COMPUTER SCIENCE PROJECT ON C++

Railway ticket reservation

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CLASS XII 'F'

REGISTRATION NO.

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CERTIFICATION

This is to certify that **PAWAN KUMAR GANJHU**, a student of class **XII** of **the OXFORD PUBLIC SCHOOL, PRAGATI PATH RANCHI- 834001**, session 2013-2014, has satisfactorily completed the required project work **on COMPUTER SCIENCE, C++** as per the syllabus of Standard XII prescribed by the council of **C.B.S.E** in the laboratory of the school.

Date: Internal teacher's signature:

Principal's signature: External examiner's signature:

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PAWAN KUMAR GANJHU

CLASS - XII

ROLL NO:-

OBJECTIVE

To develop a C++ project to manage a RAILWAY TICKET RESERVATION service using object oriented programming and data file handling.

The C++ programming language was developed at AT&T Bell laboratories in the early igSo's by **Bijarne Stroustrup**. He found out "C" lacking for simulating and decided to extend the language by adding features from his favourite language. SimtaSj was one of the earliest object-oriented languages. Biarne Stroustrup called it "C with classes" originally. 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.

The major reasons for its success is the support for object oriented programming, which is most near to real world situations.

However, the maturation of the C++ language is attested by 2 recent events:-

- The formation of an ANSI (American National Standard

Institute) C++ committee, and

• The publication of the Annotated C++ Reference Manual by Ellis and Stroustrup. One can easily judge the importance of C++ as given the following lines:-

"**Object-oriented technology is regarded as the ultimate paradigm for the modeling of the information in the data of logic. The C++ is now shown to fulfill this goal**".

This is a project based on train reservation. The program helps us to **enter, display or alter the details of different trains**.

Moreover & most importantly the program helps us **to reserve or cancel a train ticket.**

The program also helps us to know **the present status** of a reserved ticket, i.e. whether the ticket is **confirmed or not.**

It includes various function programs to do the above mentioned tasks.

❊ BASIC CONCEPTS OF OOP

The object oriented programming has been developed with a view to overcome the drawbacks of conventional programming approaches. The OOP approach is based on certain concepts that help it attain its goals of overcoming the drawbacks or shortcomings of conventional programming approaches. These general concepts of OOP are given below:-

→ DATA ABSTRACTION:-

Abstraction is the concept of simplifying a real world concept into its essential elements.

“Abstraction refers to the act of representing essential features without including the backgroung details or explanation.”

→ENCAPULATION:-

Encapulation is the most fundamental concept of OOP. It is the way of combining both data and the functions that operate on that data under a single unit.

“The wrapping up of data and operations / functions into a single unit is known as encapulation.”

→MODULARITY:-

The act of partitioning a program into individual components is called modularity. The justification for partitioning is that, it reduces its complexity to some degree and it creates a number of well-defined, documented boundries within the program.

“Modularity is the property of a system that has been decomposed into a set of cohesive and loosely coupled modules.”

→INHERITANCE:-

"Inheritance is the capacity of one class of things to derive capabilities or properties from another class."

→POLYMORPHISM:-

Polymorphism is key to the power of object oriented programming. It is so important that languages that don't support polymorphism cannot advertise themselves as OO languages.

"Polymorphism is the ability for a message or data to be processed in more than one form."

DATA FILE HANDLING

Data file handling has been effectively usedin the program.

This program uses the concept of **object-oriented programming** and **data file handling.**

The database is a collection of interrelated data to serve multiple applications. That is database programs create files of information. So we see that files are worked with most, inside the program.

DBMS

The software required for the management of data is called as DBMS. It has 3 models

1. Relation model
2. Hierarchical model
3. Network model

→RELATIONAL MODEL

It's based on the concept on relation. Relation is the table that consists of rows and columns. The rows of the table are called tuple and the columns of the table are called attribute. Numbers of rows in the table is called as cardinality. Number of columns in the table is called as degree.

→HIERARCHICAL MODEL

In this type of model, we have multiple records for each record. A particular recordhas one parent
record. No chid record can exist without parent record. In this, the records are organized in tree (like structure).

→NETWORK MODEL:-

In this, the data is representedby collection of records and relationship is represented by (ink or association.

CHARACTERISTICS OF DBMS: -

i. It reduces the redundancy
ii. Reduction of data in inconsistency
iii. Data sharing
iv. Data standardization

DIFFERENT TYPES OF FILES----

→BASED ON ACCESS:-

i. Sequentialfile
ii. Serial file
iii. Random (direct access) file

→BASED ON STORAGE:-

i. Text file
ii. Binary File

REQUIREMENT TO RUN THE SOFTWARE

HARDWARE AND SOFTWARE REQUIRED

All this suggest that the choice **of a computer 486** or equivalent with about **250 MB Hard Disk** and about **8 to 16 MB RAM**, a line **printer** or a dot matrix printer and preferable a laser printer is optimum. The availability of sophisticated programming tool is imperative and thus a **C++** is chosen to program the system.

