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**Cab Booking System Project in C++**

The Cab Booking System project consist of the following functionality

**Customer Management**

Create a database with 5-8 customers.

Save the information about customer like Name, location, balance etc.

**Cab Booking**

Create cab database for 4-6 vehicles.

Create 5-8 pickup and drop locations with distance.

Maintain the status each of cab i.e. it is available or not.

Book the cab for customer according to the availability.

In case of unavailability the first available cab should be booked for the customer

that demanded first.

Calculate fare according to the distance between pickup and drop locations.

Charge Rs.20/km and in case of distance more than 15 kilometers give discount of 10%.

Save the booking record for each booking.

**File Management**

Maintain all text files containing cabs, customer and booking details.

Error Handling and online Help At each level

If some information is not present in the database, it should display proper messages.

**Code:**

**#include<iostream>//Header**

**using namespace std;**

**void CheckBookingRecord();//Function Prototype**

**ofstream MYFILE;**

**string NewWorkerName;**

**string NewWorkerPassword;**

**string AdminName="admin";**

**string AdminPassword="admin";**

**void BookingFromPeshawerToNowshera();//Function Prototype**

**void BookingFromPeshawerToIslamabad();//Function Prototype**

**void BookingFromPeshawerToMardan();//Function Prototype**

**void BookingFromPeshawerToLahore();//Function Prototype**

**const int Size=10;**

**string NumberOfCab[Size]={"","215","210","456","789","123"};//initializing**

**int CABSTATUS[Size]={1,1,1,1,1,1};//initializing**

**int ChargesPerKm=5;//initializing**

**int Counting=4;//initializing**

**int count=0;//initializing**

**int \*PChargesPerKm=&ChargesPerKm;//initializing**

**bool wrong = false;//initializing**

**int main()**

**{**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**//\* DiSpLaYiNg WeLcOmE ScReEn \***

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**int count=0;**

**system("color 1E");//Setting The Color Of Console**

**cout<<endl;**

**cout<<"\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n";**

**cout<<"\t\* Wel Come \*\n";**

**cout<<"\t\* To \*\n";**

**cout<<"\t\* Cab Booking System \*\n";**

**cout<<"\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n";**

**cout<<endl;**

**cout<<endl;**

**cout<<endl;**

**cout<<"\tLoAdInG ";**

**Sleep(100);//For Pause**

**cout<<"<";**

**Sleep(100);//For Pause**

**cout<<">";**

**Sleep(100);//For Pause**

**cout<<"<";**

**Sleep(100);//For Pause**

**cout<<">";**

**Sleep(100);//For Pause**

**cout<<"<";**

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**Sleep(100);//For Pause**

**cout<<"<";**

**Sleep(100);//For Pause**

**cout<<">";**

**Sleep(100);//For Pause**

**cout<<"<";**

**Sleep(100);//For Pause**

**cout<<">";**

**Sleep(100);//For Pause**

**cout<<"\n\n\t SuCcEsSFuL\n";**

**Sleep(2000);//For Pause**

**system("CLS");//To Clear The Screen**

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**//\* BoOkInG \***

**//\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\***

**do{**

**system("CLS");**

**char Wish;**

**string Choice;**

**cout<<"\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;**

**cout<<"\t\* Booking \*"<<endl;**

**cout<<"\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;**

**cout<<endl;**

**cout<<endl;**

**cout<<"<1> To Book Cab From Peshawer To Nowshera"<<endl;**

**cout<<endl;**

**cout<<"<2> To Book Cab From Peshawer To Islamabad"<<endl;**

**cout<<endl;**

**cout<<"<3> To Book Cab From Peshawer To Lahore"<<endl;**

**cout<<endl;**

**cout<<"<4> To Book Cab From Peshawer To Mardan"<<endl;**

**cout<<endl;**

**cout<<"<5> To Go Back to Previous Menu"<<endl;**

**cout<<endl;**

**cout<<"Select :";**

**cin>>Choice;**

**int choice = atoi( Choice.c\_str() );//converting string to int**

**switch(choice)**

**{**

**count++;**

**case 1:**

**{**

**BookingFromPeshawerToNowshera();//Calling function**

**break;**

**}**

**case 2:**

**{**

**BookingFromPeshawerToIslamabad();//Calling function**

**break;**

**}**

**case 3:**

**{**

**BookingFromPeshawerToLahore();//Calling function**

**break;**

**}**

**case 4:**

**{**

**BookingFromPeshawerToMardan();//Calling function**

