COMPUTER SCIENCE PROJECT

CAB SERVICES

NAME: ARAVIND.R

CLASS & SECTION: XII-E

Chettinad Vidyashram

(Affiliated to Central Board of Secondary Education, New Delhi)
(Chettinad House, R.A.Puram, Chennai – 600 028)

COMPUTER SCIENCE

Certified to be the Bonafide Record of work done by

_____ of Std XII Sec ____

in the Computer Science Lab of the CHETTINAD VIDYASHRAM, CHENNAI, during the year 2019 – 2020.

Date: Teacher-in-charge

REGISTER NO. _____

Submitted for All India Senior Secondary Practical Examination in Computer Science held on _____at Chettinad Vidyashram, Chennai – 600 028.

Principal Internal Examiner External Examiner

ACKNOWLEDGEMENT

I would like to express my sincere thanks to Meena Aunty, Principal Mrs. S.Amudhalakshmi for their encouragement and support to work on this Project. I am grateful to my computer science teacher Mr. Thomas Sathiaraj and to the computer science department for the constant guidance and support to complete the project.

CONTENTS

OVERVIEW OF C++

C++ is a programming language that was developed at AT&T Bell Laboratories in the early 1980s by Bjarne Stroustrup. He found 'C' lacking for simulations and decided to extend the language by adding features from his favourite language, *Simula 67.* The name C++ was coined by Rick Mascitti where "++" is the C increment operator. Ever since its birth, C++ evolved to cope with problems encountered by users, and through discussions at AT&T.

C++ is a statically typed, compiled, general-purpose, case-sensitive, free-form programming language that supports procedural, object-oriented, and generic programming. C++ is regarded as a middle-level language, as it comprises a combination of both high-level and low-level language features.

C++ is used by hundreds of thousands of programmers in essentially every application domain.

C++ is being highly used to write device drivers and other software that rely on direct manipulation of hardware under real time constraints.

C++ is widely used for teaching and research because it is clean enough for successful teaching of basic concepts.

Anyone who has used either an Apple Macintosh or a PC running Windows has indirectly used C++ because the primary user interfaces of these systems are written in C++.

As mentioned before, C++ is one of the most widely used programming languages. It has its presence in almost every area of software development.

- **Application Software Development** - C++ programming has been used in developing almost all the major Operating Systems like Windows, Mac OSX and Linux. Apart from the operating systems, the core part of many browsers like Mozilla Firefox and Chrome have been written using C++. C++ also has been used in developing the most popular database system called MySQL.
- **Programming Languages Development** - C++ has been used extensively in developing new programming languages like C#, Java, JavaScript, Perl, UNIX's C Shell, PHP and Python, and Verilog etc.
- **Computation Programming** - C++ is the best friend of scientists because of fast speed and computational efficiencies.
- **Games Development** - C++ is extremely fast which allows programmers to do procedural programming for CPU intensive functions and provides greater control over hardware, because of which it has been widely used in development of gaming engines.
- **Embedded System** - C++ is being heavily used in developing Medical and Engineering Applications like software for MRI machines, high-end CAD/CAM systems etc.

This list goes on, there are various areas where software developers are happily using C++ to provide great software.

OBJECT - ORIENTED PROGRAMMING

Object-oriented programming – As the name suggests uses objects in programming. Object-oriented programming aims to implement real-world entities like inheritance, hiding, polymorphism, etc in programming. The main aim of OOP is to bind together the data and the functions that operate on them so that no other part of the code can access this data except that function.

Class: The building block of C++ that leads to Object Oriented programming is a Class. It is a user defined data type, which holds its own data members and member functions, which can be accessed and used by creating an instance of that class. A class is like a blueprint for an object.
For Example: Consider the Class of Cars. There may be many cars with different names and brand but all of them will share some common properties like all of them will have 4 wheels, Speed Limit, Mileage range etc. So here, Car is the class and wheels, speed limits, mileage are their properties.

- A Class is a user-defined data-type which has data members and member functions.
- Data members are the data variables and member functions are the functions used to manipulate these variables and together these data members and member functions define the properties and behaviour of the objects in a Class.
- In the above example of class Car, the data member will be speed limit, mileage etc and member functions can apply brakes, increase speed etc.

We can say that a class in C++ is a blue-print representing a group of objects which shares some common properties and behaviours.
Object: An Object is an identifiable entity with some characteristics and behaviour. An Object is an instance of a Class. When a class is defined, no

memory is allocated but when it is instantiated (i.e. an object is created) memory is allocated.
Object take up space in memory and have an associated address like a record in pascal or structure or union in C.

When a program is executed the objects interact by sending messages to one another.

Each object contains data and code to manipulate the data. Objects can interact without having to know details of each other's data or code, it is sufficient to know the type of message accepted and type of response returned by the objects.

OOP CONCEPTS

C++ very well supports object – oriented programming approach by implementing the following OOP concepts:

1. **Data Abstraction:** It refers to showing only essential information to the outside world without including the background details or explanations. It can be implemented by declaring data members under private and protected sections of a class.
2. **Data Encapsulation:** It refers to wrapping up of data and its associated functions into a single unit. It can be implemented by declaring a class and its members.
3. **Modularity:** It is the act of partitioning a program into well – defined individual components where each component has a specific task. It can be implemented by declaring member functions of a class.

4. **Inheritance:** It is the mechanism in which a class acquires the properties and behaviour of another class. A new class can be derived from another class and the new class can access the properties of the old class.
5. **Polymorphism:** It is the ability for a message or data to be processed in more than one form. The same message is passed to the objects of different classes and each object responds differently depending on the member functions of the class. It can be implemented by function overloading, operator overloading and constructor overloading.

PROJECT DESCRIPTION

VELOCITY CABS – The new generation punctual and hassle – free cab service is here!!!

A cab service which is reliable, efficient, convenient and transparent!

It has the unique distinction of being the first cab company in India to introduce air taxis which prove to be a great alternative and advantage over city roads choked with traffic.

All cab services at feasible costs, affordable for people from all walks of life.

- 25 million+ rides served every year
- 100+ cities serviced by Velocity Cabs to get to your destination on time, every time
- 4,000+ employees work tirelessly to provide you with the best in technology and service
- 1 billion+ happy and satisfied customers

So what are you waiting for? Indulge in a comfy and opulent travel experience offered by the four – time award winning cab service – **VELOCITY CABS**!

FUNCTIONS USED

The following functions were used in the project:

1. void CALCULATE();

   This function is used to calculate the fare of the ride based on the distance and the type of ride selected by the customer.

2. void MODIFY();

   This function is used to modify the user's account details such as username, mobile number, e – mail id and password.

3. void CREATE();

   This function is used to create a new account for a new user.

4. void RIDE();

   This function is used to display the ride details of the customer like pickup and drop location, distance, fare, vehicle and vehicle no. etc.

5. void DISPACCOUNT();

   This function is used to display the account details of the user.

6. void DELETEA(); and void DELETER();

   These functions are used to delete all unnecessary user accounts and ride details(only for programmer's use!).

7. void DISPLAY();

   This function is used to display the customer's main menu which has options to book rides, modify and display account details.

8. void DISPUSER();

   This function is used to display the different rides available, and to accept pickup and drop locations from the customer.

9. void LOGIN();

   This function is used to login into the user's account by entering user credentials.

FILES USED

The following binary files were used in the project:

1. accounts.dat – To store accounts of various users.