Having done this the next step is to carefully analyze the data, identity processing element and design appropriate data base file.

PROBLEM DESCRIPTION

REQUIREMENT ANALYSIS

We have studied the existing system in details. The finding of our study yields various pieces of information which are described in the following manner. For the **RAILWAY TICKET RESERVATION** and with other related modules of **SEAT RESERVATION**, we enter all the following details……

1. Book ticket
2. Display details of trains
3. Alter booked ticket
4. Avert booked ticket
5. Cancel ticket
6. Confirmation of seats
7. Details of trains
8. Choice of seats

REQUIRED OUTPUT OF THE SYSTEM

The computrised system generates the following reports as:

1. Train number
2. Total seats
3. Number of seats

4. Destination
   4.1 Starting point
   4.2 End point
5. Train name
6. Type of seat
   6.1 first class
   6.2 second class

SYSTEM SPECIFICATION

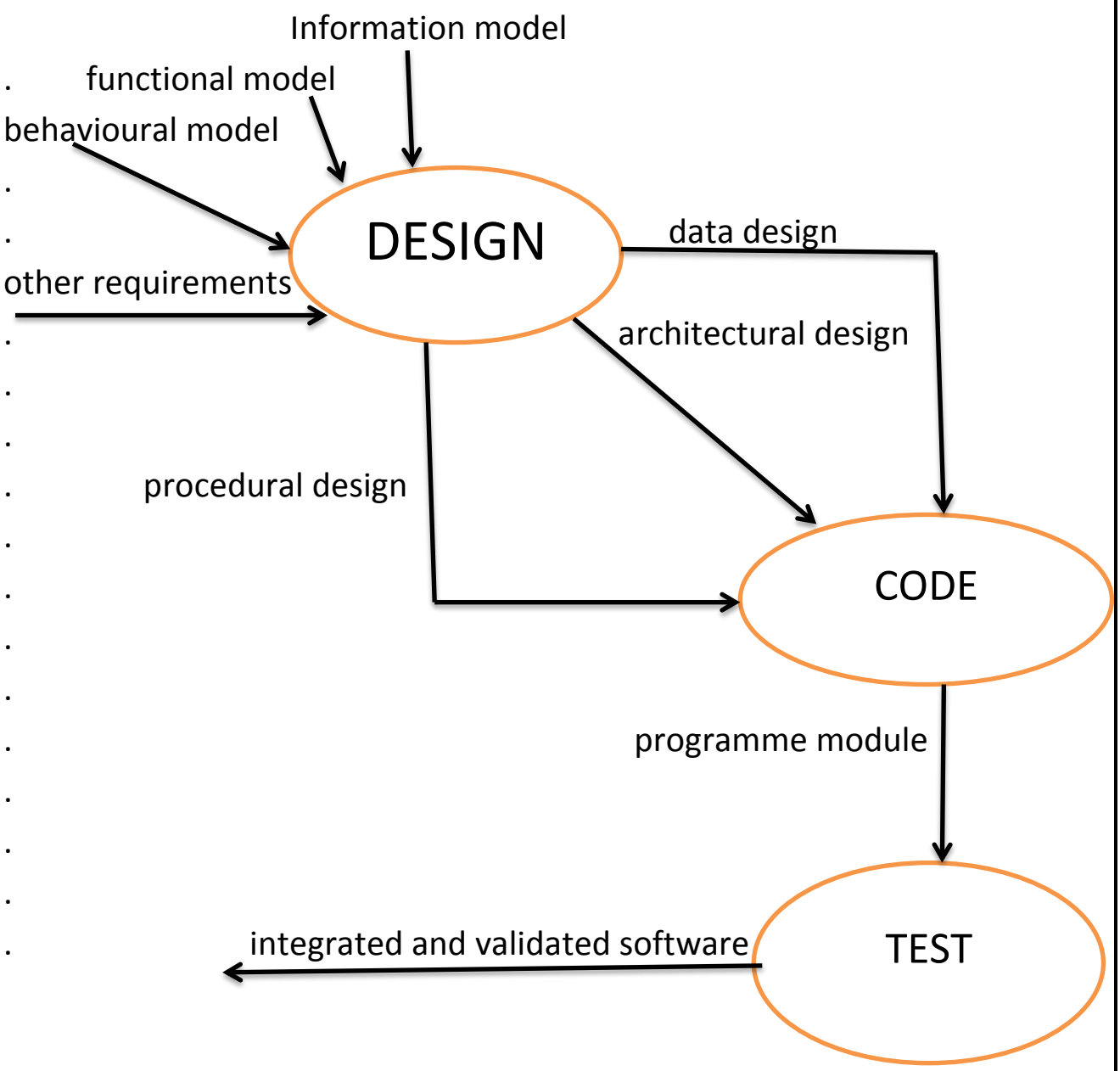
SYSTEM DESIGN

The importance of software design can be stated with a single word quality. Design is the place where quality is fostered in software development. Design provides us with respresentations of software engineering and maintenance steps that follow.

