ┌─────────┴─────────┐
        ▼                                        ▼                   ▼
  ┌──────────────┐                        ┌──────────────┐   ┌──────────────┐
  │Enter  details│                        │ Display   all│   │ Reply     to │
  │and  Map  your│                        │ usernames    │   │ Queries      │
  │Talent        │                        └──────────────┘   └──────────────┘
  └──────────────┘
```

4. IMPLEMENTATION

Modules in our Project:

Student Registration:

Students need to Register with a new Username , Password and give their Personal Details like Name, Contact no, Email-id, etc and their details are used to keep them up to date in future .The details of them are stored into a separate file and can be used for future reference. Password entered must be of minimum 6 digits. User class is created and register member function is used for registering the username and password.

Student Login:

Students need to Login with their unique Username and Password. Password is hided for Security Purpose. Students need to enter their Class completed and then student have to take a small test and he can view his performance and then he can choose any entrance for his future study and list of colleges will be displayed. We have used login member function in the class User for checking the username is of registered username and password of his matched or not. We have created Classes Tenth, ug1, ug2 for displaying entrances, displaying list of colleges, conducting a short test.

Admin Login:

Admin need to login with his unique User-id and Password and he can Access all the Information of the Users and clear the User Queries. We have created one more fstream object for admin to clear the queries. Admin can also view all usernames and passwords and keep a track of all the users. Admin can clear all the queries asked by the users by the fstream object and can enter his answer into next line of the file with query.

Ask a Query:

User can ask his Queries other than information provided for queries we have stored them into a file query by using fstream we have entered the query asked by the user.