2. Ride.dat – To store the ride details of a particular user.

SOURCE CODE

```
#include <graphics.h>

#include <fstream.h>

#include <iostream.h>

#include <process.h>

#include <stdlib.h>

#include <stdio.h>

#include <conio.h>

#include <string.h>

#include <ctype.h>

#include <time.h>

#include <dos.h>

struct uaccount                 /*Record structure for account details*/

{

  char username[20],mobile[10],email[30],password[10];

};

  char pick[11][20]={"Chennai Airport","Koyambedu","Velachery","Chennai Central","Chennai Egmore","Anna Nagar","T.Nagar","Adyar","OMR","Kodambakkam","Vadapalani"};

  char drop[17][20]={"Thiruvanmiyur","Poonamallee","Marina","MRC Nagar","Nanganallur","Ashok Nagar","Saidapet","Royapettah","Mount
```

```
Road","R.A.Puram","K.K.Nagar","Puducherry","Coimbatore","Madurai","Coch
in","Trichy","Tirupati"};
struct ride                    /*Record structure for ride details*/
{
  char orig[30],dest[30];
  int dist,fare;
};
void CALCULATE(ride,int);   /*Prototypes of all the functions*/
void MODIFY(void);
void CREATE(void);
void RIDE(ride,int);
void DISPACCOUNT(char[]);
void DELETEA(void);
void DELETER(void);
void DISPLAY(char[]);
void DISPUSER(void);
void LOGIN(void);
void CALCULATE(ride r,int ch)          /*Function to calculate the fare
                                        of the ride*/
{
  int flag=0;
  fstream x;
```

```
  void RIDE(ride,int);
  for(int i=0;i<11;i++)
    for(int j=0;j<17;j++)
      if((strcmpi(r.orig,pick[i])==0)&&(strcmpi(r.dest,drop[j])==0))
      {
          x.open("Ride.dat",ios::out||ios::binary);      /*Binary file to store ride details*/
          if(ch==1)
          r.fare=10+(r.dist*7);
          else if(ch==2)
          r.fare=15+(r.dist*10);
          else if(ch==3)
          r.fare=7+(r.dist*5);
          else if(ch==4)
          r.fare=20+(r.dist*10);
          else if(ch==5)
          r.fare=2500;
          else if(ch==6)
          r.fare=2000;
          else if(ch==7)
          r.fare=r.dist*2;
          else if(ch==8)
```

```
        r.fare=r.dist*5;
        else if(ch==9)
        r.fare=50+(r.dist*20);
        flag=1;
    }
    if(flag==0)
    {
    cout<<"\nOops!No rides available according to your request. Sorry for the inconvenience!\n";
    return; }
    else
    {
        x.write((char*)&r,sizeof(r));
        clrscr();
        cleardevice();
        setcolor(3);
        settextstyle(3,0,3);
        outtextxy(300,150,"FETCHING YOUR RIDE....");
        for(i=1;i<=3;i++)
        {
          setcolor(2);
          setlinestyle(0,0,3);
```

```
            for(j=1;j<=360;j++)
            {
              arc(300,250,0,j,30);
              delay(0.01);
            }
            setcolor(0);
            setlinestyle(0,0,3);
            for(j=1;j<=360;j++)
            {
              arc(300,250,0,j,30);
              delay(0.01);
            }
          }
          RIDE(r,ch);                /*Invoking function RIDE to display
                                      to display ride details*/
      }
    x.close();
    getch();
    return;
}
void MODIFY()                        /*Function to modify account details*/
{
```

```
  clrscr();
  cleardevice();
  int ch,c=0,flag=0;
  char uname[20],mno[10],mail[20],pass[10],npass[10];
  fstream x("accounts.dat",ios::in||ios::out||ios::binary);  /*Binary file to store account details*/
  uaccount a;
  setcolor(4);
  settextstyle(5, 0, 7);
  outtextxy(300,50,"Velocity Cabs");
  setcolor(4);
  settextstyle(7,0,4);
  outtextxy(300,120,"EDIT ACCOUNT");
  settextstyle(6,0,2);
  setcolor(2);
  outtextxy(100,200,"1.EDIT USERNAME");
  outtextxy(150,250,"2.EDIT MOBILE NUMBER");
  outtextxy(120,300,"3.EDIT E-MAIL ID");
  outtextxy(110,350,"4.EDIT PASSWORD");
  cout<<"\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\tEnter the required choice:";
  cin>>ch;
```

```
cout<<"\nEnter existing password\n";
gets(pass);
while(!x.eof())
{
  x.read((char*)&a,sizeof(a));
  c++;
  if(strcmp(pass,a.password)==0)
  {
   if(ch==1)
   {
      cout<<"\nEnter new username\n";
      gets(uname);
      strcpy(a.username,uname);
      x.seekp((c-1)*sizeof(a),ios::beg);
      x.write((char*)&a,sizeof(a));
      cout<<"\nUsername updated!!!";flag=1;break;
   }
   else if(ch==2)
   {
      cout<<"\nEnter new mobile no.\n";
      gets(mno);
      strcpy(a.mobile,mno);
```

```
    x.seekp((c-1)*sizeof(a),ios::beg);
    x.write((char*)&a,sizeof(a));
    cout<<"\nMobile number updated!!!";flag=1;break;
}
else if(ch==3)
{
    cout<<"\nEnter new e-mail ID\n";
    gets(mail);
    strcpy(a.email,mail);
    x.seekp((c-1)*sizeof(a),ios::beg);
    x.write((char*)&a,sizeof(a));
    cout<<"\nE-mail updated!!!";flag=1;break;
}
else if(ch==4)
{
    cout<<"\nEnter new password\n";
    gets(npass);
    strcpy(a.password,npass);
    x.seekp((c-1)*sizeof(a),ios::beg);
    x.write((char*)&a,sizeof(a));
    cout<<"\nPassword updated!!!";flag=1;break;
}
```

```
    }
   }
  x.close();
  if(flag==0)
  cout<<"\nRecord not found\n";
  getch();
  return;
}
void CREATE()                    /*Function to create a new
                                   account*/
{
  clrscr();
  cleardevice();
  uaccount a;
  char ch,cpassword[10];
  fstream x("accounts.dat",ios::out|ios::binary);    /*Binary file to store user accounts*/
  setbkcolor(0);
  setcolor(4);
  settextstyle(5, 0, 7);
  outtextxy(300,50,"Velocity Cabs");
```

```
setcolor(10);
settextstyle(7,0,4);
outtextxy(300,120,"NEW ACCOUNT");
do
{
cout<<"\n\n\n\n\n\n\n\n\n\n\nEnter the details\n";
cout<<"Username: ";
gets(a.username);
cout<<"\nMobile Number: ";
gets(a.mobile);
cout<<"\nEmail ID: ";
gets(a.email);
cout<<"\nPassword(min. 8 characters): ";
gets(a.password);
cout<<"\nConfirm Password: ";
gets(cpassword);
while(strcmp(a.password,cpassword)!=0)
{
  cout<<"\nWrong Password! Re-enter correct password\n";
  gets(cpassword);
}
if(strcmp(a.password,cpassword)==0)
```

```
  {
    cout<<"\n\n\n\t\tACCOUNT CREATED SUCCESSFULLY!!!";
    x.write((char*)&a,sizeof(a));
  }
  cout<<"\nAny more records?y/n";
  cin>>ch;
}while(ch=='y'||ch=='Y');
x.close();
getch();
return;
}
void RIDE(ride r,int ch)                /*Function to display ride details*/
{
  clrscr();
  char c;
  cleardevice();
  fstream y("Temp3.dat",ios::out||ios::binary);      /*Binary file to store details of cancelled rides*/
  int pc;
  randomize();
  setcolor(1);
  settextstyle(5,0,7);
```

```
outtextxy(300,50,"Velocity Cabs");
setcolor(3);
settextstyle(7,0,4);
outtextxy(300,120,"RIDE DETAILS");
cout<<"\n\n\n\n\n\n\n\n\n\n\n\nPICKUP LOCATION: "<<r.orig;
cout<<"\nDROP LOCATION: "<<r.dest;
cout<<"\nDISTANCE: "<<r.dist<<" km";
cout<<"\nFARE: "<<r.fare<<" INR";
cout<<"\t\tVEHICLE: ";
if(ch==1)
 cout<<"Tata Tiago";
else if(ch==2)
 cout<<"Hyundai Verna";
else if(ch==3)
 cout<<"TVS King";
else if(ch==4)
 cout<<"Maruti Suzuki Ertiga";
else if(ch==5)
 cout<<"Airbus Eurocopter H175";
else if(ch==6)
 cout<<"Jeep Grand Cherokee";
else if(ch==7)
```

```
 cout<<"Mach City iBike";
else if(ch==8)
 cout<<"MG Hector";
else if(ch==9)
 cout<<"Jaguar XE";
cout<<"\n\t\tVEHICLE NUMBER: "<<random(9000)+1000;
cout<<"\n\n\n\tPAYMENTS TO BE MADE AFTER REACHING\nDESTINATION USING ANY ONE OF THESE\n";
cout<<"1.Cash\n";
cout<<"2.Credit/Debit cards\n";
cout<<"3.Net Banking\n";
cout<<"4.CosmoWallet\n";