System design sits at the technical kernel of the software engineering process and is applied regardless of the development paradigm that is used. Once software requirements have been analyzed and specified, the software design is first of the three, technical activities- 'design', 'code', and 'test', that are required to program the software.

The flow of information during this technical phase of the software engineering process is illustrated in the figure given below:

FLOW CHART


Information model
functional model
behavioural model
DESIGN
data design
other requirements
architectural design
procedural design
CODE
programme module
TEST
integrated and validated software

DATA DESIGN

Data design is the first of the three design activities that are conducted during system development. The impact if data structure on program structure and procedural complexity causes data design to have a profound in the systems quality.

The data objects required by this system are listed below:

HEADER FILES

1. **FSTREAM.H** – for file handling, cin and cout Declares the C++ stream classes that support

file input and output. Replaces the older, now outdated STDIOSTR.H.

2. **CONIO.H** – for clrscr () and getch () functions

3. **STDIO.H** – for standard I/O operations

4. **STRING.H** – for string handling

5. **TIME.H** – for using time related function

6. **STDLIB.H –** for handling abs, exit functions

7. **IOMANIP.H** – Declares the C++ streams I/O manipulators and contains macros for creating paramaterized manipulators.

8. **IOSTREAM.H –** for handling cin and cout

DATA DICTIONARY & FILE DESIGN STRUCTURE

S.NO	DATA TYPE	VARIABLE NAME	USES
GLOBAL VARIABLES			
1	Float	tamt	Total amount
2	Int	d	Date
3	Int	m	Month
4	Int	i	to run the loops
5	Int	Amt	Amount
CLASS LOGIN()			
1	Char[]	Id	Email id
2	Char[]	Pass	Password
3	Char[]	password	Password
Class detail()			
1	Int	tno	Train number
2	char[]	tname	Train name
3	Char[]	bp	Boarding point
4	Char[]	dest	Destination point
5	Int	C1	No. of 1st class seats

6	Int	C1fare	Fare per ticket
7	Int	C2	No. of 2nd class seats
8	Int	C2fare	Fare per ticket
9	Int	D	Date of travel
10	Int	M	Month of travel
11	Int	Y	Year of travel
Class reser()			
1	Int	Pnr	Passanger no.
2	Int	Tno	Train no.
3	Char[]	Tname	Train name
4	Char[]	Bp	Boarding point
5	Char[]	Dest	Destination
6	Char[]	Pname	Passanger name
7	Int[]	Age	Passanger age
8	Char[]	Clas	Class of reservation
9	Int	Nosr	No. of seats
10	Int	I	Loop
11	Int	D	Date of travel
12	Int	M	Month of travel
13	Int	Y	Year of travel
14	Int	Con	Concession category
15	Float	amc	Amount paid
Class canc()			
1	Int	Pnr	Passanger no.

2	Int	Tno	Train no.
3	Char[]	Tname	Train name
4	Char[]	Bp	Boarding point
5	Char[]	Dest	Destination points
6	Char[][]	Pname	Passangers name
7	Int[]	Age	Passangers age
8	Int	I	Loop
9	Char[]	Clas	Class of reservation
10	Int	Nosc	No. of seats
11	Int	D	Date of cancel
12	Int	M	Month of cancel
13	Int	Y	Year of cancel
14	Float	Amr	Amount returned
Void main()			
1	Int	Ch	To enter the choice in menu driven
2	Char[]	Password	Password of admin
3	Char[]	C	To enter the choice in menu driven
4	Int	h	To move the cursor

