CSE - 100

Project Report

A Project About University Hunt Using Cpp Program

Bachelor of Science

in

Computer Science Engineering

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CERTIFICATE

This is to certify that the report entitled submitted by **Polash Islam** (19203031075), **Rahat Abir** (192030310105), **Samia prome sarker** (19203031081) , **Wahida Ashrafi Oishi** (19203031066) & **Md Emtiyaj Uddin Emon (19203031089) to the Atiya Masuda Siddika Bangladesh University of Business and Technology in partial fulfillment of the BSC. degree in Computer Science Engineering is a bonafide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.**

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DECLARATION

We hereby declare that the project report, submitted for partial fulfillment of the requirements for the award of degree of Bachelor of Science in Bangladesh University of Business and Technology (BUBT) is work done by us under supervision of Supervised by: Atiya Masuda Siddika .

This submission represents our ideas in our own words and where ideas or words of others have been included, we have adequately and accurately cited and referenced the original sources.

We also declare that I have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in my submission. We understand that any violation of the above will be a cause for disciplinary action by the institute and/or the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been obtained. This report has not been previously formed the basis for the award of any degree, diploma or similar title of any other University.

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Abstract

Working with big data faces different issues but the most important issues are the search,edit,research,save,crate processing time or power. We have tried to solve these problems with our project. We have distributed the database in different blocks and used hard disk storage of the system.UNIVERSITY HUNT SYSTEM deals with the maintenance of University data, records, instructions, and information within the University. UMS is an automation system, which is used to store the information, Add new information, and informa-tion of the university . Starting from registration of a new student in the system, it maintains all the details which information student need.The project deals with the retrieval of information through an offline based campus wide portal. It collects related information from all the departments of university and maintains files, which are used to generate reports in various forms to measure individual and overall performance of the students very fast and bug free. University hunt system.

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We take this opportunity to express my deepest sense of gratitude and sincere thanks to everyone who helped us to complete this work successfully. We express our sincere thanks to , Head of Department, Computer Science Engineering, Bangladesh University of Business and Technology for providing us with all the necessary facilities and support.

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Chapter 1

Introduction

1.1 Introduction

Computers have two main parts: hardware and software Like piano (hardware) and music (software) In this section: hardware The computer is an amazingly useful general-purpose technology, to the point that now cameras, phones, thermostats, and more are all now little computers. This section will introduce major parts and themes of how computer hardware works. ”Hardware” refers the physical parts of the computer, and ”software” refers to the code that runs on the computer.

University Hunt is a project which assists in keeping the record of all Universities. Different universities have different requirements for admission. It can handle all details about a University . University Hunt is a data system which assists students to find a university best suited in their lifestyle. The system also helps them find the best University for them based on GPA, location, Full cost and name. This system gives students more university options to choose from and helps them focus more on study then wasting time on researching about University. I was fortunate and blessed to get this lucky break to work with this appreciable project. My earnest thanks, gratitude and salutations to those respectable people from the deep down inside my heart to make a part of this appreciable project and give me such a nice opportunity.

1.2 Objective

The objective of my project is to provide valid and important information about universities in a short time. We have given many facilities for the students in this project to make it easier for them

1.login interface

i) search university

***Search by name**

***Search by location**

***Search Cost**

***Search Gpa**

ii) Add university information

***Ask for university information**

***Add information by user**

iii) Latest news about admission and university

iv) subject review

2. Admin panel

***Update news**

***Notification about added information**

***Add or approved added information**

***Subject review update**

3. Change password

1.3 Project Scope

The scope of project "University Hunt " is to develop by C++ program based software to support details like university name , location, faculties, extra facilities ,university rank, tuition fees e.t.c.

This software will be very useful for the students who are preparing for the admission exams..It will perform as a software that will show important university admission information. It will also save lots of time,as students are getting all the information they need about universities in a single software.

1.4 Objectives of This Project

In brief, this project's objective are the procedure of planning, communication with teammates, guidance amongst the team and reaching the goal no matter what the task, set scope, time and the budget is.

1.5 Our Contributions

The main purpose of our project is to assist in keeping the record of all Universities for ease of students. the low time and low cost over the project.The main objectives of our project is as following-

1.Language : We use c++ language which is very fast and simple and it is easy to use while finding any bug and fixing them.It is easy to add new features and delete any feature.

2.Hardware : For this project we are using a very low level and low cost computer and the program works very smoothly .So it's possible to use in any institution with ease.

3.If any student wants to use this software, they will face no barriers in their user experience.

1.6 Conclusions

As we already know the problems students go through during the university admission exam times, so we tried to create a program that will help the students with the information they need about universities within just a few clicks. Nothing is perfect in this world and our program also isn't perfect. While we did try to include all the information about a university there will be some information left out, because one can only obtain a certain amount of information about more than 100 universities.

Chapter 2

Existing Literature

2.1 Introduction

Every year during the months of September and October, the hot topic of the country is admission exam for universities. From every corner of the country every student who passed HSC and their family talks about only one thing admission exam. Thus, it is obvious that admission exam is a really important part of our countries education system. Therefore, we thought of making a program that will store all the information which are needed to apply for a university. In the internet there are many types of application and websites for university information. But most of those app and sites are based on international universities. The number of students face difficulty finding the correct information is huge. So, we think that this program will help out a lot of young students to worry less about finding a university and focused more on their studies for their upcoming admission war.

2.2 Working with the Existing system

In present, some works are done manually by editing the files required in the program and some works are done by the console with admin access in the program. Works done manually:

- **Adding new university information without a user input**
- **Adding a university name in the categorized section**
- **Editing the review section**
- **Editing a university information**
- **Adding more subjects for review section**

Works done by the console:

- **Watching if any used asked for any university information**
- **Watching if any used added any university information**
- **Approving new added university information**
- **Editing and approving university information**
- **Creating an account**
- **Changing the password of an existing account**

2.3 Benefits of University Hunt

This project is developed mainly to store information about different universities while also disturbing them correctly amongst students. This will make it easier for the students to collect data about universities they like, focus more on studies rather than wasting time on researching about universities they want to get admitted into, find subject reviews from elders to help them make a decision about their subject choice, just ask for a university information and get it added to the program by the admins and add university information by themselves to help out another fellow student. The program also focuses on less manual input. Thus, approving newly added information and editing to see if they are correct or on is done by the console to save time.