cout<<"5.Google Pay\n";
cout<<"6.Amazon Pay\n";
cout<<"7.Paytm\n";
cout<<"8.PhonePe";
cout<<"\nDo you want to cancel the ride?(y/n): ";
cin>>c;
if(c=='y'||c=='Y')
{
  y.write((char*)&r,sizeof(r));
  remove("Temp3.dat");
```

```
    cout<<"\n\t\t\t\tRIDE CANCELLED!!!";
  }
  y.close();
  getch();
  return;
}
void DISPACCOUNT(char name[20])          /*Function to display account details*/
{
  clrscr();
  cleardevice();
  uaccount a;
  fstream x("accounts.dat",ios::in||ios::binary);
  setcolor(4);
   settextstyle(5, 0, 7);
   outtextxy(300,50,"Velocity Cabs");
   setcolor(3);
   settextstyle(7,0,4);
   outtextxy(300,120,"ACCOUNT DETAILS");
   cout<<"\n\n\n\n\n\n\n\n\n\n";
   while(!x.eof())
   {
```

```
    x.read((char*)&a,sizeof(a));
    if(strcmp(name,a.username)==0)
    {
      cout<<"USERNAME: "<<a.username;
      cout<<"\nMOBILE NUMBER: "<<a.mobile;
      cout<<"\nE-MAIL ID: "<<a.email;
      cout<<"\nPASSWORD: "<<a.password;
      break;
    }
  }
  x.close();
  getch();
  return;
}
void DELETEA()          /*Function to delete all accounts*/
{
  uaccount a;
  fstream x("accounts.dat",ios::in||ios::binary);
  fstream y("Temp.dat",ios::out||ios::binary);       /*Temporary binary file*/
  while(!x.eof())
  {
    x.read((char*)&a,sizeof(a));
```

```
    y.write((char*)&a,sizeof(a));
  }
  x.close();
  y.close();
  remove("Temp.dat");
}
void DELETER()          /*Function to delete all ride details*/
{
  ride r;
  fstream z("Ride.dat",ios::in||ios::binary);
  fstream w("Temp2.dat",ios::out||ios::binary);
   while(!z.eof())
  {
    z.read((char*)&r,sizeof(r));
    w.write((char*)&r,sizeof(r));
  }
  z.close();
  w.close();
  remove("Temp2.dat");
}
void DISPLAY(char name[])          /*Function to display user menu*/
{
```

```
label:
clrscr();
cleardevice();
int ch;
uaccount a;
fstream x("accounts.dat",ios::in||ios::binary);
setcolor(1);
setlinestyle(0,0,3);            /*Drawing moving border*/
for(int i=7;i<=600;i++)
 {
   line(7,7,i,7);
   delay(1);
 }
 line(7,7,600,7);
 for(i=7;i<=400;i++)
 {
   line(600,7,600,i);
   delay(1);
 }
 line(600,7,600,400);
 for(i=600;i>=7;i--)
 {
```

```
  line(600,400,i,400);
  delay(1);
}
line(600,400,7,400);
for(i=400;i>=7;i--)
{
  line(7,400,7,i);
  delay(1);
}
line(7,400,7,7);
setcolor(4);
settextstyle(5, 0, 7);
outtextxy(300,50,"Velocity Cabs");
setcolor(3);
settextstyle(7,0,4);
outtextxy(300,120,"WELCOME");
cout<<"\n\n\n";
settextstyle(6,0,2);
setcolor(2);
outtextxy(100,200,"1.BOOK A RIDE");
outtextxy(130,250,"2.EDIT MY ACCOUNT");
outtextxy(160,300,"3.DISPLAY ACCOUNT DETAILS");
```

```
  cout<<"\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\tEnter the required choice(enter 0 to go to main menu):";
  cin>>ch;
  if(ch==0)
  {
   getch();
   return;
  }
  if(ch==1)
  {
   DISPUSER();          /*Invoking function DISPUSER to book a ride*/
   goto label;
  }
  else if(ch==2)
  {
   MODIFY();          /*Invoking function MODIFY to modify account details*/
   goto label;
  }
  else if(ch==3)
  {
   DISPACCOUNT(name);     /*Invoking function DISPACCOUNT to display account details*/
```

```
    goto label;
  }
}
void DISPUSER()        /*Function to book a ride*/
{
  clrscr();
  cleardevice();
  int ch;
  ride r;
  setcolor(4);
  settextstyle(5, 0, 7);
  outtextxy(300,50,"Velocity Cabs");
  setcolor(3);
  settextstyle(7,0,4);
  outtextxy(300,120,"BOOK A RIDE");
  cout<<"\n\n\n\n\n\n\n\n\n1.Velocity Nano : Small fares for short rides";
  cout<<"\n2.Velocity Pro : Sedan and SUV rides at reasonable rates";
  cout<<"\n3.Velocity Auto : Auto rides at sensible prices";
  cout<<"\n4.Velocity Van : Share your ride and reduce pollution";
  cout<<"\n5.Velocity Air : Highly punctual air services of the first of its kind";
  cout<<"\n6.Velocity Rental : Want to be your own driver? We've got cars for
rent";
```

```
cout<<"\n7.Velocity Pedal : Seeking that last mile connectivity? Bicycles come to the rescue";

cout<<"\n8.Velocity Tour : Outstation trips in spacious SUVs";

cout<<"\n9.Velocity Elite : Chaffeur services in luxurious limousines";

cout<<"\n\t\t\LIST OF PICKUP AND DROP LOCATIONS\n";

cout<<"\n\tPICKUP\t\t\tDROP\n";

cout<<"\n\tChennai Airport\t\tThiruvanmiyur\n\tKoyambedu\t\tPoonamallee\n\tVelachery\t\tMarina \n\tChennai Central\t\tMRC Nagar\n\tChennai Egmore\t\tNanganallur\n\tAnna Nagar\t\tAshok Nagar\n\tT.Nagar\t\t\tSaidapet\n\tAdyar\t\t\tRoyapettah\n\tOMR\t\t\tMount Road\n\tKodambakkam\t\tR.A.Puram\n\tVadapalani\t\tK.K.Nagar\n";

cout<<"Outstation destinations: Puducherry,Coimbatore,Madurai,Cochin,Trichy,Tirupati\n";

cout<<"NOTE: Fare for requested drop area is same irrespective of drop location within the area";

cout<<"\nEnter your choice\n";

cin>>ch;

cout<<"\nEnter pickup location\n";

gets(r.orig);

cout<<"\nEnter drop location\n";

gets(r.dest);

cout<<"\nEnter the distance\n";

cin>>r.dist;;
```

```
   cout<<"\nFare: ";
   CALCULATE(r,ch);       /*Invoking CALCULATE to calculate fare*/
   getch();
   return;
}
void LOGIN()           /*Function to login into account*/
{
  clrscr();
  cleardevice();
  int flag=0;char c;
  setbkcolor(0);
  setcolor(4);
  settextstyle(5, 0, 7);
  outtextxy(300,50,"Velocity Cabs");
  setcolor(3);
  settextstyle(7,0,4);
  outtextxy(300,120,"USER LOGIN");
  uaccount a;
  char uname[20],pass[20];
  cout<<"\n\n\n\n\n\n\n\n\n\n\nEnter username: ";
  gets(uname);
  cout<<"\nEnter password: ";
```

```
 gets(pass);
 fstream x("accounts.dat",ios::in|ios::binary);
 while(!x.eof())
 {
  x.read((char*)&a,sizeof(a));
  if(strcmp(uname,a.username)==0&&strcmp(pass,a.password)==0)
  {
    DISPLAY(uname);      /*Invoking function DISPLAY to display user menu*/
    flag=1;break;
  }
 }
 x.close();
 if(flag==0)
 {
  cout<<"\nYou haven't registered yet. Do you want to register?(y/n)\n";
  cin>>c;
  if(c=='y'||c=='Y')
  CREATE();   /*Invoking function CREATE to create new account*/
 }
 getch();
 return;
}
```

```
void main()
{
  home:

  /* Initialising graphics */
  int gdriver = DETECT, gmode, errorcode;
  int style;
  int ch;
  /* initialize graphics mode */
  initgraph(&gdriver, &gmode, "");
  /* read result of initialization */
  errorcode = graphresult();
  if (errorcode != grOk)  /* an error occurred */
  {
    printf("Graphics error: %s\n", grapherrormsg(errorcode));
    printf("Press any key to halt:");
    getch();
    exit(1);             /* return with error code */
  }
settextjustify(CENTER_TEXT, CENTER_TEXT);
 /* select the text style */
```

```
setcolor(1);
setlinestyle(0,0,3);
for(int i=7;i<=600;i++)
{
  line(7,7,i,7);
  delay(1);
}
line(7,7,600,7);
for(i=7;i<=400;i++)
{
  line(600,7,600,i);
  delay(1);
}
line(600,7,600,400);
for(i=600;i>=7;i--)
{
  line(600,400,i,400);
  delay(1);
}
line(600,400,7,400);
for(i=400;i>=7;i--)
{
```

```
  line(7,400,7,i);
  delay(1);
 }
 line(7,400,7,7);
 setcolor(4);
 settextstyle(5, 0, 7);
 outtextxy(300,50,"Velocity Cabs");
 setcolor(7);
 settextstyle(7,0,4);
 outtextxy(300,120,"WELCOME");
 settextstyle(6,0,2);
 setcolor(2);
 outtextxy(130,200,"1.ABOUT Velocity Cabs");
 outtextxy(110,250,"2.USER LOGIN");
 outtextxy(170,300,"3.CREATE NEW ACCOUNT");
 outtextxy(100,350,"4.FAQs");
 cout<<"\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\n\tEnter the required choice(enter 0 to exit):";
 cin>>ch;
 cleardevice();
 if(ch==0)
 exit(0);
```