PROGRAM SOURCE CODE

```
// A PROGRAM ON RAILWAY TICKET
RESERVATION

//HEADER FILES USED

#include<stdio.h>

#include<conio.h>

#include<stdlib.h>

#include<string.h>

#include<iostream.h>

#include<time.h>

#include<iomanip.h>

#include<fstream.h>

char f[10]=”f”;

char s[10]=”s”;

int addr,ad,flag,f1,d,m,i,amt;

float tamt;

// CLASS FOR ADMINISTRATOR’S USE

class login
```

```
{
public:
char id[100];
char pass[100];
char *password;
void getid()
{
cout<<”Enter your id:”;
gets(id);
password=getpass(“Enter the password:”);
strcpy(pass,password);
}
void displayid()
{
cout<<”Id:”;puts(id);
cout<<”Password:”;puts(pass);
}
```

```
};
/*CLASS TO ACCEPT INFORMATION ABOUT TRAIN AND TRAVEL*/
class detail
{
public:
int tno;
char tname[100];
char bp[100];
char dest[100];
int c1,c1fare;
int c2,c2fare;
int d,m,y;
void getdetail()
{
cout<<"Enter the details as follows\n";
cout<<"Train no:";
```

```
cin>>tno;
cout<<”Train name:”;
gets(tname);
cout<<”Boarding point:”;
gets(bp);
cout<<”Destination pt:”;
gets(dest);
cout<<”No of seats in first class & fare per ticket:”;
cin>>c1>>c1fare;
cout<<”No of seats in second class & fare per ticket:”;
cin>>c2>>c2fare;
cout<<”Date of travel:”;cin>>d>>m>>y;
}

void displaydetail()
```

```
{
cout<<tno<<"\t"<<tname<<"\t"<<bp<<"\t"<<dest
<<"\t";
cout<<c1<<"\t"<<c1fare<<"\t"<<c2<<"\t"<<c2fare
<<"\t";
cout<<d<<"-"<<m<<"-"<<y<<"\t"<<endl;
}
};
// CLOSE OF CLASS DETAILS
/*TO ACCEPT AND DISPLAY DETAILS OF
PASSANGER'S*/
class reser
{
public:
int pnr;
int tno;
char tname[100];
char bp[10];
```

```
char dest[100];
char pname[10][100];
int age[20];
char clas[10];
int nosr;
int i;
int d,m,y;
int con;
float amc;
void getresdet()
{
cout<<"Enter the details as follows\n";
cout<<"Train no:";
cin>>tno;
cout<<"Train name:";
gets(tname);
cout<<"Boarding point:";
```

```
gets(bp);
cout<<"Destination pt:";
gets(dest);
cout<<"No of seats required:";
cin>>nosr;
for(i=0;i<nosr;i++)
{
cout<<"Passenger name:";gets(pname[i]);
cout<<"Passenger age:";cin>>age[i];
}
cout<<"Enter the class f-first class s-second class:";
gets(clas);
cout<<"Date of travel:";cin>>d>>m>>y;
cout<<"Enter the concession category\n";
cout<<"1.Military\n2.Senior citizen\n";
cout<<"3.Children below 5 yrs\n4.None\n";
```

```
cin>>con;
cout<<"……END OF GETTING
DETAILS……\n";
}
void displayresdet()
{
cout<<"……..\n";
cout<<"……..\n";
cout<<"Pnr no:"<<pnr;
cout<<"\nTrain no:"<<tno;
cout<<"\nTrain name:";puts(tname);
cout<<"Boarding point:";puts(bp);
cout<<"Destination pt:";puts(dest);
cout<<"No of seats reserved:"<<nosr;
for(i=0;i<nosr;i++)
{
cout<<"Passenger name:";puts(pname[i]);
```

```
cout<<"Passenger age:"<<age[i];
}
cout<<"\nYour class:";puts(clas);
cout<<"\nDate of reservation:"<<d<<"-"<<m<<"-
"<<y;
cout<<"\nYour concession category:"<<con;
cout<<"\nYou must pay:"<<amc<<endl;
cout<<"**********************************
**********\n";
cout<<"……END OF RESERVATION……..\n";
cout<<"**********************************
**********\n";
}
};
// CLOSE OF CLASS RESER
/*CLASS TO CANCEL TICKETS PURCHASED*/
class canc
{
```

```
public:
int pnr;
int tno;
char tname[100];
char bp[10];
char dest[100];
char pname[10][100];
int age[20];
int i;
char clas[10];
int nosc;
int d,m,y;
float amr;
void getcancdet()
{
cout<<"Enter the details as follows\n";
cout<<"Pnr no:";cin>>pnr;
```

```
cout<<"Date of cancellation:";cin>>d>>m>>y;
cout<<".....END OF GETTING DETAILS.....\n";
}
void displaycancdet()
{
cout<<"..................................\n";
cout<<"..................................\n";
cout<<"Pnr no:"<<pnr;
cout<<"\nTrain no:"<<tno;
cout<<"\nTrain name:";puts(tname);
cout<<"Boarding point:";puts(bp);
cout<<"Destination pt:";puts(dest);
cout<<"\nYour class:";puts(clas);
cout<<"no of seats to be cancelled:"<<nosc;
for(i=0;i<nosc;i++)
{
cout<<"Passenger name:";puts(pname[i]);
```

```
cout<<"passenger age:"<<age[i];
}
cout<<"\nDate of cancellation:"<<d<<"-"<<m<<"-
"<<y;
cout<<"\nYou can collect:"<<amr<<"rs"<<endl;
cout<<"**********************************
*******\n";
cout<<".....END OF CANCELLATION.....\n";
cout<<"**********************************
*******\n";
}
};
void manage();
void can();
void user();
void database();
void res();
void reserve();
```

```
void displaypassdetail();
void cancell();
void enquiry();
// CLOSE OF CLASS CANC
/*MAIN PROGRAM LOGIC WHICH CONTROL THE
CLASS MEMBERS AND MEMBER FUNCTIONS*/
void main()
{
clrscr();
int ch;
cout<<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~\n";
cout<<".....WELCOME TO RAILWAY RESERVATION SYSTEM.....\n";
cout<<"~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~\n";
do
{
```

```
cout<<"^^^^^^^^^^^^^^^^^^^^^^^^MAIN
MENU^^^^^^^^^^^^^^^^^^^^\n";
cout<<"1.Admin mode\n2.User mode\n3.Exit\n";
cout<<"Enter your choice:";
cin>>ch;
cout<<endl;
//#####################################
// SWITCH CASE STARTED
// MENU DRIVEN
//#####################################
switch(ch)
{
case 1:
    database();
    break;
case 2:
    user();
```

```
    break;
case 3:
   exit(0);
}
}while(ch<=3);
getch();
}
void database()
{
char *password;
char *pass=”abc”;
password=getpass(“Enter the admininistrator password:”);
detail a;
fstream f;
int ch;
char c;
```

```
if(strcmp(pass,password)!=0)
{
cout<<"Enter the password correctly \n";
cout<<"You are not permitted to logon this mode\n";
goto h;
}
if(strcmp(pass,password)==0)
{
char c;
do
{
cout<<".....ADMINISTRATOR MENU.....\n";
cout<<"1.Create detail data base\n2.Add details\n";
cout<<"3.Display details\n4.User management\n";
```

```
cout<<”5.Display passenger details\n6.Return to
main menu\n”;
cout<<”Enter your choice:”;
cin>>ch;
cout<<endl;
switch(ch)
{
case 1:
f.open(“t.txt”,ios::out|ios::binary);
do
{
a.getdetail();
f.write((char *) & a,sizeof(a));
cout<<”Do you want to add one more record?\n”;
cout<<”y-for Yes\nn-for No\n”;
cin>>c;
}while(c==’y');
```

```
f.close();
break;
case 2:
f.open(“t.txt”,ios::in|ios::out|ios::binary|ios::app)
;
a.getdetail();
f.write((char *) & a,sizeof(a));
f.close();
break;
case 3:
f.open(“t.txt”,ios::in|ios::out|ios::binary|ios::app)
;
f.seekg(0);