2.4 History of admission exams

In 1984. The choice of a university and a subject is that of HSC students. O A level students almost don't exist. There are only four general universities to choose from: Dhaka (1921), Rajshahi (1953), Chittagong (1966) and Jahangirnagar (1970). There are only two technical universities: BUET (1962) in Dhaka and Agricultural University (1961) in Mymensingh. Today's ubiquitous BBA programmers didn't exist. The alternative wasn't a private university. Private universities came later. The alternative was placement in what was then known as a Degree College. Today's Jagannath University in Dhaka was a degree college. These colleges were under Dhaka, Rajshahi and Chittagong universities. Today they're under the National University. It was a pre-digital era. Students needed to make at least two journeys. The first journey was to buy and submit admission forms. The second was to sit for the admission test. The situation was grave for South-West Bangladesh. If you were living in what was then Khulna Division, there was no university in your division. The admission test would be a mixture of short and essay questions. There was an uncertain waiting time before results were published. Scripts were manually checked. OMR technology didn't exist

in 1984. There was a marked oral exam. A viva board would test what students had learned in school and college. The admission tests would normally be held at separate times. If a student wanted to study for example, history or physics, they had only four chances in four admission tests. Probability of not getting your desired subject and university was high because universities were few. Today, HSC students can choose from 34 public universities and 77 private universities.

2.5 How University Hunt make a student's life a little easier

As I said before during the admission times the whole countries hot topic becomes admission news. Every family and friend, expect that the student who's giving the exam will get into a good reputed university. This puts a lot of pressure for the student. So, in order to not them family and friends hopes down a student mush set his target straight and focus on what he really wants. This program will make a student's life easier and help them chose their target much more clearly. This program will also help a student to save a huge amount of time and let them focus different things.

2.6 A Study of University Hunt Software

This report focuses on providing information to support the operation, management and decision-making functions of enterprises or organizations. In the face of huge amount of information, it is required to possess the university information management system to improve the efficiency of university management. Through this system, the university names, rank, VC name, faculties, cost, extra facilities can be realized, and thus the workload of finding data can be reduced. In this report, a typical university data system will be established to realize the systematization, standardization and automation of university data relationship. The software application unbelievably unravels and quickens the university hunt project with unique templates by providing the administration a secure database

system for storing, evaluating and publishing the University information's to a student.

Chapter 3

Proposed Model

We have studied C++language, now we come to the real life problems and see how we can solve them. Here we will use C++ Program to develop one real life project with a simple project that is University Hunt system with C++ language.

3.1 Introduction

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

3.1.1 Use Requirement

1.Technology is used to handle data so that data can be effeciently and received when needed.
2.Less time is consumed in this process.
3.User friendly system.

3.1.2 Hardware Requirements

Minimum requirements:

• Device

Laptop Or Desktop Computer.

• CPU

Intel® CoreTM i3 Processors or Equivalent 1 GHz or Faster.

• GPU Not necessary

• Hard Disk Drive

Minimum 200GB.(Bigger Hard disk Store Big data)

• Solid-State Drive

Not necessary.(SSD makes system faster)

• Random Access Memory (RAM)

6 GB or Higher 64-bit.

3.1.3 Software Requirement

1.Platform Used :

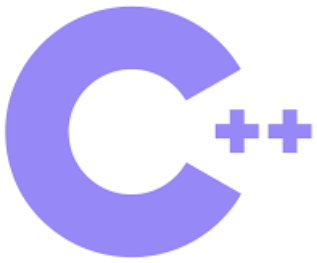
• Code::Blocks

Code::Blocks is a free, open-source cross-platform IDE that supports multiple compilers including GCC, Clang and Visual C++. It is developed in C++ using wxWidgets as the GUI toolkit. Using a plugin architecture, its capabilities and features are defined by the provided plugins. Currently, Code::Blocks is oriented towards C, C++, and Fortran. It has a custom build system and optional Make support. Code::Blocks is being developed for Windows and Linux (the latest macOS version is 13.12 released on 12/26/2013) and has been ported to FreeBSD, OpenBSD and Solaris.

After releasing two release candidate versions, 1.0rc1 on July 25, 2005 and 1.0rc2 on October 25, 2005, instead of making a final release, the project developers started adding many new features, with the final release being repeatedly postponed. Instead, there were nightly builds of the latest SVN version made available on a daily basis.[citation needed] The first stable release was on February 28, 2008, with the version number changed to 8.02. The versioning scheme was changed to that of Ubuntu, with the major and minor number representing the year and month of the release. Version 17.12 is the latest stable release; however,for the most up-to-date version the user can download the relatively stable nightly buildor download the source code from SVN. Jennic Limited distributes a version of Code::Blocks customized to work with its microcontrollers.[Wikipedia]

- **C++ Language**

C++ is a general-purpose programming language created by Bjarne Stroustrup as an extension of the C programming language, or "C with Classes". The language has expanded significantly over time, and modern C++ now has object-oriented, generic, and functional features in addition to facilities for low-level memory manipulation. It is almost always implemented as a compiled language, and many vendors provide C++ compilers, including the Free Software Foundation, LLVM, Microsoft, Intel, Oracle, and IBM, so it is available on many plat-



forms.

C++ was designed with an orientation toward system programming and em-

bedded, resource-constrained software and large systems, with performance, efficiency, and flexibility of use as its design highlights. C++ has also been found useful in many other contexts, with key strengths being software infrastructure and resource-constrained applications, including desktop applications, video games, servers (e.g. e-commerce, web search, or databases), and performance-critical applications (e.g. telephone switches or space probes).

• Operating System (OS)

Windows 10 : Windows 10 is a series of operating systems developed by Microsoft and released as part of its Windows NT family of operating systems. It is the successor to Windows 8.1, released nearly two years earlier, and was released to manufacturing on July 15, 2015, and broadly released for the general public on July 29, 2015.operating system ,Codeblocks(IDE),Latex(for Report),Git hub.

Chapter 4

Implementation of Our System

4.1 Introduction

•Explanation of Key functions ::

1.Member login :

In this use member can enter the user-name and password and access the main Form.

2.Admin login :

In this option admin can enter the user-name and password and access the main Form.

3.Create account :

New user can create new account for access this system by username and password to access this system .

4.Dashboard :

If member access this form using authentic log with Name and password then the member can show ::

4search University name

If members access the university they can find university by name,cost ,gpa and location .

•Search By name

•Search by location

•Search by Gpa

•Search by cost

5.Add university information

Members can add any information about the university and this information automatically updates in university information . Members can show their new information about the university.They also know information about specific university.

•Enter the university name you want to know.

•Add information yourself.

6.Latest News

If there are any new information or news about university like exam date , routine change, subject requirement , result publish, exam pattern etc can show by this section

7.subject Review

Students can know information about subjects .Students also can choose their subject bases on these reviews by elders of this subject.