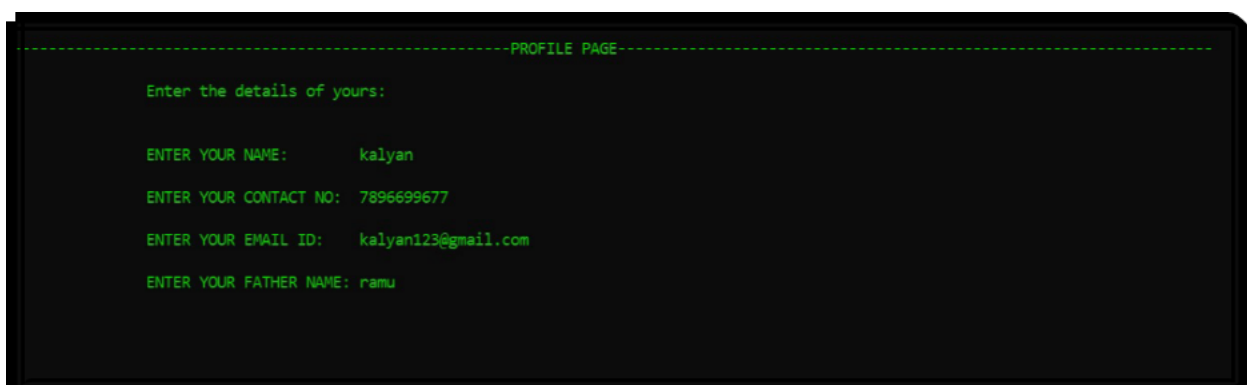
5. RESULTS AND SCREENSHOTS

5.1 STUDENT REGISTER

1. We have given a choice for the student to register by a new Username and Password.

Fig 5.1.

2. Student details like Name, contact no, Email-id, Father Name are saved into a file after Registering.

Fig 5.2.

3. Registered Username and Password are saved into another file.

4. Student details are taken in to the file to store them for future reference.

5. Password entered by the user must contain minimum of 6 digits

5.2 STUDENT LOGIN

1. We have given a choice for the student to LOGIN by a Registered Username and Password.
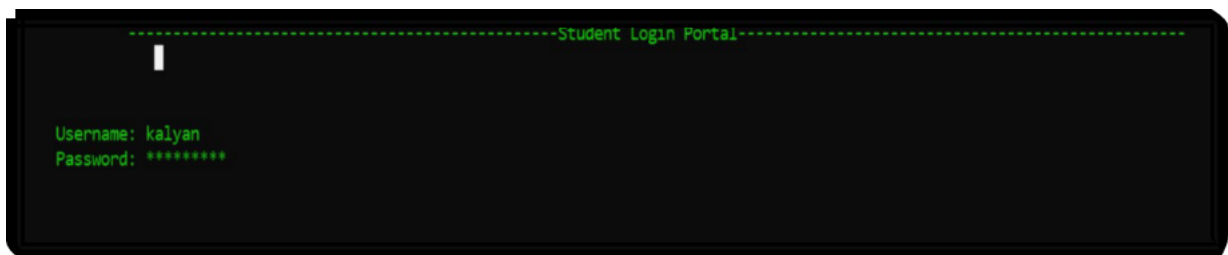

Fig 5.3.

2. Student password is hided for security purpose.

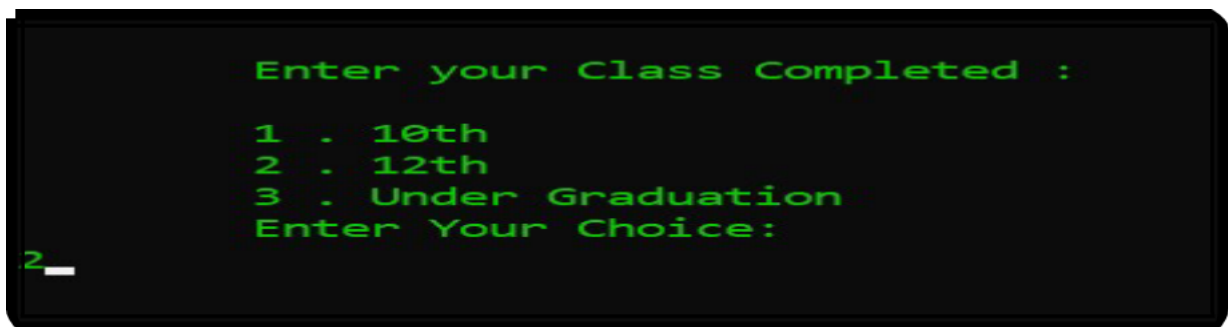*3. After logging in successfully student must enter the class completed.*

Fig 5.4.

4. We display the streams based on his class completed.

5. *If the class completed by the user was 10th,*

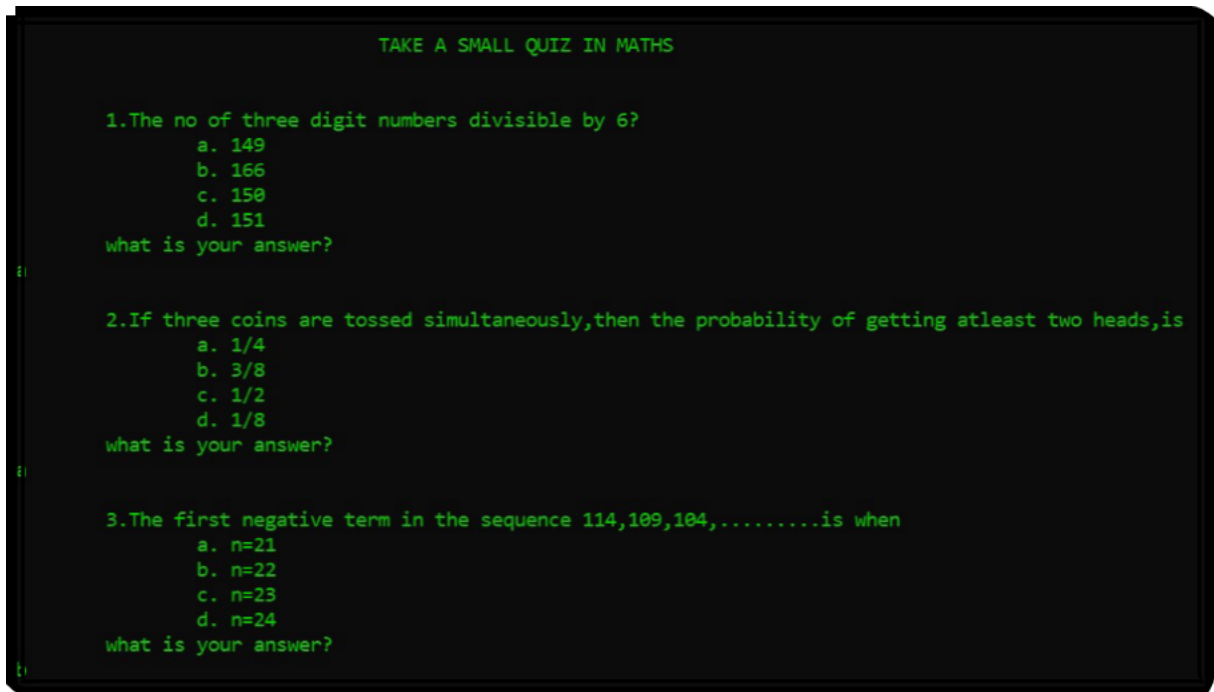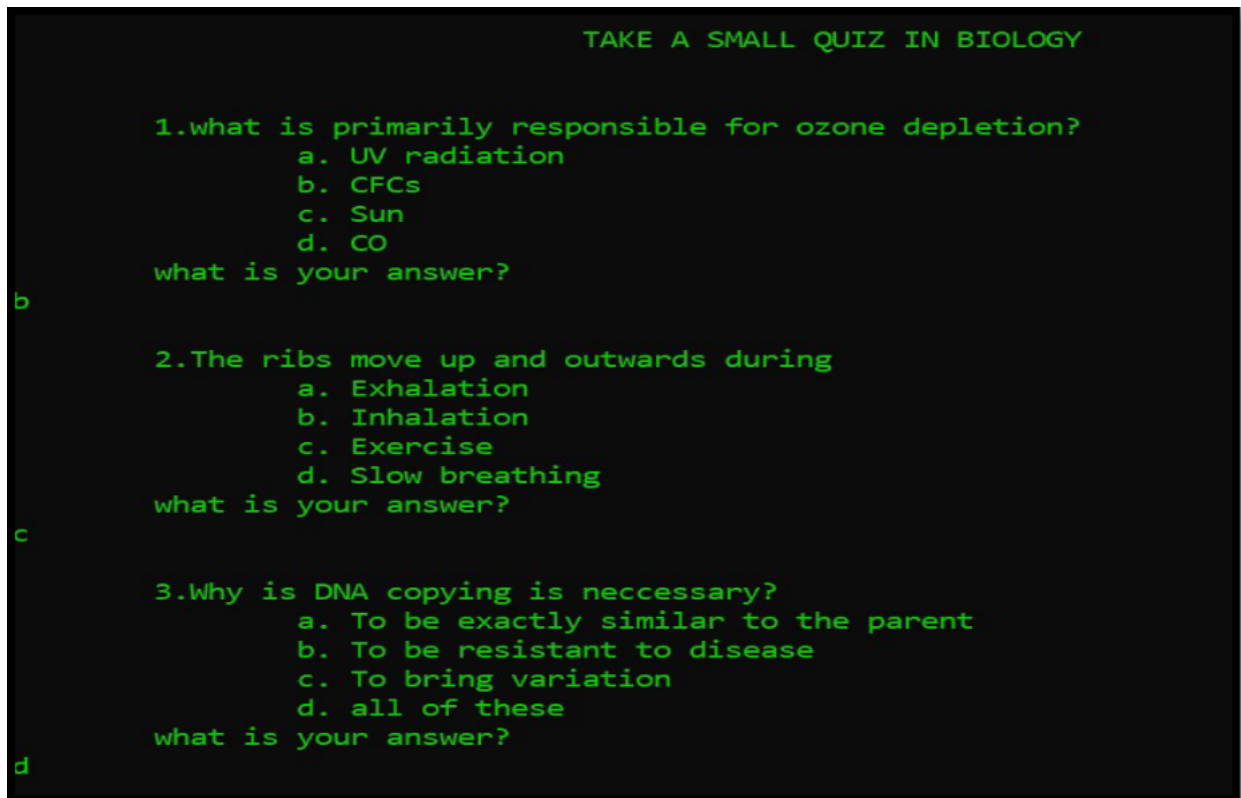   a. *We conduct a simple test on maths and biology.*