while(f.read((char *) & a,sizeof(a)))
{
a.displaydetail();
}
```

```
f.close();
break;
case 4:
manage();
break;
case 5:
displaypassdetail();
break;
}
}while(ch<=5);
f.close();
}
h:
}
void reserve()
{
int ch;
```

```
do
{
cout<<”1.Reserve\n2.Return to the main
menu\n”;
cout<<”Enter your choice:”;
cin>>ch;
cout<<endl;
switch(ch)
{
case 1:
res();
break;
}
}while(ch==1);
getch();
}
void res()
```

```
{
detail a;
reser b;
fstream f1,f2;
time_t t;
f1.open(“t.txt”,ios::in|ios::out|ios::binary);
f2.open(“p.txt”,ios::in|ios::out|ios::binary|ios::ap
p);
int ch;
b.getresdet();
while(f1.read((char *) &a,sizeof(a)))
{
if(a.tno==b.tno)
{
if(strcmp(b.clas,f)==0)
{
if(a.c1>=b.nosr)
```

```
{
amt=a.c1fare;
addr=f1.tellg();
ad=sizeof(a.c1);
f1.seekp(addr-(7*ad));
a.c1=a.c1-b.nosr;
f1.write((char *) & a.c1,sizeof(a.c1));
if(b.con==1)
{
cout<<"Concession category:MILITARY
PERSONNEL\n";
b.amc=b.nosr*((amt*50)/100);
}
else if(b.con==2)
{
cout<<"Concession category:SENIOR CITIZEN\n";
b.amc=b.nosr*((amt*60)/100);
```

```
}
else if(b.con==3)
{
cout<<"Concession category:CHILDERN BELOW FIVE\n";
b.amc=0.0;
}
else if(b.con==4)
{
cout<<"You cannot get any concession\n";
b.amc=b.nosr*amt;
}
srand((unsigned) time(&t));
b.pnr=rand();
f2.write((char *) & b,sizeof(b));
b.displayresdet();
```

```
cout<<"————————————————————————
\n";
cout<<"—————Your ticket is reserved————–
\n";
cout<<"———————End of reservation menu——-
\n";
}
else
{
cout<<"**********Sorry req seats not
available********\n";
}
}
else if(strcmp(b.clas,s)==0)
{
if(a.c2>=b.nosr)
{
amt=a.c2fare;
```

```
addr=f1.tellg();
ad=sizeof(a.c2);
f1.seekp(addr-(5*ad));
a.c2=a.c2-b.nosr;
f1.write((char *) & a.c2,sizeof(a.c2));
if(b.con==1)
{
cout<<"Concession category:MILITARY
PRESONNEL\n";
b.amc=b.nosr*((amt*50)/100);
}
else if(b.con==2)
{
cout<<"Concession category:SENIOR CITIZEN\n";
b.amc=b.nosr*((amt*60)/100);
}
else if(b.con==3)
```

```
{
cout<<"Concession category:CHILDERN BELOW FIVE\n";
b.amc=0.0;
}
else if(b.con==4)
{
cout<<"You cannot get any concession\n";
b.amc=b.nosr*amt;
}
f2.write((char *) & b,sizeof(b));
b.displayresdet();
cout<<"————————————————\n";
cout<<"———Your ticket is reserved———\n";
cout<<"—————End of reservation———\n";
}
else
```

```
{
cout<<"********Sorry req no of seats not
available*******\n";
}
}
getch();
goto h;
}
else
{
flag=0;
}
}
if(flag==0)
{
cout<<"……Wrong train no……\n";
```

```
cout<<"……Enter the train no from the data
base…..\n";
}
f1.close();
f2.close();
getch();
h:
}
void displaypassdetail()
{
fstream f;
reser b;
f.open("p.txt",ios::in|ios::out|ios::binary);
f.seekg(0);
while(f.read((char *) & b,sizeof(b)))
{
b.displayresdet();
```

```
}
f.close();
getch();
}
void enquiry()
{
fstream f;
f.open("t.txt",ios::in|ios::out|ios::binary);
detail a;
while(f.read((char *) & a,sizeof(a)))
{
a.displaydetail();
}
getch();
}
void cancell()
{
```

```
detail a;
reser b;
canc c;
fstream f1,f2,f3;
f1.open("t.txt",ios::in|ios::out|ios::binary);
f2.open("p.txt",ios::in|ios::out|ios::binary);
f3.open("cn.txt",ios::in|ios::out|ios::binary);
cout<<"**********CANCELLATION MENU*********\n";
c.getcancdet();
while(f2.read((char *) & b,sizeof(b)))
{
if(b.pnr==c.pnr)
{
c.tno=b.tno;
strcpy(c.tname,b.tname);
strcpy(c.bp,b.bp);
```

```
strcpy(c.dest,b.dest);
c.nosc=b.nosr;
for(int j=0;j<c.nosc;j++)
{
strcpy(c.pname[j],b.pname[j]);
c.age[j]=b.age[j];
}
strcpy(c.clas,b.clas);
if(strcmp(c.clas,f)==0)
{
while(f1.read((char *) & a,sizeof(a)))
{
if(a.tno==c.tno)
{
a.c1=a.c1+c.nosc;
d=a.d;
m=a.m;
```

```
addr=f1.tellg();
ad=sizeof(a.c1);
f1.seekp(addr-(7*ad));
f1.write((char *) & a.c1,sizeof(a.c1));
tamt=b.amc;
if((c.d==d)&&(c.m==m))
{
cout<<"You are cancelling at the date of departure\n";
c.amr=tamt-((tamt*60)/100);
}
else if(c.m==m)
{
cout<<"You are cancelling at the month of departure\n";
c.amr=tamt-((tamt*50)/100);
}
```

```
else if(m>c.m)
{
cout<<"You are cancelling one month before the date of departure\n";
c.amr=tamt-((tamt*20)/100);
}
else
{
cout<<"Cancelling after the departure\n";
cout<<"Your request cannot be completed\n";
}
goto h;
c.displaycancdet();
}
}
}
else if(strcmp(c.clas,s)==0)
```

```
{
while(f1.read((char *) & a,sizeof(a)))
{
if(a.tno==c.tno)
{
a.c2=a.c2+c.nosc;
d=a.d;
m=a.m;
addr=f1.tellg();
ad=sizeof(a.c2);
f1.seekp(addr-(5*ad));
f1.write((char *) & a.c2,sizeof(a.c2));
tamt=b.amc;
if((c.d==d)&&(c.m==m))
{
cout<<"You are cancelling at the date of
departure\n";
```

```
c.amr=tamt-((tamt*60)/100);
}
else if(c.m==m)
{
cout<<"You are cancelling at the month of departure\n";
c.amr=tamt-((tamt*50)/100);
}
else if(m>c.m)
{
cout<<"You are cancelling one month before the date of departure\n";
c.amr=tamt-((tamt*20)/100);
}
else
{
cout<<"Cancelling after the departure\n";
```

```
cout<<"Your request cannot be completed\n";
}
goto h;
c.displaycancdet();
}
}
}
}
else
{
flag=0;
}
}
h:
if(flag==0)
{
cout<<"Enter the correct pnr no\n";
```

```
}
f1.close();
f2.close();
f3.close();
getch();
}
void can()
{
int ch;
do
{
cout<<"……..CANCELLATION MENU……\n";
cout<<"1.Cancell\n2.Return to the main menu\n";
cout<<"Enter your choice:";
cin>>ch;
cout<<endl;
switch(ch)
```

```
{
case 1:
cancell();
break;
}
}while(ch==1);
getch();
}
void user()
{
login a;
int ch;
cout<<"**********************************
**********\n";
cout<<"**********WELCOME TO THE USER
MENU**\n";
cout<<"**********************************
**********\n";
```

```
char *password;
fstream f;
f.open("id.txt",ios::in|ios::out|ios::binary);
char id[100];
puts("Enter your id:");gets(id);
password=getpass("Enter your password:");
while(f.read((char *) & a,sizeof(a)))
{
if((strcmp(a.id,id)==0)&&(strcmp(a.pass,password
)==0))
{
do
{
cout<<"1.Reserve\n2.Cancell\n3.Enquiry\n4.Retur
n to the main menu\n";
cout<<"Enter your choice:";
cin>>ch;
```

```
cout<<endl;
switch(ch)
{
case 1:
reserve();
break;
case 2:
cancell();
break;
case 3:
enquiry();
break;
}
}while(ch<=3);
goto j;
}
else
```

```
{
d=1;
}
}
if(d==1)
{
cout<<"Enter your user id and password
correctly\n";
}
getch();
j:
}
void manage()
{
int ch;
fstream f;
char c;
```