•architecture

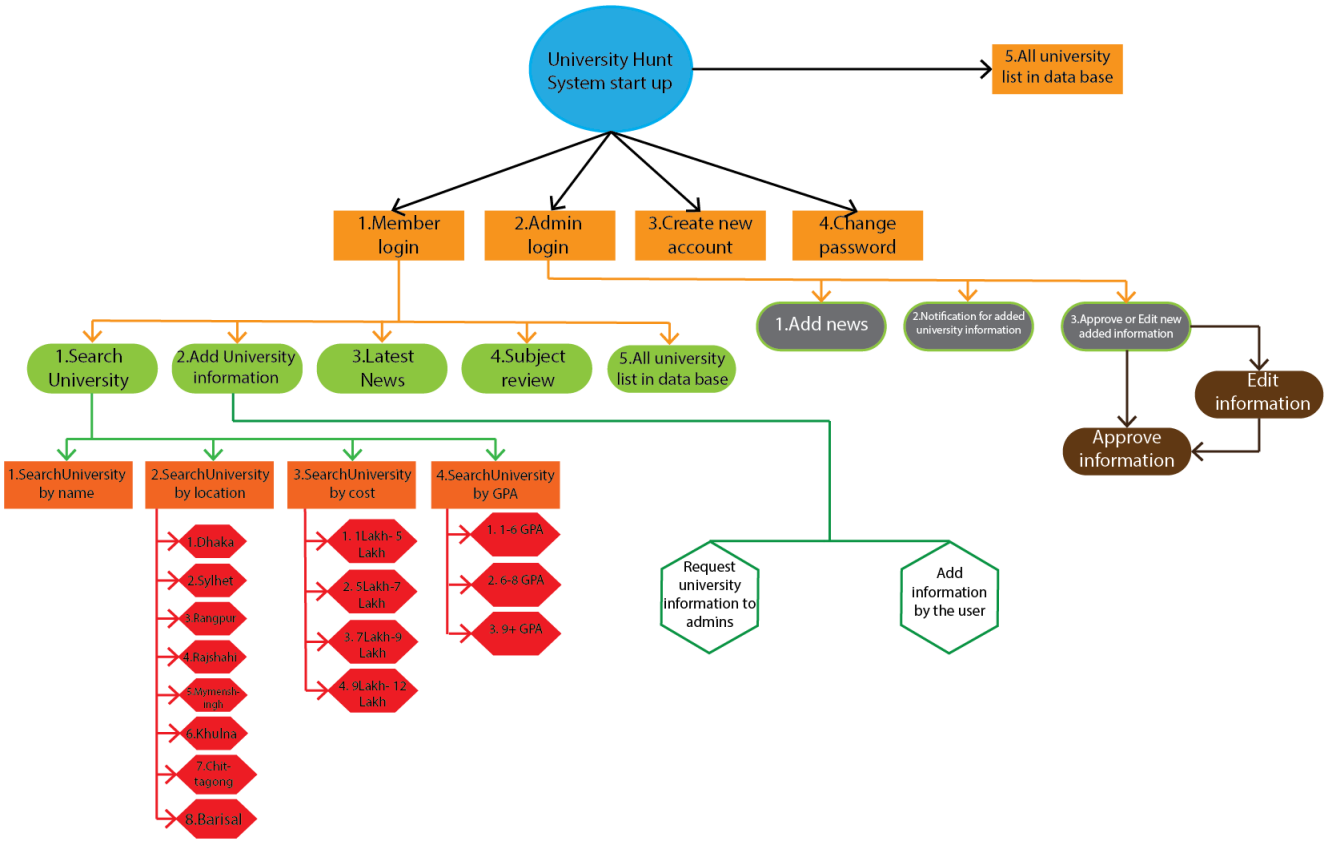
•civil enigineer

•CSE

•EEE

4.2 Overview

4.2.1 Project Diagram



Chapter 5

Experimental Results and Evaluation

5.1 Introduction

Here in result analysis section we attach some Important screenshots of our project.We attach the screenshots of our code and also attached the inputs outputs screenshots beside of this code,and then we analysis the result of our project.

5.2 Result Analysis

Figure 5.1: Login Interface output screenshot(14)

```
Current Time and Date: Wed Jul 14 00:18:42 2021

                1.Member login
                2.Admin login
                3.Create new account
                4.Change password

                5.All university list in the data base

Enter your choice: 3
Select a username: polash
Select a password: polash

                        --------------- account created successfully ----------------


                        ---------------------- please login -------------------------

Press any key to continue . . .
```

Figure 5.2: Create account output

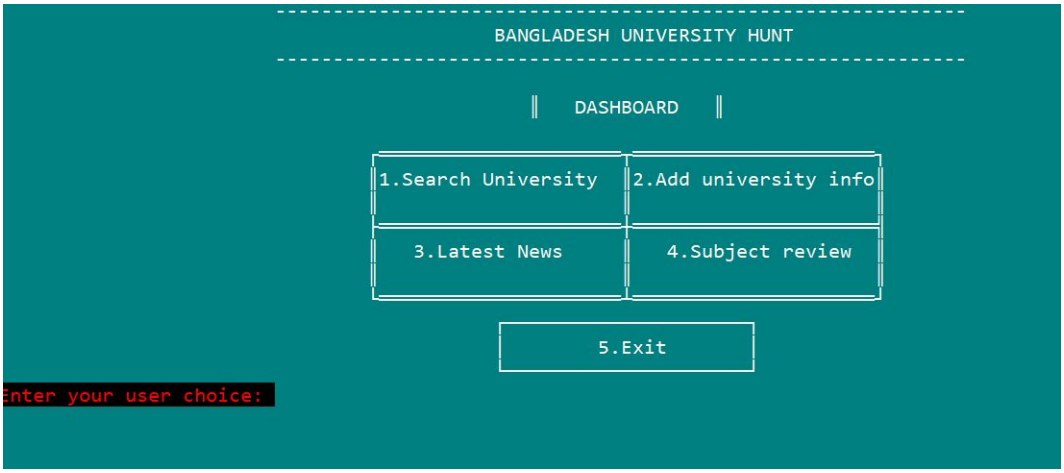


Figure 5.3: showing Dashboard output (15)