```
                    TAKE A SMALL QUIZ IN MATHS


    1.The no of three digit numbers divisible by 6?
            a. 149
            b. 166
            c. 150
            d. 151
    what is your answer?


    2.If three coins are tossed simultaneously,then the probability of getting atleast two heads,is
            a. 1/4
            b. 3/8
            c. 1/2
            d. 1/8
    what is your answer?


    3.The first negative term in the sequence 114,109,104,.........is when
            a. n=21
            b. n=22
            c. n=23
            d. n=24
    what is your answer?
```

Fig.5.5.

```
                    TAKE A SMALL QUIZ IN BIOLOGY


      1.what is primarily responsible for ozone depletion?
              a. UV radiation
              b. CFCs
              c. Sun
              d. CO
      what is your answer?
b


      2.The ribs move up and outwards during
              a. Exhalation
              b. Inhalation
              c. Exercise
              d. Slow breathing
      what is your answer?
c


      3.Why is DNA copying is neccessary?
              a. To be exactly similar to the parent
              b. To be resistant to disease
              c. To bring variation
              d. all of these
      what is your answer?
d
```

Fig 5.6.

b. Based on the performance we map their talents.

```
      5.which of the following acid is present in vinegar
              a. Citric Acid
              b. Malic Acid
              c. Oxalic Acid
              d. Acetic Acid
      what is your answer?
d



          * BIPC stream maps to your talent *

--------------------------------
```
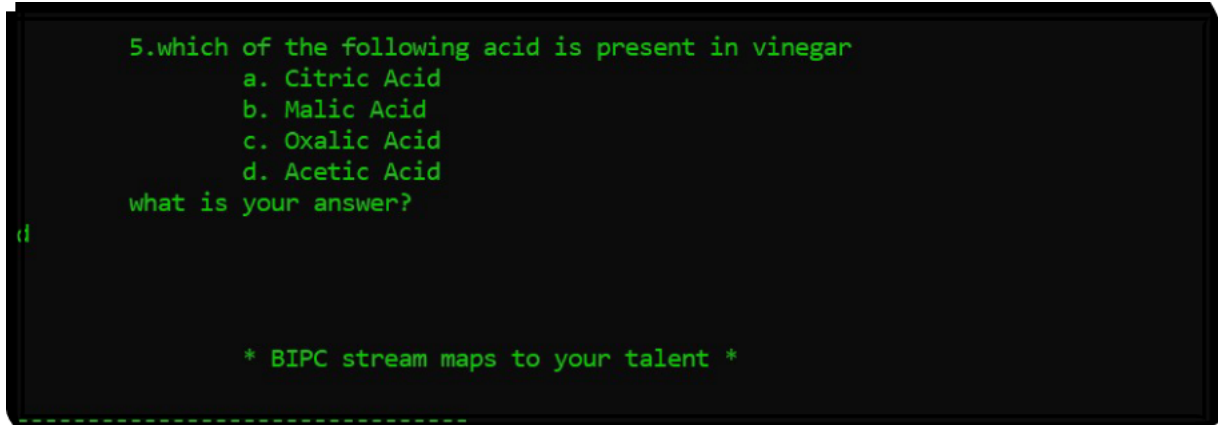
Fig 5.7.

```
        5.which of the following acid is present in vinegar
               a. Citric Acid
               b. Malic Acid
               c. Oxalic Acid
               d. Acetic Acid
        what is your answer?
a

        * MPC stream maps to tour talent *
```

Fig 5.8.

6. If the class completed by the user was 12th

a. We take the stream chosen by user for Intermediate. Student must choose their respective stream (MPC or BiPC).