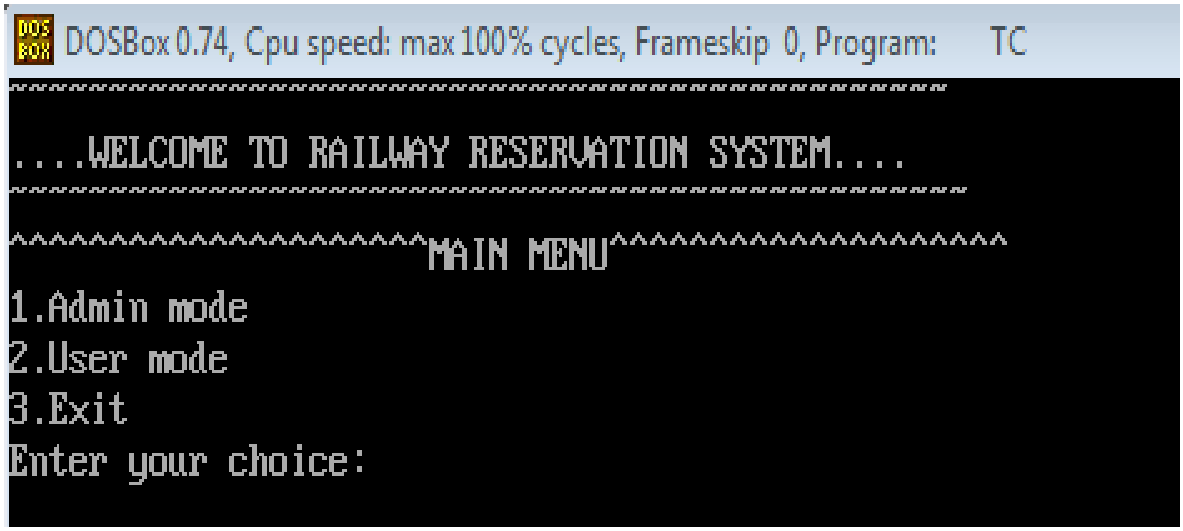
```
login a;
cout<<"……WELCOME TO THE USER MANAGEMENT MENU……..\n";
do
{
cout<<"1.Create id data base\n2.Add details\n";
cout<<"3.Display details\n4.Return to the main menu\n";
cout<<"Enter your choice:";
cin>>ch;
cout<<endl;
switch(ch)
{
case 1:
f.open("id.txt",ios::out|ios::binary);
do
{
```