Figure 5.4: Search University screenshot

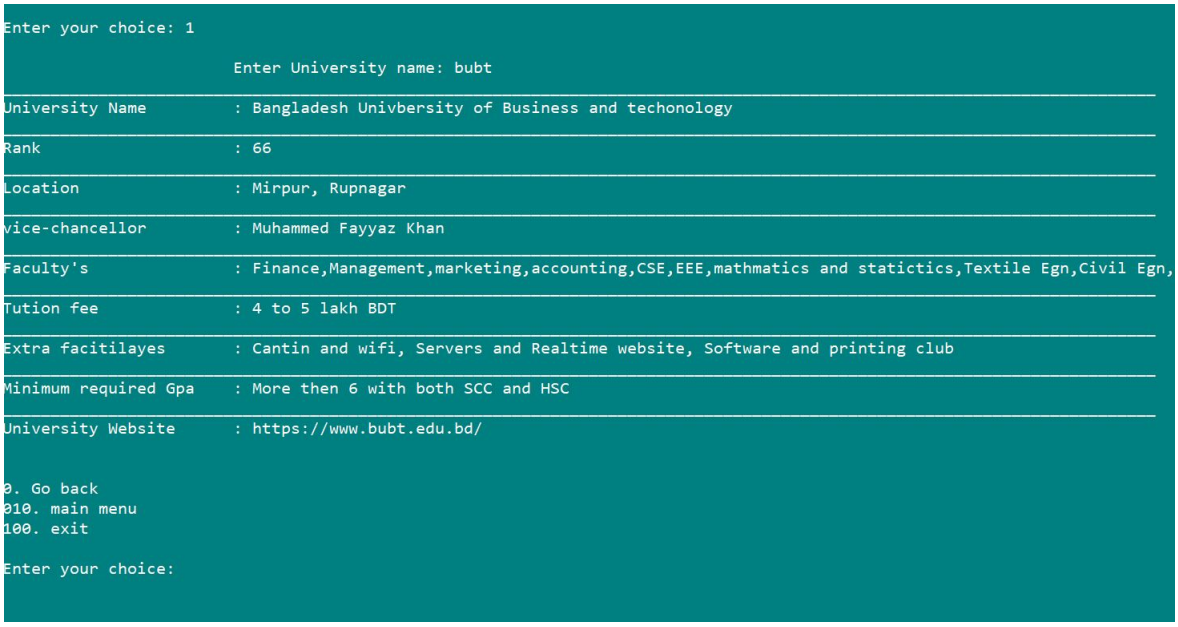


Figure 5.5: University information screenshot(16)

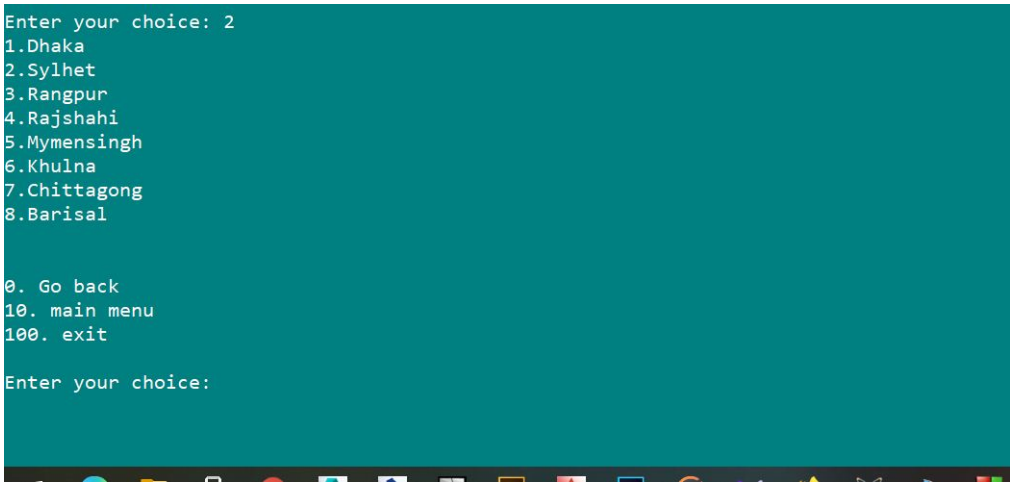


Figure 5.6: Seaching By location

Figure 5.7: Search By name (18)

```
Islamic University (IU)
Khulna University (KU)
Jagannath University (JNU)
Comilla University (CoU)
Jatiya Kabi Kazi Nazrul Islam University
Bangladesh University of Professionals (BUP)
Begum Rokeya University
Barisal University (BU)
Rabindra University
Sheikh Hasina University (SHU)
Bangabandhu Sheikh Mujibur Rahman University (BSMRU)
Shahjalal University of Science and Technology(SUST)
Bangladesh University of Engineering & Technology (BUET)
Khulna University of Engineering & Technology (KUET)
Chittagong University of Engineering & Technology (CUET)
Rajshahi University of Engineering & Technology (RUET)
Dhaka University of Engineering & Technology (DUET)
```

Figure 5.8: seaching by name

```
Enter your choice: 3

1.1 lakh- 5 lakh
2.5 lakh- 7 lakh
3.7 lakh - 9 lakh
4.9 - 12 lakh
Enter your choice: Enter your choice :
```

Figure 5.9: Universities by Cost option

```
Enter your choice: 4

                Select the gpa range you are in:-
                1. 1-6
                2. 6-8
                3. 9+



0. Go back
10. main menu
100. exit

Enter your choice: Enter your choice:
```

Figure 5.10: Search By GPA option(19)

```
Islamic University (IU)
Khulna University (KU)
Jagannath University (JNU)
Comilla University (CoU)
Jatiya Kabi Kazi Nazrul Islam University
Bangladesh University of Professionals (BUP)
Begum Rokeya University
Barisal University (BU)
Rabindra University
Sheikh Hasina University (SHU)
Bangabandhu Sheikh Mujibur Rahman University (BSMRU)
Shahjalal University of Science and Technology(SUST)
Bangladesh University of Engineering & Technology (BUET)
Khulna University of Engineering & Technology (KUET)
Chittagong University of Engineering & Technology (CUET)
Rajshahi University of Engineering & Technology (RUET)
Dhaka University of Engineering & Technology (DUET)
```