```
        ENTER YOUR STREAM SELECTED FOR INTERMEDIATE
1.MPC

2.BIPC

        ENTER YOUR CHOICE:
1
```

Fig 5.9.

b. If the stream chosen by the user is MPC:

1. We display List of Entrances and their details in user's selected stream.
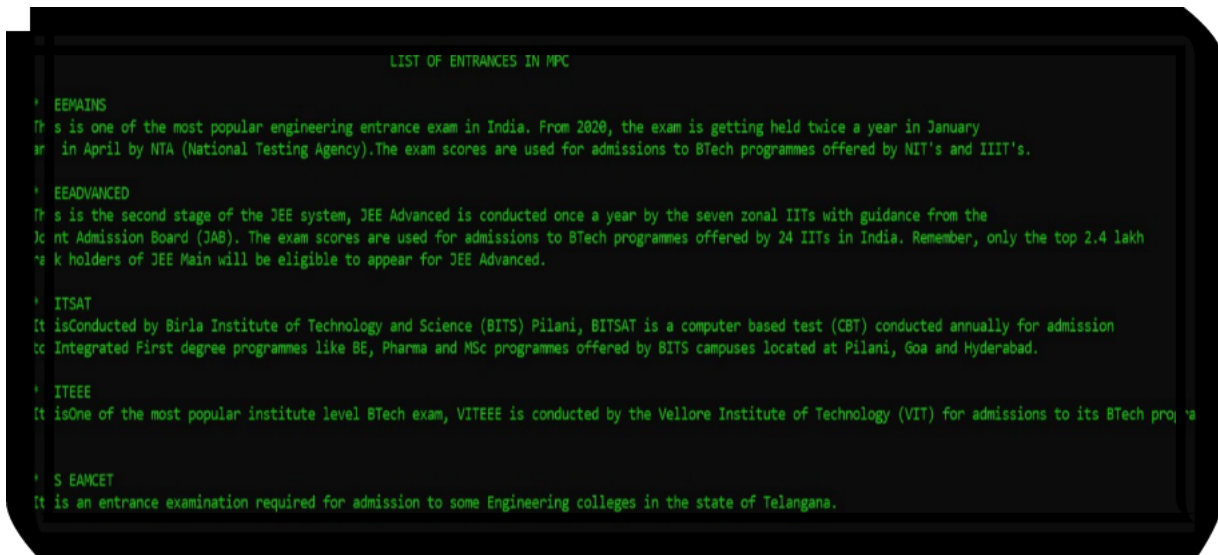
Fig 5.10.

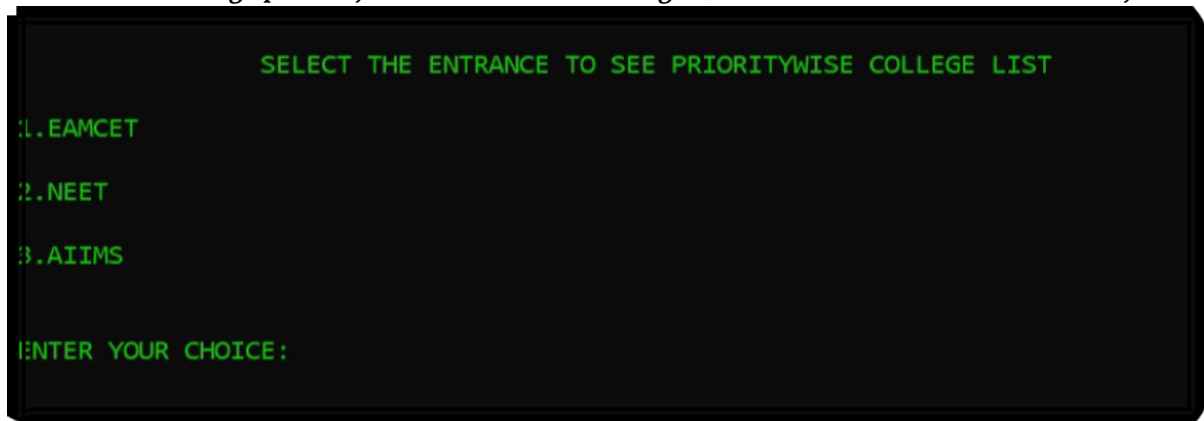2. For knowing priority wise list of colleges, user needs to choose any entrance.
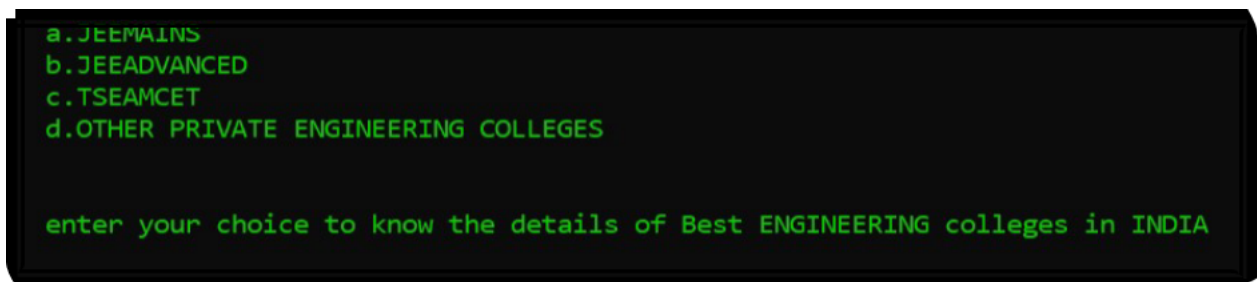
Fig 5.11.

3. Branches will display on the screen and user must choose interested branch among them, then priority wise college list is displayed.

Fig 5.12.

c. If the stream chosen by the user is BIPC:

1. We display List of Entrances and their details in user's selected stream.