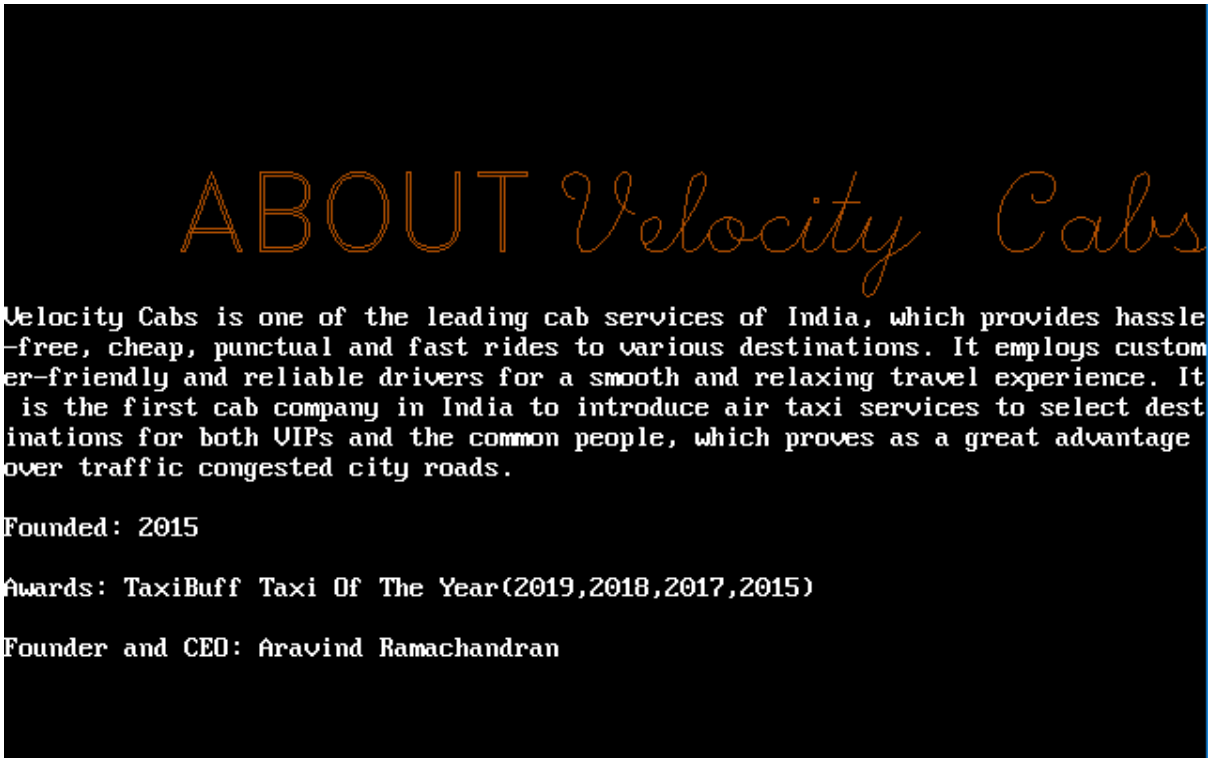
```
if(ch==1)
{
  clrscr();
  cleardevice();
  setcolor(6);
  settextstyle(3,0,7);
  outtextxy(190,100,"ABOUT");
  settextstyle(5,0,7);
  outtextxy(470,95,"Velocity Cabs");
  cout<<"\n\n\n\n\n\n\n\n\n\nVelocity Cabs is one of the leading cab services of India, which provides hassle-free, cheap, punctual and fast rides to various destinations. It employs customer-friendly and reliable drivers for a smooth and relaxing travel experience. It is the first cab company in India to introduce air taxi services to select destinations for both VIPs and the common people, which proves as a great advantage over traffic congested city roads.\n\nFounded: 2015\n\nAwards: TaxiBuff Taxi Of The Year(2019,2018,2017,2015)\n\nFounder and CEO: Aravind Ramachandran";
  getch();
  goto home;
}
else if(ch==3)
{
  CREATE();
```