Figure 5.11: search by Gpa screenshot

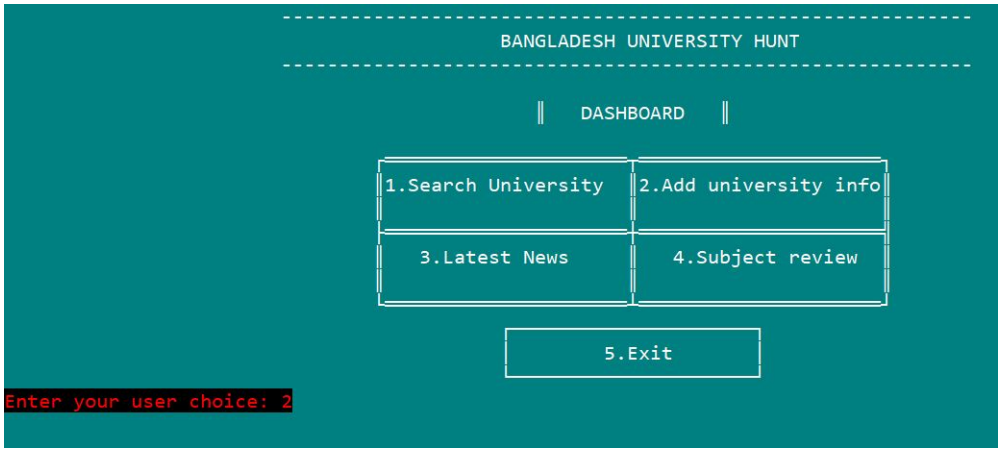


Figure 5.12: Showing option display

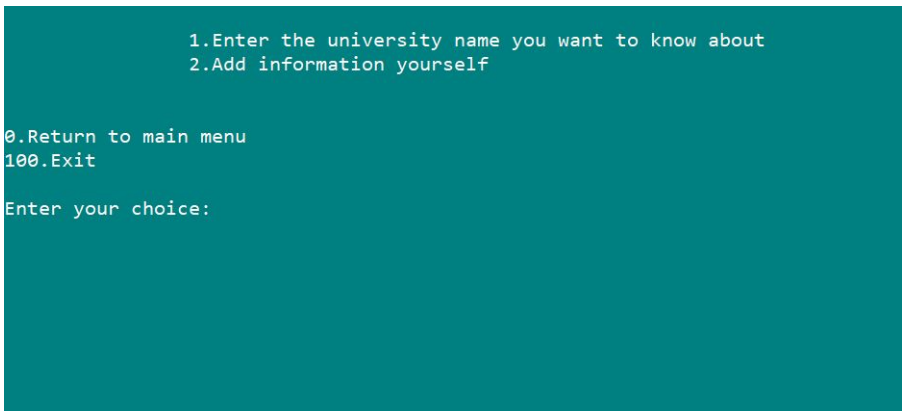


Figure 5.13: Add university Info output(20)

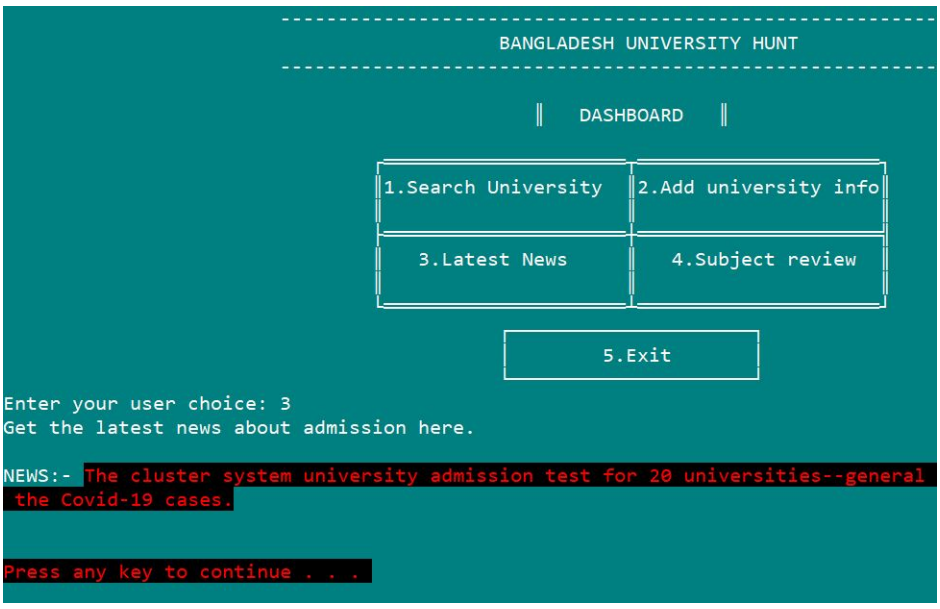


Figure 5.14: Subject Review screenshot(21)