```
                                      LIST OF ENTRANCES IN BIPC


      1.        * EAMCET
      2.        * NEET
      3.        * JIPMER
      4.        * AIIMS
      5.        * FOREIGN MEDICAL GRADUATES EXAMINATION
      6.        * WBJEE MEDICAL



            BRANCHES AVAILABLE AFTER 12TH IN BIPC:



      1.        * ALLOPATHIC
      2.        * AYURVEDHA
      3.        * B.PHARMA
      4.        * DENTAL
      5.        * HOMEOPATHY
      6.        * PHYSIOTHERAPY
      7.        * UNANI
      8.        * VETERNARY


      Press 1 for Displaying Prioritywise College Lists,Press 0 for Exit
```

Fig 5.13.

2. *We also display the branches available for BIPC students after 12th.*

3. *For knowing priority wise list of colleges, user needs to choose any entrance.*


```
            SELECT THE ENTRANCE TO SEE PRIORITYWISE COLLEGE LIST

1.EAMCET

2.NEET

3.AIIMS


ENTER YOUR CHOICE:
```

Fig 5.14.

4. *Branches will display on the screen and user must choose interested branch among them, then priority wise college list is displayed.*

Fig 5.15.

7. If the class completed by the user was Undergraduate.

   a. We suggest user, possibilities after under graduation (M.S, M.tech).

Fig 5.16.

   b. User needs to choose in which he is willing to go.

Fig 5.17.

   c. A simple test is conducted to view their performance in respected stream.

```
YOUR PERFORMANCE IN THE TEST


IN APTITUDE : you scored 8 out of 20

IN TECHNICAL : you scored 4 out of 20



press 1 to see the top M.tech colleges in india:
```
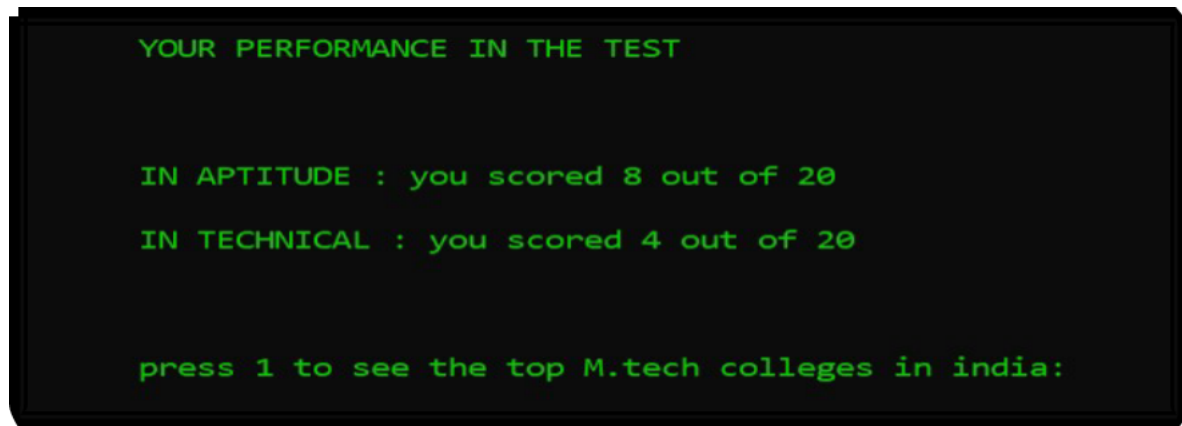
Fig 5.18.

d. User performance is displayed and user can know top colleges in the respected stream.