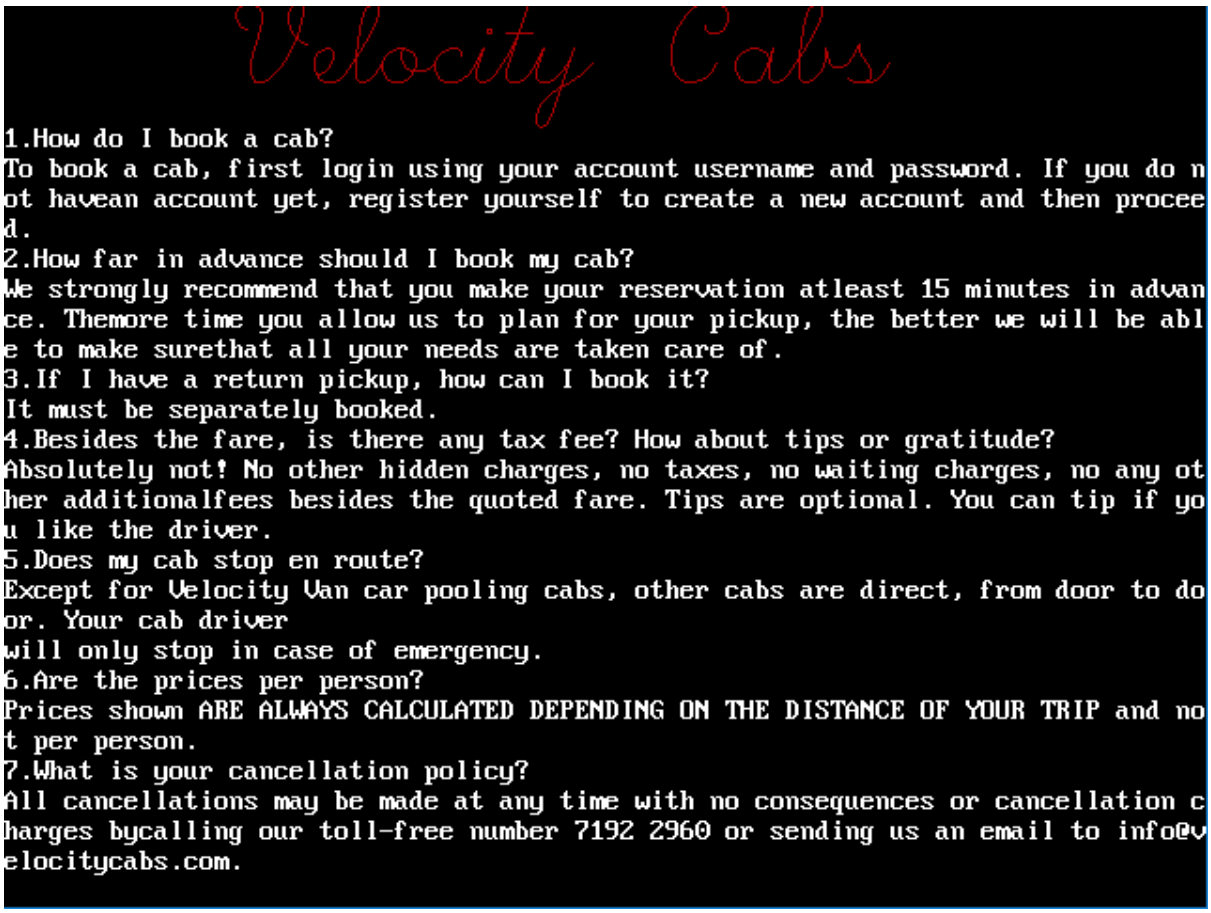
```
  goto home;
 }
 else if(ch==2)
 {
  LOGIN();
  goto home;
 }
 else if(ch==4)
 {
  clrscr();
  cleardevice();
  setbkcolor(0);
  setcolor(4);
 settextstyle(5, 0, 7);
 outtextxy(170,20,"      Velocity Cabs");
 setcolor(7);
 cout<<"\n\n\n\n\n1.How do I book a cab?\n";
 cout<<"To book a cab, first login using your account username and password. If you do not have";
 cout<<"an account yet, register yourself to create a new account and then proceed.\n";
 cout<<"2.How far in advance should I book my cab?\n";
```

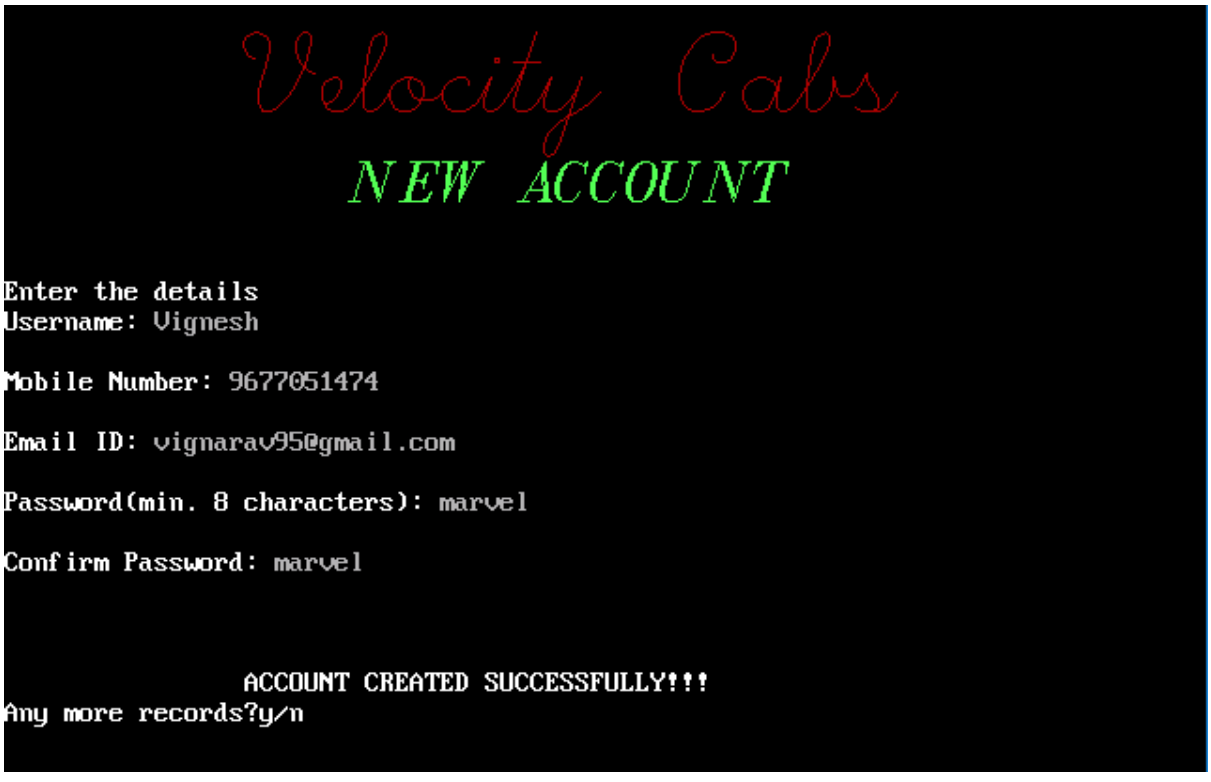
```
cout<<"We strongly recommend that you make your reservation atleast 15 minutes in advance. The";

cout<<"more time you allow us to plan for your pickup, the better we will be able to make sure";

cout<<"that all your needs are taken care of.\n";

cout<<"3.If I have a return pickup, how can I book it?\n";

cout<<"It must be separately booked.\n";

cout<<"4.Besides the fare, is there any tax fee? How about tips or gratitude?\n";

cout<<"Absolutely not! No other hidden charges, no taxes, no waiting charges, no any other additional";

cout<<"fees besides the quoted fare. Tips are optional. You can tip if you like the driver.\n";

cout<<"5.Does my cab stop en route?\n";

cout<<"Except for Velocity Van car-pooling cabs, other cabs are direct, from door to door. Your cab driver\n";

cout<<"will only stop in case of emergency.\n";

cout<<"6.Are the prices per person?\n";

cout<<"Prices shown ARE ALWAYS CALCULATED DEPENDING ON THE DISTANCE OF YOUR TRIP and not per person.\n";

cout<<"7.What is your cancellation policy?\n";

cout<<"All cancellations may be made at any time with no consequences or cancellation charges by";

cout<<"calling our toll-free number 7192 2960 or sending us an email to info@velocitycabs.com.\n";
```