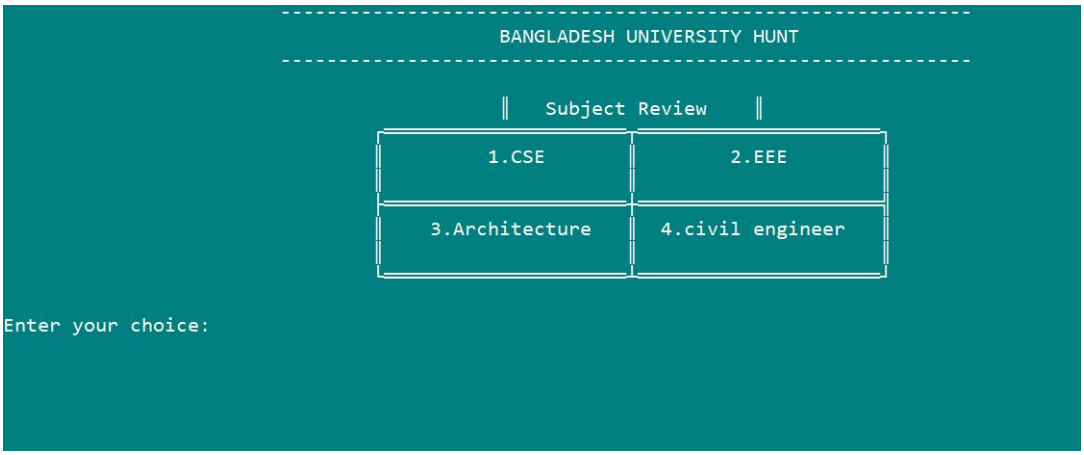


Figure 5.15: showing subject

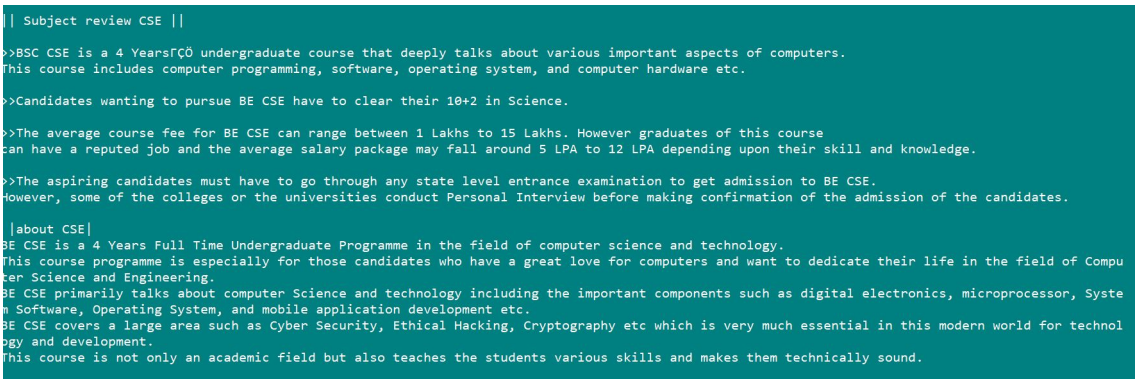


Figure 5.16: information about Cse subject output

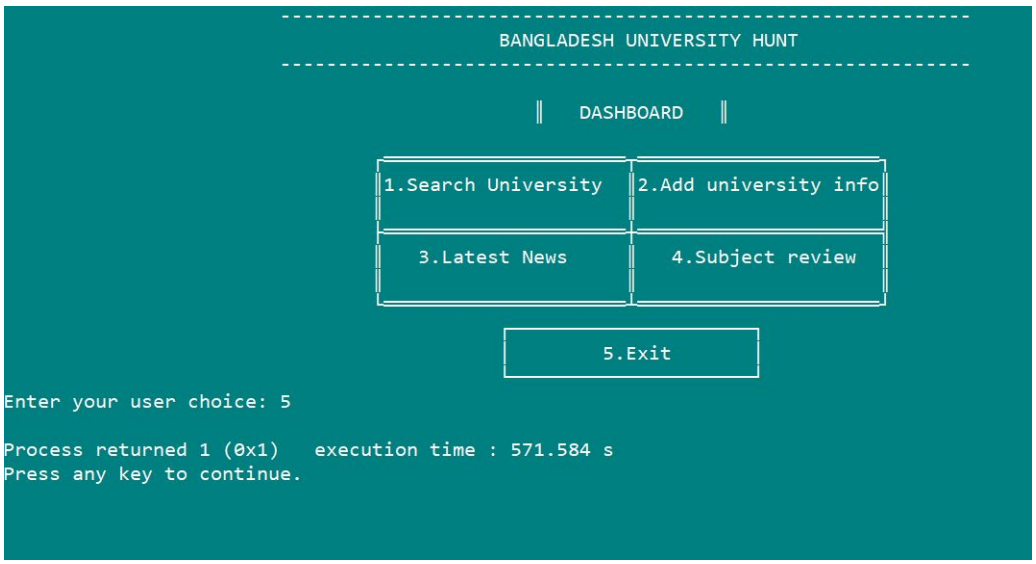


Figure 5.17: Exit option display

Chapter 6

Code Implement

```
int main()
{
    nametemplate();
    getCurrentTime();
    int choice;
    cout<<"\t\t1.Member login\n\t\t2.Admin login\n\t\t3.Create new account\n\t\t4.Change password";
    cout<<"\n\n\t\t5.All university list in the data base\n";

cout<<endl<<"Enter your choice: ";

    cin>>choice;
    if(choice == 1)
    {
        bool status=login();
        if(!status)
        {
            cout<<"Username or password doesnt match the data. Please try again"<<endl;
            main();
        }
        else
        {
            printf("\n\t\t\t---------------------- Login successfully ----------------\n\n");
            first_menu();
        }
```

Figure 6.1: Main Funtion 1

```
}
if(choice == 2)
{
    Admin_login();
}
if(choice == 3)
{
    int restart=newaccount();
    if(restart==1)
    {
        main();
    }
}
if(choice==4)
{
    change_password();
}
if(choice==5)
{
    string ch;
    fstream my_file;
    my_file.open("C:\\project university hunt txt files\\University all list\\all list.txt", ios::in);
    if (!my_file)
    {
```

Figure 6.2: Main Funtion 2

```
        my_file.open("C:\\project university hunt txt files\\University all list\\all list.txt", ios::in);
        if (!my_file)
        {
            cout << "File missing from database";
        }
        else
        {
            while(getline(my_file,ch))
            {
                cout<<ch<<endl;
            }
        }
        my_file.close();
        SetConsoleTextAttribute(h,FOREGROUND_RED | FOREGROUND_INTENSITY);
        cout<<endl<<"Please create a account and log in to view details and get access to more freature's like"<<endl;
        cout<<"Subject review, university details and more easy ways to find the university you need for your future."<<endl<<endl;
        system("pause");
        system("cls");
        main();
    }
    if(choice!=1 && choice!=2 && choice!=3 && choice!=4)
    {
        cout<<"Wrong input\nPlease restart the program."<<endl;
```

Figure 6.3: Main Funtion 3

```
int newaccount()
{
    string username, password;

    cout<< "Select a username: ";
    cin>> username;
    cout<<"Select a password: ";
    cin>> password;

    ofstream file;
    file.open("C:\\project university hunt txt files\\"+username+".txt");//jekhane file
    file<<username<<endl<<password;
    file.close();

    cout<<"\n\t\t\t--------------- account created successfully ----------------\n\n";
    cout<<"\n\t\t\t---------------------- please login -------------------------\n\n";
    system("pause");

    return 1;
}
```

Figure 6.4: Account Create

```
bool login()
{
    string username, password, un,pw;

    cout<<"Enter your username: ";
    cin>>username;
    cout<<"Enter your Password: ";
    cin>>password;

    ifstream read("C:\\project university hunt txt files\\" + username +".txt");

    getline(read, un);
    getline(read,pw);

    if(un== username && pw== password)
    {
        return true;
    }
    else
    {
        return false;
    }
```

Figure 6.5: Admin Login

```
void change_password()
{
    string username, password,npassword, un,pw;

    cout<<"Enter your username: ";
    cin>>username;
    cout<<"Enter your current Password: ";
    cin>>password;

    ifstream read("C:\\project university hunt txt files\\" + username +".txt");

    getline(read, un);
    getline(read,pw);

    if(un== username && pw== password)
    {
        cout<<"Enter your new password: ";
        cin>>npassword;
        ofstream file;
        file.open("C:\\project university hunt txt files\\" + username +".txt");
        file<< username<<endl<<npassword;
        file.close();
        cout<<"\n\n\tPassword has been changed.";
```

Figure 6.6: Password Change

```
        file.open("C:\\project university hunt txt files\\" + username +".txt");
        file<< username<<endl<<npassword;
        file.close();
        cout<<"\n\n\tPassword has been changed.";

    }
    else
    {
        cout<<"Current password does not match.\n\n1.Please try again.\nor \n0.exit";
        int n;
        cin>>n;
        if(n==1)
        {
        change_password();
        }
        if(n==0)
        {
            exit(1);
        }
    }
}
```

Figure 6.7: Password Change

```
void news()
{
    string ch;
    cout<<"Get the latest news about admission here."<<endl<<endl<<"NEWS:- ";
    fstream my_file;
    SetConsoleTextAttribute(h,FOREGROUND_RED | FOREGROUND_INTENSITY);
    my_file.open("C:\\project university hunt txt files\\news\\main news.txt", ios::in);
    if (!my_file)
    {
        cout << "File missing from database";
    }
    else
    {
        while(getline(my_file,ch))
        {
            cout<<ch<<endl;
        }
    }
    my_file.close();
    cout<<endl<<endl;
    system("pause");
    system("COLOR 3F");
```

Figure 6.8: Showing News

```
void getCurrentTime()
{
    system("COLOR CE");
    time_t rawtime;
    struct tm * timeinfo;

    time(&rawtime);
    timeinfo = localtime(&rawtime);
    printf("Current Time and Date: %s\n", asctime(timeinfo));
}
```

Figure 6.9: Showing Current Time

```
void ask_university()
{
    string u_name,notes,ufname;
    cout<<"Enter a your username name :";
    cin.ignore();
    getline(cin,ufname);
    cout<<"Enter the University name you want to know about: ";
    cin.ignore();
    getline(cin,u_name);
    cout<<"Add a massage for admins regarding, the information you need about this university: ";
    getline(cin,notes);

    ofstream file;
    file.open("C:\\project university hunt txt files\\Requested university\\"+ufname+".txt");
    file<< u_name <<endl<<notes;
    file.close();
    cout<<endl<<"The information you asked has been sent to the admin please wait for the update"<<endl;

    system("pause");
    char c;
    ifstream read("C:\\project university hunt txt files\\counter.txt");
    {
        read>>c;
```