```
Top 8 M.S Colleges in THE WORLD


        1.MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT), US

        2.STANFORD UNIVERSITY, US

        3.HARVARD UNIVERSITY, US

        4.UNIVERSITY OF OXFORD, UK

        5.CALIFORNIA INSTITUTE OF TECHNOLOGY(CALTECH), US

        6.ETH ZURICH-SWISS FEDERAL INSTITUTE OF TECHNOLOGY, SWITZERLAND

        7.UNIVERSITY OF CAMBRIDGE, UK

        8.UCL(UNIVERSITY COLLOGE LONDON), UK

FOR MORE COLLEGE DETAILS ENTER RESPECTIVE NUMBER:
```

Fig 5.19.

e. College details can also be viewed at a time.
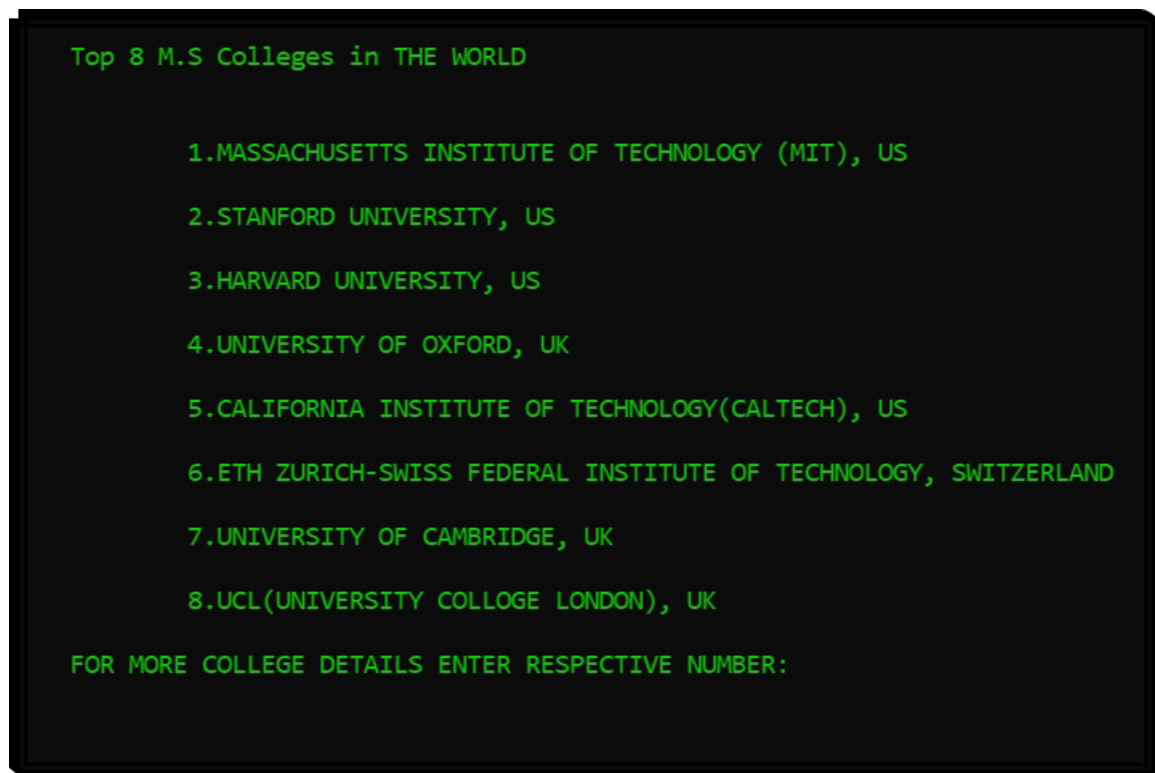