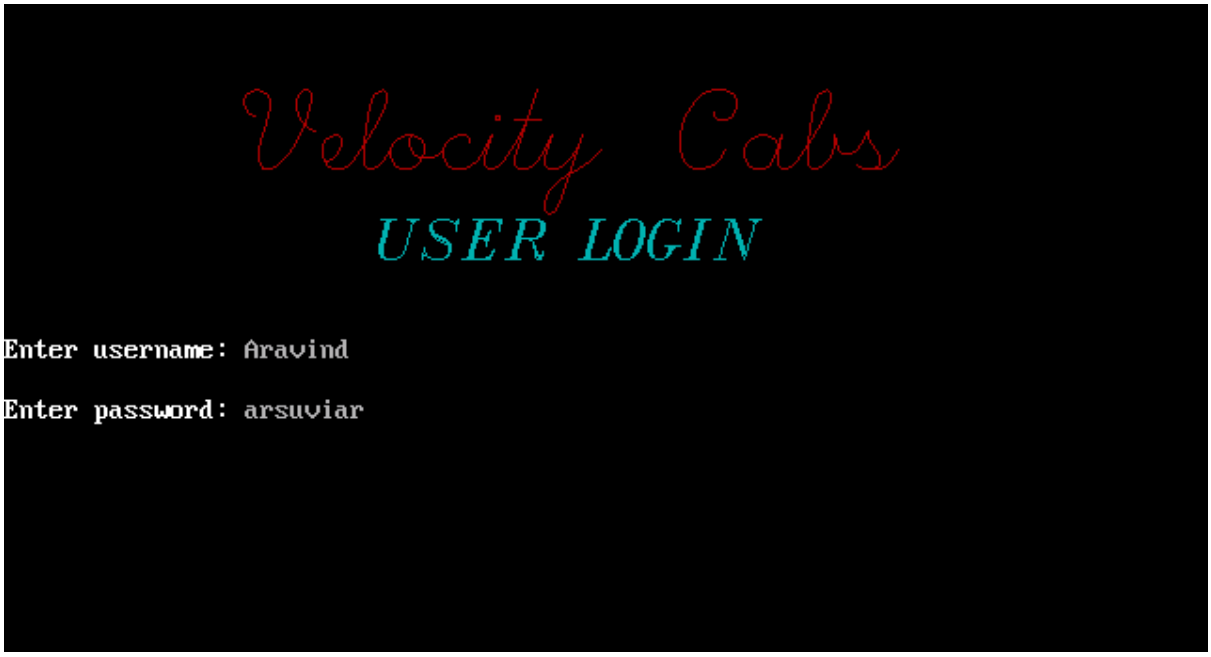
```
   getch();
   goto home;
   }
else if(ch==5)
{
  DELETEA();     /*Invoking functions DELETEA and DELETER to delete all account and ride details*/
  DELETER();
}
 /* clean up */
   getch();
   closegraph();    /*Closing graphics*/
}
```