Figure 6.10: Ask University 1

```
        ifstream read("C:\\project university hunt txt files\\counter.txt");
        {
            read>>c;
        }
        read.close();
        int k=(int)c-48;
        k++;
        ofstream file2;
        file2.open("C:\\project university hunt txt files\\counter.txt");
        file2<<k;
        file2.close();
        cout<<endl<<endl<<"1.main menu \n2.Exit\nEnter your choice: ";
        int choice;
        cin>>choice;
        if(choice==2)
        {
            exit(1);
        }
        if(choice==1)
        {
            first_menu();
        }
    }
```

Figure 6.11: Ask University 2

```
void find_university()
{
    system("cls");
    nametemplate();
    int choice;

cout <<"\t\t\t\t\t   "<< char(186) << "  Search University  " << char(186) << endl;

cout <<"\t\t\t\t"<< char(218);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(194);
cout <<"\t\t\t\t"<< char(186) << "1.Search by name     " << char(186) << "2.Search by location "
cout <<"\t\t\t\t"<< char(186) << "                    " << char(186) << "                       "
cout <<"\t\t\t\t"<< char(195);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(197);
cout <<"\t\t\t\t"<< char(186) << "3.Search by cost     " << char(186) << "4.Search by GPA      "
cout <<"\t\t\t\t"<< char(186) << "                    " << char(186) << "                       "
cout <<"\t\t\t\t"<< char(192);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(193);

cout <<"\t\t\t\t    "<< char(218);      for(int i=0; i<32; i++){cout << char(196);}      cout <<
cout <<"\t\t\t\t    "<< char(179) << "5.All University in the database" << char(179) << endl;
cout <<"\t\t\t\t    "<< char(192);      for(int i=0; i<32; i++){cout << char(196);}      cout <<

    cout<<endl<<endl<<"0. Go back"<<endl<<"10. main menu"<<endl<<"100. exit";
    cout<<endl<<endl<<"Enter your choice: ";
```

Figure 6.12: Find University 1

```
:< char(194);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(191) << endl;
 by location " << char(186) << endl;
             " << char(186) << endl;
:< char(197);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(185) << endl;
 by GPA      " << char(186) << endl;
             " << char(186) << endl;
:< char(193);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(217) << endl;

       cout << char(191) << endl;
) << endl;
       cout << char(217) << endl;
```

Figure 6.13: Find University 2

```
    cout<<endl<<endl<<"0. Go back"<<endl<<"10. main menu"<<endl<<"100. exit";
    cout<<endl<<endl<<"Enter your choice: ";
    cin>>choice;
    if(choice==1)
    {
        searchbyname();
    }
    if(choice==2)
    {
        searchbylocation();
    }

    if(choice==3)
    {
        searchbycost();
    }

    if(choice==4)
    {
        searchbygpa();
    }
    if(choice==5)
    {
```

Figure 6.14: Find University 3

```
}
if(choice==5)
{
    string name;
    cout<<"Here are all the University we have in our database right now: "<<endl;
    ifstream read("C:\\project university hunt txt files\\University all list\\all list.txt");
    while(getline(read,name))
    {
        cout<<name<<endl;
    }
    read.close();
    cout<<endl<<endl<<"1.View details"<<endl<<endl<<"0. Go back"<<endl<<"010. main menu"<<endl<<"100. exit"<<endl<<endl<<"Enter your choice:
    int choice;
    cin>>choice;
    if(choice==1)
    {
        searchbyname();
    }
    switch(choice)
    {

    case 0:
        find_university();
        break;
```

Figure 6.15: Find University 4

```
add_university()
{

    system("cls");
    cout<<"\n\t\t1.Enter the university name you want to know about\n
    cout<<"Enter your choice: ";
    int choice;
    cin>>choice;
    switch(choice)
    {

    case 1:
        ask_university();
        break;
    case 2:
        addinformation();
        break;
    case 0:
        first_menu();
        break;
    case 100:
        exit(1);
        break;
```

Figure 6.16: Add University

```
void searchbyname()
{
    string ser;
    string data;
    cout<<endl<<"\t\t\t";
    cout<<"Enter University name: ";
    cin.ignore();
    getline(cin,ser);
    std::for_each(ser.begin(), ser.end(), [](char & c)
    {
        c = ::tolower(c);
    });
    if(ser=="bubt")
    {
        ser="bangladesh university of business and technology";
    }
    if(ser=="du")
    {
        ser="dhaka university";
    }
    if(ser=="ru")
    {
        ser="rajshahi university";
```

Figure 6.17: Search by name

```
void searchbygpa()
{
    int choice;
    string ch;
    cout<<"\n\t\tSelect the gpa range you are in:- ";
    cout<<"\n\t\t1. 1-6 \n\t\t2. 6-8 \n\t\t3. 9+\n\n";
    cout<<endl<<endl<<"0. Go back"<<endl<<"10. main menu"<<endl<<"100. exit"<<endl<<endl<<"Enter your choice: ";
    cout<<"Enter your choice: ";
    cin>>choice;
    cout<<endl;
    if(choice==1)
    {
    fstream my_file;
        my_file.open("C:\\project university hunt txt files\\Search files\\gpa\\1-6.txt", ios::in);
        if (!my_file)
        {
            cout << "File missing from database";
        }
        else
        {
            while(getline(my_file,ch))
            {
                cout<<"                                                                                "<<
```

Figure 6.18: Search by gpa

```
void searchbylocation()
{

    cout<<"1.Dhaka"<<endl<<"2.Sylhet"<<endl<<"3.Rangpur"<<endl<<"4.Rajshahi"<<endl<<"5.Mymensingh"<<endl<<"6.Khulna"<<endl
    cout<<"7.Chittagong"<<endl<<"8.Barisal"<<endl;
    cout<<endl<<endl<<"0. Go back"<<endl<<"10. main menu"<<endl<<"100. exit"<<endl<<endl<<"Enter your choice: ";
    int choice;
    string data;
    cin>>choice;
    if(choice==1)
    {
        fstream my_file;
        my_file.open("C:\\project university hunt txt files\\Search files\\Location\\dhaka.txt", ios::in);
        if (!my_file)
        {
            cout << "File missing from database";
        }
        else
        {
            while(getline(my_file,data))
            {
                cout<<"                                                                                "<<
            "                                                                                "<<endl;
                cout<<data<<endl;
```