```
            COLLEGE NAME              : STANFORD UNIVERSITY, US

            WORLD RANKING              : 2

            ESTABLISHED                : 1959

            AVERAGE PACKAGE(per annum)  : 58lakhs

            COLLEGE FEES(per annum)    : 18lakh

press any number for displaying college details,0 for exit_
```

Fig 5.20.

5.3. ADMIN LOGIN
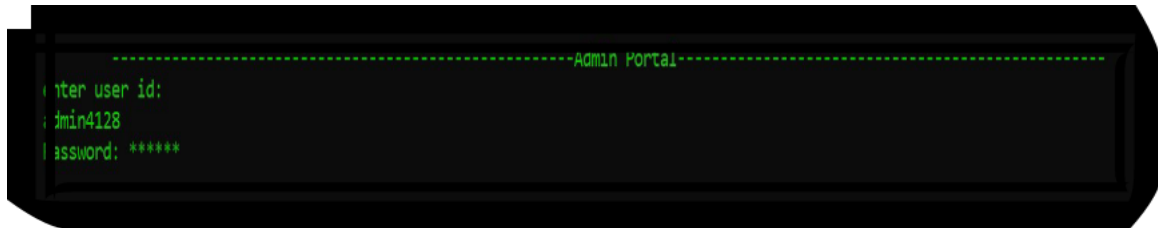
1. Admin must login by his unique username and password.

Fig 5.21.

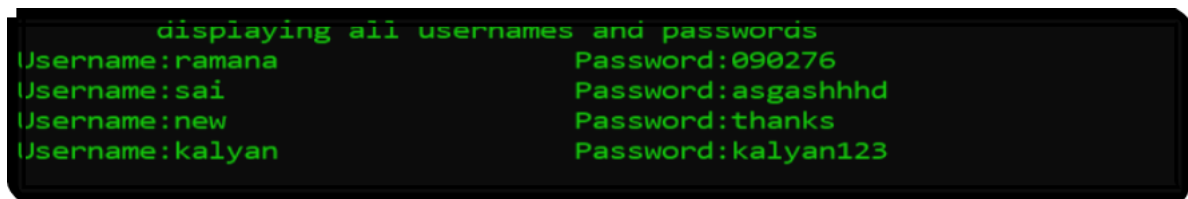2. Admin can access all details of registered users.

Fig 5.22.

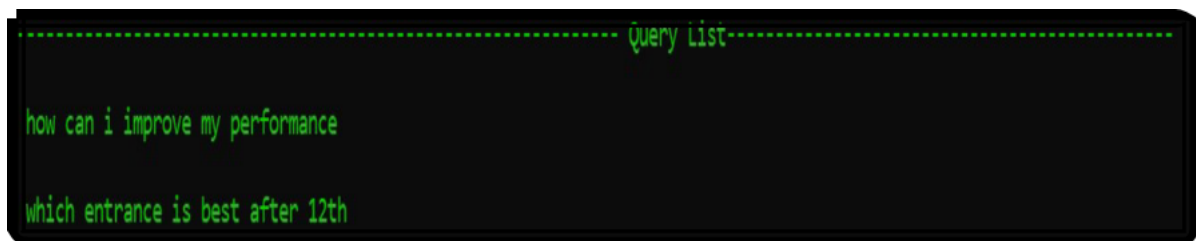3. Admin can view all the queries asked by the users.

Fig 5.23.

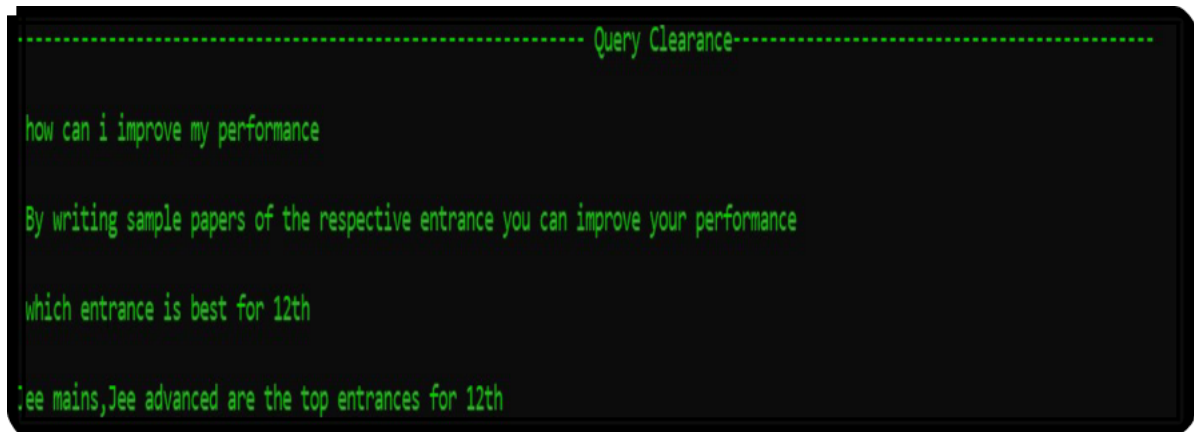*4. Admin can reply to the queries asked by the users.*

Fig 5.24.

4.4. ASK A QUERY

1.Users can ask queries and get answer for those queries.

Fig 5.25.

2. Queries asked are sent to admin and will be replied soon.

5. CONCLUSION AND FUTURE SCOPE

Students bright future is crucial for development of the country. This is why in this paper we have tried to present a model for guiding the student to their best appropriate pathway. So, they can excel in their professional career.

The opportunities provided by the technology is immense and many students can make use of this platform to choose their career more appropriate to their skills. Various challenges in manual career guidance system have been recognized to design effective online career guidance system. Implementing this system will help young ones to choose right career path that best suits them.

This system will fulfill the needs of fast and reliable access to information that is needed to make right career choice. This system provides associated benefits; making the student architect of their own career. There is considerable scope for improvement, and many changes can be made to enhance this project. These includes:

A smoother user interfaces. Adding the details of the colleges in each state and displaying them priority wise based on their selected stream and entrance. Adding the new feature "Giving Feedback" which makes us to still work more on this project to make it efficient. A permanent web portal that will allow a user to select the stream for the career, and a way to integrate the project with the HTML, CSS JAVASCRIPT.

BIBLIOGRAPHY

Text References:

1. Mastering C++ by K.R Venugopal.

2. C++: The Complete Reference, Fourth Edition by Herbert Schildt.

Web Resources:

1. www.tutorialspoint.com : It is used to get all definitions for the project related data.

2. www.quora.com : It is used to get the queries answered if any.

3. www.geeksforgeeks.com : Used to understand and implement few code snippets.