SAMPLE OUTPUTS



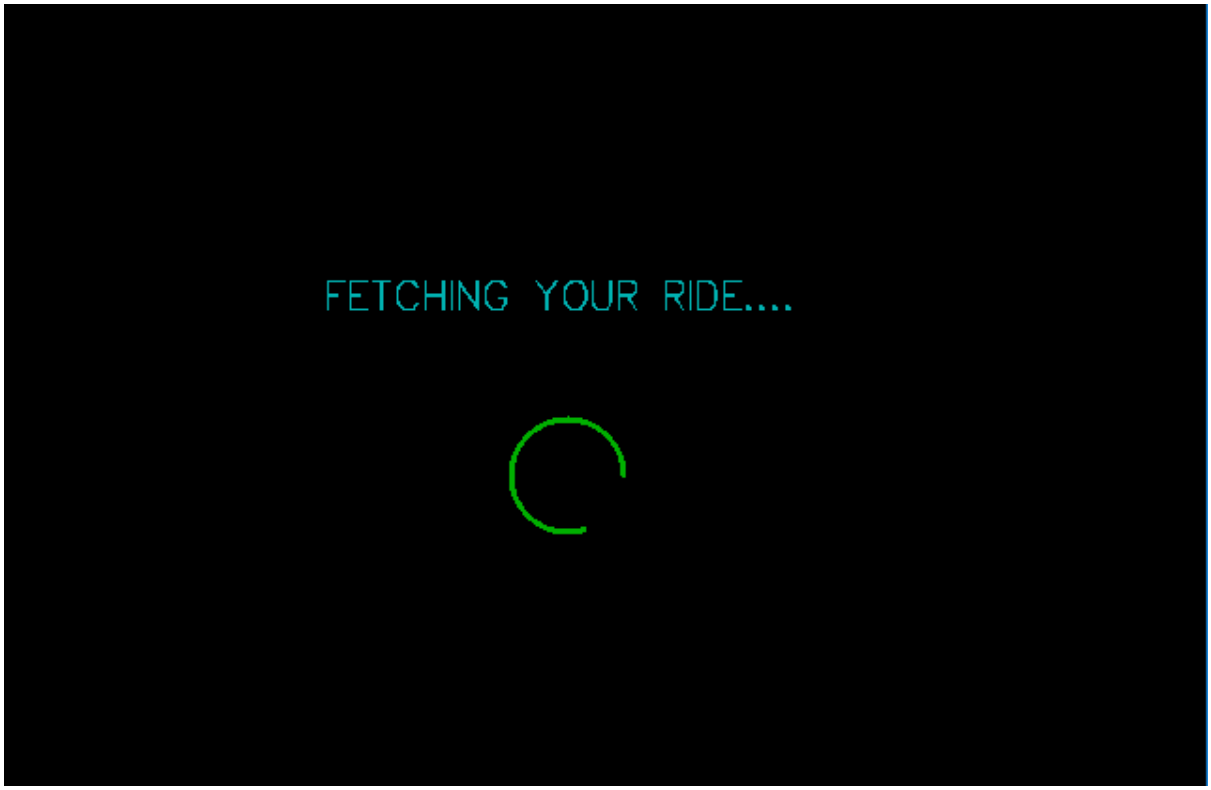

Velocity Cabs
1.How do I book a cab?
To book a cab, first login using your account username and password. If you do n
ot havean account yet, register yourself to create a new account and then procee
d.
2.How far in advance should I book my cab?
We strongly recommend that you make your reservation atleast 15 minutes in advan
ce. Themore time you allow us to plan for your pickup, the better we will be abl
e to make surethat all your needs are taken care of.
3.If I have a return pickup, how can I book it?
It must be separately booked.
4.Besides the fare, is there any tax fee? How about tips or gratitude?
Absolutely not! No other hidden charges, no taxes, no waiting charges, no any ot
her additionalfees besides the quoted fare. Tips are optional. You can tip if yo
u like the driver.
5.Does my cab stop en route?
Except for Velocity Van car pooling cabs, other cabs are direct, from door to do
or. Your cab driver
will only stop in case of emergency.
6.Are the prices per person?
Prices shown ARE ALWAYS CALCULATED DEPENDING ON THE DISTANCE OF YOUR TRIP and no
t per person.
7.What is your cancellation policy?
All cancellations may be made at any time with no consequences or cancellation c
harges bycalling our toll-free number 7192 2960 or sending us an email to info@v
elocitycabs.com.

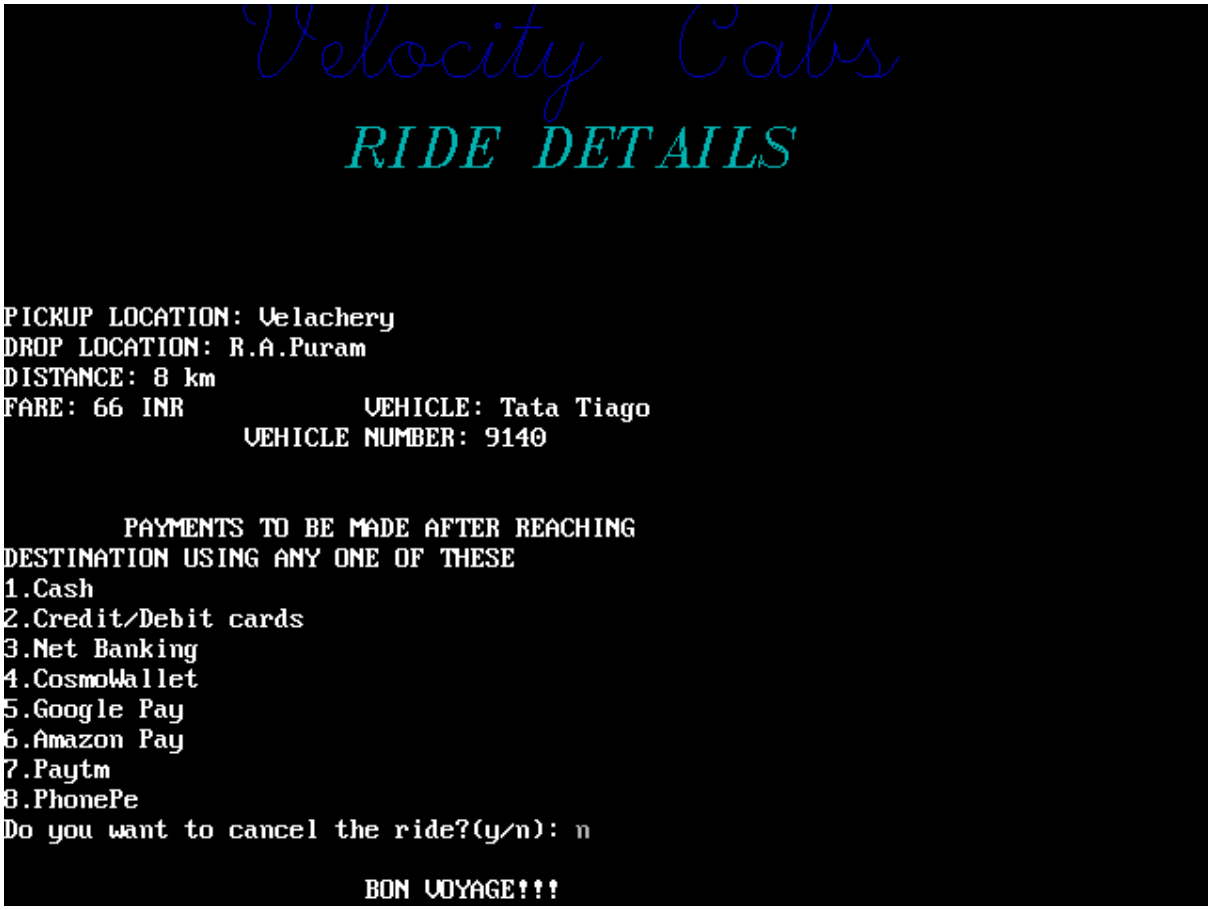

Velocity Cabs
NEW ACCOUNT
Enter the details
Username: Vignesh
Mobile Number: 9677051474
Email ID: vignarav95@gmail.com
Password(min. 8 characters): marvel
Confirm Password: marvel
ACCOUNT CREATED SUCCESSFULLY!!!
Any more records?y/n