**break;**

**}**

**case 5:**

**{**

**goto x;**

**}**

**default:**

**{**

**cout<<"You Enter Wrong Choice\n";**

**}**

**}**

**cout<<"Do you want to continue...... ";**

**Wish=getch();**

**}while(Wish);**

**break;**

**}**

**case 4:**

**{**

**system("CLS");**

**string UpdatingStatus;**

**char Wish;**

**do{**

**cout<<"\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;**

**cout<<"\t\* UpDating Status \*"<<endl;**

**cout<<"\t\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"<<endl;**

**cout<<endl;**

**cout<<"Enter The Cab Id Number To UPdate status: ";**

**cin>>UpdatingStatus;**

**long int choice = atoi( UpdatingStatus.c\_str() );**

**switch(choice)**

**{**

**case 215:**

**{**

**char Statuss;**

**cout<<"The Cab Id Number 215 Returned Or Not(Y/N) :";**

**cin>>Statuss;**

**if(toupper(Statuss=='N'))**

**{**

**CABSTATUS[1]=0;**

**}**

**else**

**{**

**CABSTATUS[1]=1;**

**}**

**break;**

**}**

**case 210:**

**{**

**char Statuss;**

**cout<<"The Cab Id Number 210 Returned Or Not(Y/N) :";**

**cin>>Statuss;**

**if(toupper(Statuss=='N'))**

**{**

**CABSTATUS[2]=0;**

**}**

**else**

**{**

**CABSTATUS[2]=1;**

**}**

**break;**

**}**

**case 456:**

**{**

**char Statuss;**

**cout<<"The Cab Id Number 456 Returned Or Not(Y/N) :";**

**cin>>Statuss;**

**if(toupper(Statuss=='N'))**

**{**

**CABSTATUS[3]=0;**

**}**

**else**

**{**

**CABSTATUS[3]=1;**

**}**

**break;**

**}**

**case 789:**

**{**

**char Statuss;**

**cout<<"The Cab Id Number 789 Returned Or Not(Y/N) :";**

**cin>>Statuss;**

**if(toupper(Statuss=='N'))**

**{**

**CABSTATUS[4]=0;**

**}**

**else**

**{**

**CABSTATUS[4]=1;**

**}**

**break;**

**}**

**case 123:**

**{**

**char Statuss;**

**cout<<"The Cab Id Number 789 Returned Or Not(Y/N) :";**

**cin>>Statuss;**

**if(toupper(Statuss=='N'))**

**{**

**CABSTATUS[5]=0;**

**}**

**else**

**{**

**CABSTATUS[5]=1;**

**}**

**break;**

**}**

**default:**

**{**

**cout<<"You Enter Wrong Choice."<<endl;**

**}**

**}**

**cout<<"Do You Want To update The Another CAb Status(Y/N): ";**

**cin>>Wish;**

**}while(Wish=='Y' || Wish=='y');**

**break;**

**}//end of case 2**

**case 3:**

**{**

**CheckBookingRecord();**

**break;**

**}//end of case 3**

**case 2:**

**{**

**system("CLS");**

**int size=6;**

**cout<<"CAB STATUS\n";**

**for(int i=1;i<size;i++)**

**{**

**if(CABSTATUS[i] ==1)**

**{**

**cout<<"Cab "<<NumberOfCab[i]<<" IS FREE\n";**

**}**

**else**

**{**

**cout<<"Cab "<<NumberOfCab[i]<<" IS NOT FREE\n";**

**}**

**}**

**break;**

**}**

**case 5:**

**{**

**system("CLS");**

**cout<<"\tFor Logout\n";**

**break;**

**}**

**default:**

**{**

**cout<<"You Enter Wrong Choice\n";**

**break;**

**}**

**}//end of switch**

**if(choice==5)**

**{**

**break;**

**}**

**cout<<"Press any key to continue...... ";**

**Wish=getch();**

**}while(Wish);**

**}**

**else**

**{**

**cout<<"Incorrect User Name And Password\n"**

**<<"Please Try Again";**

**Sleep(2000);**

**}**

**}while(!LoginSuccess);**

**break;**

**}//end of case 2**

**case 3:**

**{**

**system("CLS");**

cout<<"--------------------------------------"<<endl;

cout<<"|GuIdE LiNes WhIlE FiLlInG The fOrM: |"<<endl;

cout<<"--------------------------------------"<<endl;

cout<<endl;

cout<<"After Entering Your Name Put FullStop After Ending The NAme.\n";

cout<<"Your Must Put Fullstop at The End If You Didn't So Program \n";

cout<<"Will Not Go Further.\n";

cout << "What is your NAme : ";

getline(cin,Name,'.');

Charges=Distance\*ChargesPerKm - Distance\*0.10;//Computing Charges

cout <<"\nPick : Peshawer";

cout <<"\nDrop:Lahore";

cout <<"\nDistance: 450Km";

cout <<"\nCharges: Rs"<< Charges<<"\n";

char PaidCharges;

cout<<"Did You PAy The Charges(Y/N) :- ";

PaidCharges=getch();

if(PaidCharges =='Y')

{

cout<<NumberOfCab[count]<<" is Booked For You";

cout<<"Your Booking Has Been Done\n";

MyFile <<"\n\t\tCustomer Record\n";//writing on file

MyFile << "\nNAme : "<< Name;//writing on file

MyFile <<"\nPick : Peshawer";//writing on file

MyFile <<"\nDrop:Lahore";//writing on file

MyFile <<"\nDistance: 350Km";//writing on file

MyFile <<"\nCharges: Rs"<< Charges;//writing on file

MyFile.close();//File Close

CABSTATUS[count]=0;

Sleep(1000);

}

else if(PaidCharges =='y')

{

cout<<NumberOfCab[count]<<" is Booked For You";

cout<<"Your Booking Has Been Done\n";