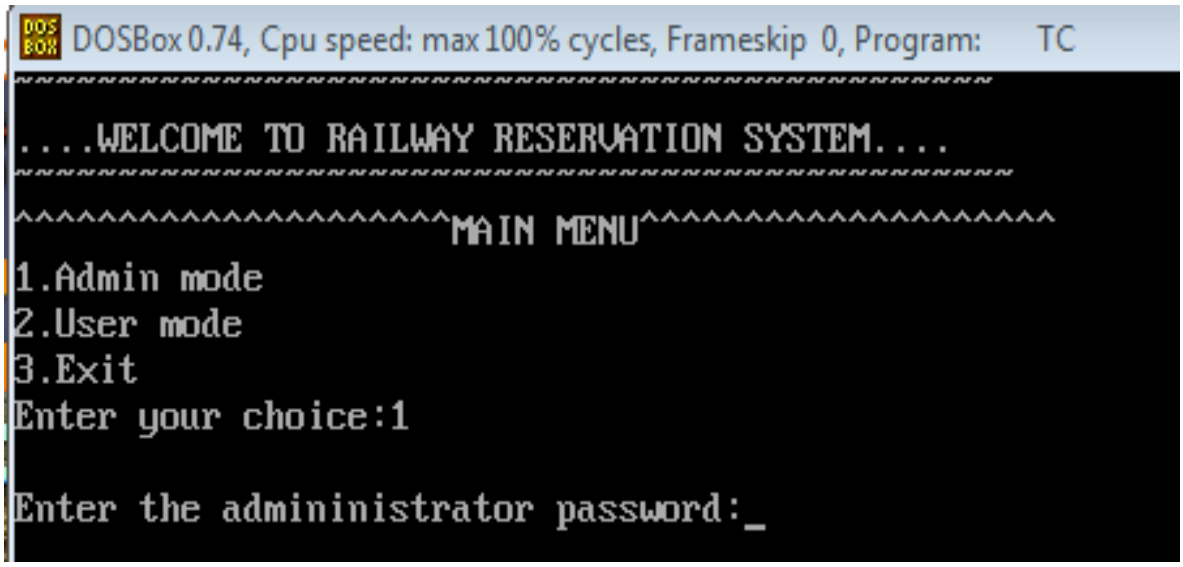
```
a.getid();
f.write((char *) & a,sizeof(a));
cout<<”Do you want to add one more record\n”;
cout<<”y-Yes\nn-No\n”;
cin>>c;
}while(c==’y');
f.close();
break;
case 2:
f.open(“id.txt”,ios::in|ios::out|ios::binary|ios::app
);
a.getid();
f.write((char *) & a,sizeof(a));
f.close();
break;
case 3:
f.open(“id.txt”,ios::in|ios::out|ios::binary);
```