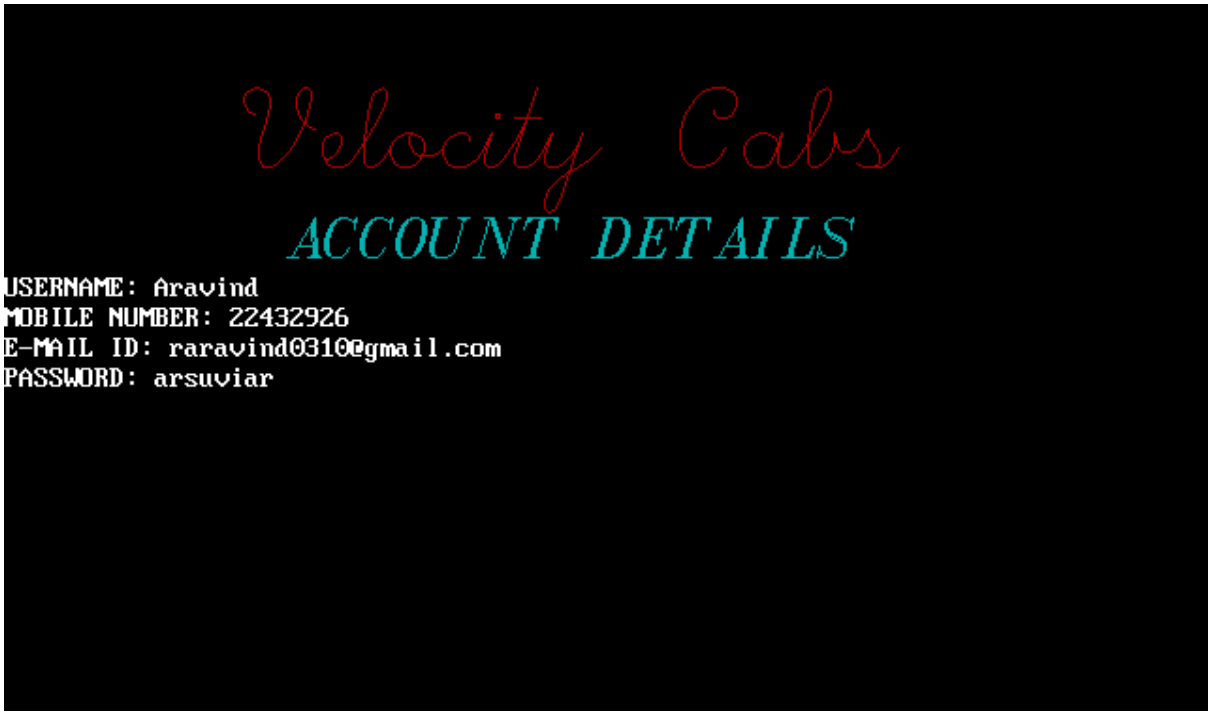

Velocity Cabs
USER LOGIN
Enter username: Aravind
Enter password: arsuviar

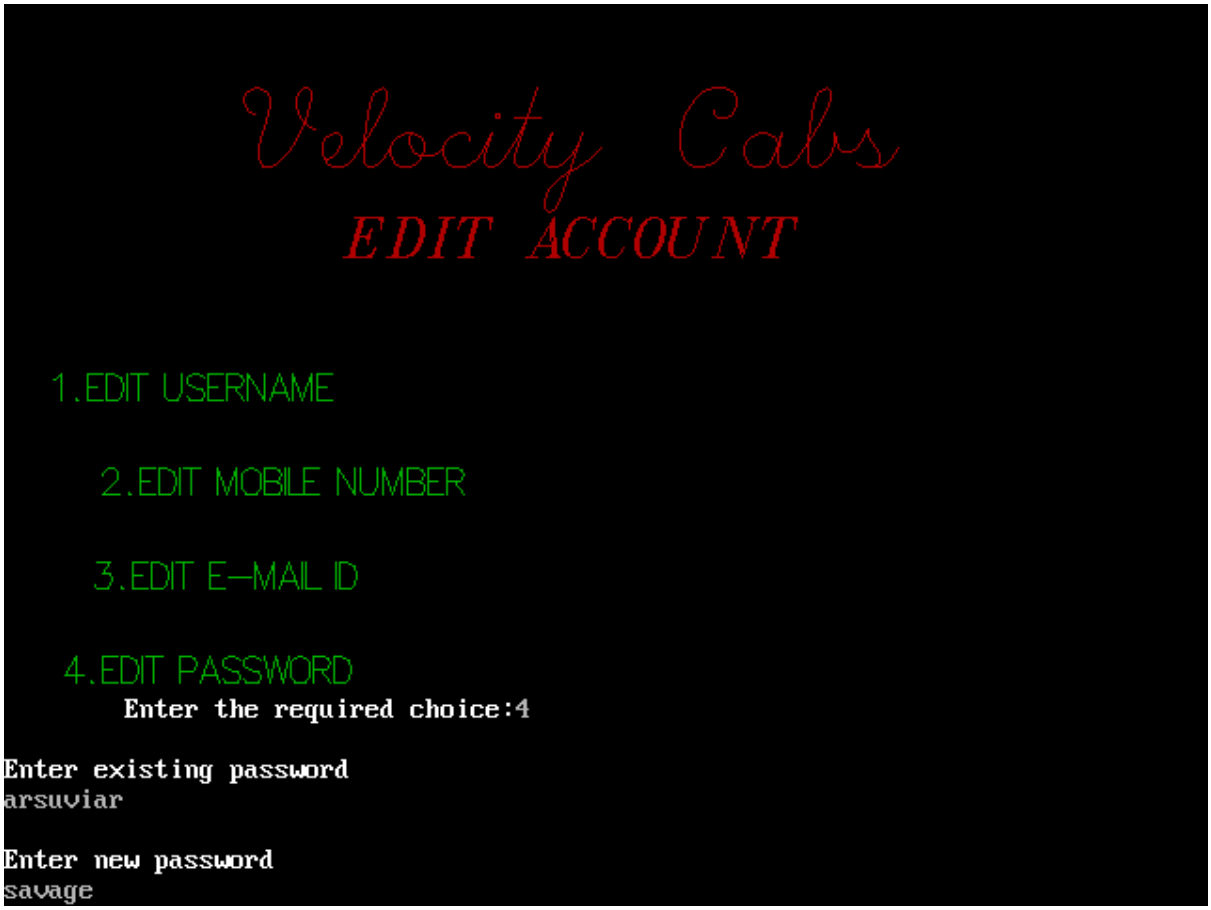

Velocity Cabs
WELCOME
1.BOOK A RIDE
2.EDIT MY ACCOUNT
3.DISPLAY ACCOUNT DETAILS
Enter the required choice(enter 0 to go to main menu):

```
7.Velocity Pedal : Seeking that last mile connectivity? Bicycles come to the res
cue
8.Velocity Tour : Outstation trips in spacious SUVs
9.Velocity Elite : Chaffeur services in luxurious limousines
                LIST OF PICKUP AND DROP LOCATIONS

        PICKUP                  DROP

        Chennai Airport         Thiruvanmiyur
        Koyambedu               Poonamallee
        Velachery               Marina
        Chennai Central         MRC Nagar
        Chennai Egmore          Nanganallur
        Anna Nagar              Ashok Nagar
        T.Nagar                 Saidapet
        Adyar                   Royapettah
        OMR                     Mount Road
        Kodambakkam             R.A.Puram
        Vadapalani              K.K.Nagar
Outstation destinations: Puducherry,Coimbatore,Madurai,Cochin,Trichy,Tirupati
NOTE: Fare for requested drop area is same irrespective of drop location within
the area
Enter your choice
1

Enter pickup location
Velachery

Enter drop location
R.A.Puram
```




Velocity Cabs
RIDE DETAILS
PICKUP LOCATION: Velachery
DROP LOCATION: R.A.Puram
DISTANCE: 8 km
FARE: 66 INR
VEHICLE: Tata Tiago
VEHICLE NUMBER: 9140
PAYMENTS TO BE MADE AFTER REACHING
DESTINATION USING ANY ONE OF THESE
1.Cash
2.Credit/Debit cards
3.Net Banking
4.CosmoWallet
5.Google Pay
6.Amazon Pay
7.Paytm
8.PhonePe
Do you want to cancel the ride?(y/n): n
BON VOYAGE!!!


Velocity Cabs
ACCOUNT DETAILS
USERNAME: Aravind
MOBILE NUMBER: 22432926
E-MAIL ID: raravind0310@gmail.com
PASSWORD: arsuviar


Velocity Cabs
EDIT ACCOUNT
1.EDIT USERNAME
2.EDIT MOBILE NUMBER
3.EDIT E-MAIL ID
4.EDIT PASSWORD
Enter the required choice:4
Enter existing password
arsuviar
Enter new password
savage

FUTURE SCOPE AND CONCLUSION

This project has helped in understanding the basic concepts of C++ and also showed that many types of data management systems(banks, educational institutions, restaurants, travel etc.) of today's world could be created using these concepts.

The scope of the project could be extended further by:

1. Displaying the ride history of a particular user.
2. Setting custom locations for a user (e.g. home, work etc.).
3. Displaying routes and tracking cab arrivals using maps.
4. Providing offers for users.
5. Accepting feedbacks and ratings from users.

BIBILIOGRAPHY

1. www.tutorialspoint.com
2. www.stackoverflow.com
3. www.geeksforgeeks.org
4. www.cplusplus.happycodings.com
5. Computer Science with C++ (Class XI & XII)