Figure 6.19: Search by location

```
void searchbycost()
{
    cout<<"\n1.1 lakh- 5 lakh"<<endl<<"2.5 lakh- 7 lakh"<<endl<<"3.7 lakh - 9 lakh\n";
    cout<<"4.9 - 12 lakh"<<endl;
    cout<<"Enter your choice: ";
    cout<<"Enter your choice : ";
    int choice;
    string ch;
    cin>>choice;
        if(choice==1)
        {
            fstream my_file;
        my_file.open("C:\\project university hunt txt files\\Search files\\cost\\1-5.txt", ios::in);
        if (!my_file)
        {
            cout << "File missing from database";
        }
        else
        {
            while(getline(my_file,ch))
            {
                cout<<"                                                                                "<<
            "                                                                                "<<endl;
                cout<<ch<<endl;
```

Figure 6.20: Search by cost

```
void addinformation()
{
    string u_name,rank1,location,vc,ft,tution,gpa,ex,name;
    cout<<endl<<"University name: ";
    cin.ignore();
    getline(cin,u_name);
    cout<<"\nRank: ";
    getline(cin,rank1);
    cout<<"\nLocation: ";
    getline(cin,location);
    cout<<"\nName of the VC: ";
    getline(cin,vc);
    cout<<"\nFaculty: ";
    getline(cin,ft);
    cout<<"\nEstimated tution fee: ";
    getline(cin,tution);
    cout<<"\nEstimated minimum gpa: ";
    getline(cin,gpa);
    cout<<"\nExtra facilities: ";
    getline(cin,ex);
    cout<<"Your name: ";
    cin>>name;

    ofstream file;
```

Figure 6.21: Add new university information

```
cin>>name;

ofstream file;
file.open("C:\\project university hunt txt files\\New added information\\"+name+".txt");
file<< u_name<<endl<<rank1<<endl<<location<<endl<<vc<<endl<<ft<<endl<<tution<<endl<<gpa<<endl<<ex<<endl<<endl<<"by : "<<na
file.close();

system("pause");
char c;
ifstream read("C:\\project university hunt txt files\\counter2.txt");
{
    read>>c;
}
read.close();
int k=(int)c-48;
k++;
ofstream file2;
file2.open("C:\\project university hunt txt files\\counter2.txt");
file2<<k;
file2.close();
fstream file3;
file3.open("C:\\project university hunt txt files\\approve\\approve names",ios::in | ios::out | ios::app);
file3<<endl<<name;
file3.close();
```

Figure 6.22: Add new university information

```
    k++;
    ofstream file2;
    file2.open("C:\\project university hunt txt files\\counter2.txt");
    file2<<k;
    file2.close();
    fstream file3;
    file3.open("C:\\project university hunt txt files\\approve\\approve names",ios::in | ios::out | ios::app);
    file3<<endl<<name;
    file3.close();
    cout<<endl<<endl<<"1.main menu \n2.Exit\nEnter your choice: ";
    int choice;
    cin>>choice;
    if(choice==2)
    {
        exit(1);
    }
    if(choice==1)
    {
        first_menu();
    }
}
```

Figure 6.23: Add new university information

```
void subject_review()
{
    system("cls");
    nametemplate();
cout <<"\t\t\t\t\t   "<< char(186) << "   Subject Review    " << char(186) << endl;

cout <<"\t\t\t\t"<< char(218);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(194);
cout <<"\t\t\t\t"<< char(186) << "         1.CSE       " << char(186) << "        2.EEE        "
cout <<"\t\t\t\t"<< char(186) << "                     " << char(186) << "                     "
cout <<"\t\t\t\t"<< char(195);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(197);
cout <<"\t\t\t\t"<< char(186) << "    3.Architecture   " << char(186) << "  4.civil engineer   "
cout <<"\t\t\t\t"<< char(186) << "                     " << char(186) << "                     "
cout <<"\t\t\t\t"<< char(192);  for(int i=0; i<21; i++){cout << char(205);}  cout << char(193);

    cout<<endl<<"Enter your choice: ";
    int choice;
    string ch;
    cin>>choice;
    cout<<endl<<endl;
    if(choice==1)
    {
        fstream my_file;
        my_file.open("C:\\project university hunt txt files\\subject review\\cse.txt", ios::in);
        if (!my_file)
```

Figure 6.24: Subject review

Chapter 7

Testing

testing objectives: Testing is mainly done for rectifying the error from the program that is design for particular problem.

•Testing is a process of executing a program with the intent of finding an error.

•A good test case is one that has a high probability of finding an as-yet UN discovered error.

•A successful test is one that uncovers an as-yet undiscovered error.

•Exhaustive testing is not possible.

•All tests should be traceable to customer requirement.

•Testing Principle: Before doing the testing,some point kept in mind.

•Tests should be planned long before testing begins.

•Testing should be begun in "small" and progress toward large.

7.1 testing and Debugging:

After programming the program has many logical errors we test our system program our system does not run successfully and does not achieve the user's requirement. If the user requirement cannot be fulfilled, we use the debugging tools in the project and debug our project in statements by statements and found error and correct the testing process focusing on logic internals of the software, ensuring that all statements have been tested.

7.2 Function Testing:

System design may have so many functions. Each program has been defined into number of functions. Each function has its own task. We can each function to perform an accurate result. We must debug each function. Function is a block of code that performs a particular task, returns a particular value.

7.3 Structural Testing

Each program has a structure, and contains the function, variable, controls, statement, decision-making loops. We can test program structure these are defined properly in our program. So,the programmerset the structure of the program.

Condition Testing: Condition Testing is a test case design method that exercises the logical conditions contained in a program module.

Loop Testing: Loops are mainly used in all the module of the project, there are different type of loops in the project that I use.

Simple loops: In the simple loop in which the statement is executed inside the single loop.

Concatenated loops: Concatenated loops can be tested using the approach defined for simple loops, if each of the loops is independent of the other. However, if two loops are concatenated and the loop counter for loop 1 is used as the initial value for loop 2 then the loop are not independent. When the loops are not independent, the approach applied to nested loops is recommended.

Chapter 8

Conclusion

A good university information management program ensures accurate, fast and useful information. Our project University Hunt full fills all of those critries. The main objective of our project was to give the user a easy to use, good looking, informative and user friendly experience. While we didn't have enough time to implement all our ideas, we did tried to do our best. We made sure the university information we put in our database is correct and from the main website of the university. we carefully categorized all the university and put them in a way that made it easy to find and get access to more information on the categorized universities. We hope to continue our project and keep making it better everyday. In the end we hope that our program gives the students the information they want and helps them focus more on their study rather than wasting time on researching information about favourite universitie.

References

Here are some website links which we used for our project.

- **https://www.geeksforgeeks.org/**
- **https://github.com/**
- **https://www.codewithc.com/**
- **https://code-projects.org**
- **https://www.wikipedia.org/**
- **https://www.google.com/**
- **https://www.geeksforgeeks.org**
- **https://www.lovelycoding.org/**
- **http://edujournal.in/**
- **https://www.w3schools.com/**