MyFile <<"\n\t\tCustomer Record\n";//writing on file

MyFile << "\nNAme : "<< Name;//writing on file

MyFile <<"\nPick : Peshawer";//writing on file

MyFile <<"\nDrop:Lahore";//writing on file

MyFile <<"\nDistance: 350Km";//writing on file

MyFile <<"\nCharges: Rs"<< Charges;//writing on file

MyFile.close();//File Close

CABSTATUS[count]=0;

Sleep(1000);

}

else

{

cout<<"Your Booking HAs BEen Canceled Due to Unpaid Charge. \n";

MYFile <<"\n\t\tBooking Caceled\n";//writing on file

MYFile << "\nNAme : "<< Name;//writing on file

MYFile <<"\nPick : Peshawer";//writing on file

MYFile <<"\nDrop:Lahore";//writing on file

MYFile <<"\nDistance: 350Km";//writing on file

MYFile <<"\nCharges: Rs"<< Charges;//writing on file

count--;

MYFile.close();//File Close

}

MYFILE.close();

Sleep(2000);

}

}

void BookingFromPeshawerToMardan()

{

if(CABSTATUS[1]==0 && CABSTATUS[2]==0 && CABSTATUS[3]==0 && CABSTATUS[4]==0 && CABSTATUS[5]==0 )

{

cout<<"All The cabs Are Book"<<endl;

cout<<"We Can Not Book Cab for You"<<endl;

}

else

{ for(int i=0;i<=6;i++)

{

if(CABSTATUS[i]==1)

{

count=i;

break;

}

}

system("CLS");

ofstream MYFile;//Creating Object Due To Which we Write On File

ofstream MyFile;//Creating Object Due To Which we Write On File

float Distance=35;//Declaration

float Charges;//INitializing

string Name;//Initializing

ofstream MYFILE;

MYFILE.open("CabStatus.txt",ios::app);

MyFile.open("Customer Record.txt",ios::app);//File oPEN

MYFile.open("CancelBooking.txt",ios::app);//File Open

cout << "\t\tBoOkInG\n";

cout<<"--------------------------------------"<<endl;

cout<<"|GuIdE LiNes WhIlE FiLlInG The fOrM: |"<<endl;

cout<<"--------------------------------------"<<endl;

cout<<endl;

cout<<"After Entering Your Name Put FullStop After Ending The NAme.\n";

cout<<"Your Must Put Fullstop at The End If You Didn't So Program \n";

cout<<"Will Not Go Further.\n";

cout << "What is your NAme : ";

getline(cin,Name,'.');

Charges=Distance\*ChargesPerKm - Distance\*0.10;//Computing Charges

cout <<"\nPick : Peshawer";

cout <<"\nDrop:Mardan";

cout <<"\nDistance: 35Km";

cout <<"\nCharges: Rs"<< Charges<<"\n";

char PaidCharges;

cout<<"Did You PAy The Charges(Y/N) :- ";

PaidCharges=getch();

if(PaidCharges =='Y')

{

cout<<NumberOfCab[count]<<" is Booked For You";

cout<<"Your Booking Has Been Done\n";

MyFile <<"\n\t\tCustomer Record\n";//writing on file

MyFile << "\nNAme : "<< Name;//writing on file

MyFile <<"\nPick : Peshawer";//writing on file

MyFile <<"\nDrop:Mardan";//writing on file

MyFile <<"\nDistance: 35Km";//writing on file

MyFile <<"\nCharges: Rs"<< Charges;//writing on file

MyFile.close();//File Close

CABSTATUS[count]=0;

Sleep(1000);

}

else if(PaidCharges =='y')

{

cout<<NumberOfCab[count]<<" is Booked For You";

cout<<"Your Booking Has Been Done\n";

MyFile <<"\n\t\tCustomer Record\n";//writing on file

MyFile << "\nNAme : "<< Name;//writing on file

MyFile <<"\nPick : Peshawer";//writing on file

MyFile <<"\nDrop:Mardan";//writing on file

MyFile <<"\nDistance: 35Km";//writing on file

MyFile <<"\nCharges: Rs"<< Charges;//writing on file

MyFile.close();//File Close

CABSTATUS[count]=0;

Sleep(1000);

}

else

{

cout<<"Your Booking HAs BEen Canceled Due to Unpaid Charge. \n";

MYFile <<"\n\t\tBooking Caceled\n";//writing on file

MYFile << "\nNAme : "<< Name;//writing on file

MYFile <<"\nPick : Peshawer";//writing on file

MYFile <<"\nDrop:Islamabad";//writing on file

MYFile <<"\nDistance: 150Km";//writing on file

MYFile <<"\nCharges: Rs"<< Charges;//writing on file

MYFile.close();//File Close

count--;

}

MYFILE.close();

Sleep(2000);

}

}

void CheckBookingRecord()

{

system("CLS");

ifstream InFile;//creating Object to read from file

char ch;//initializing

InFile.open("Customer Record.txt");//file open

while (!InFile.eof())

{

InFile.get ( ch ) ;

cout << ch ;

}

InFile.close();//file close

cout<<endl;

}