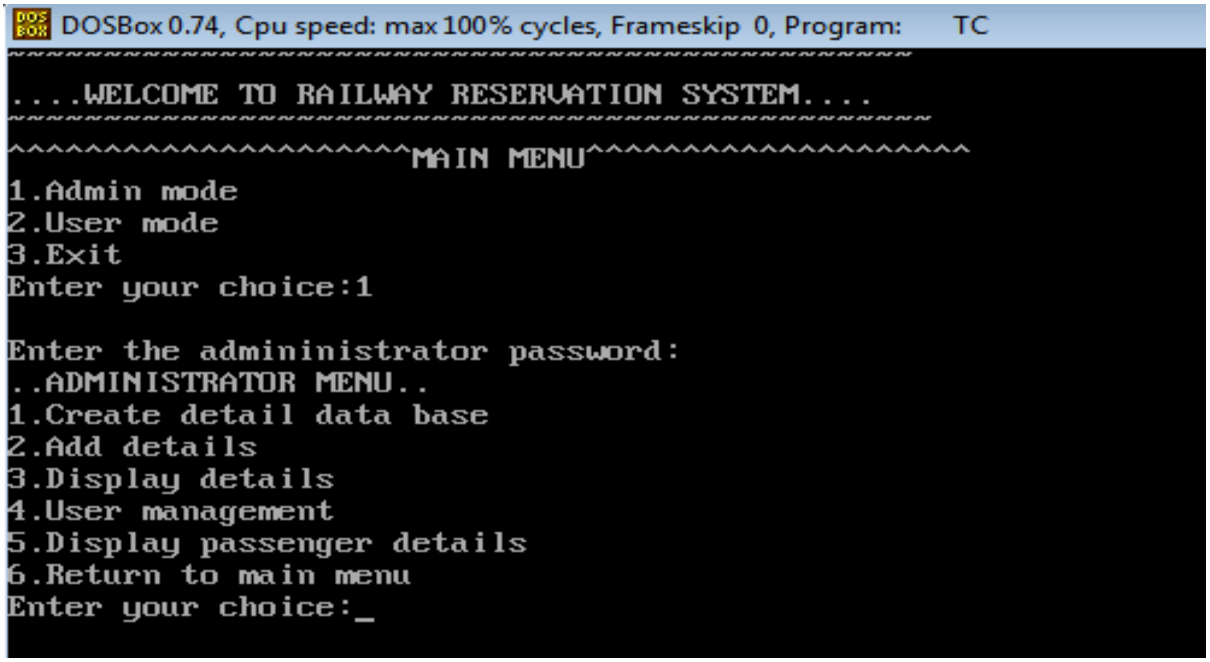
```
f.seekg(0);
while(f.read((char *) & a,sizeof(a)))
{
a.displayid();
}
f.close();
break;
}
}while(ch<=3);
getch();
}
// end of program
```

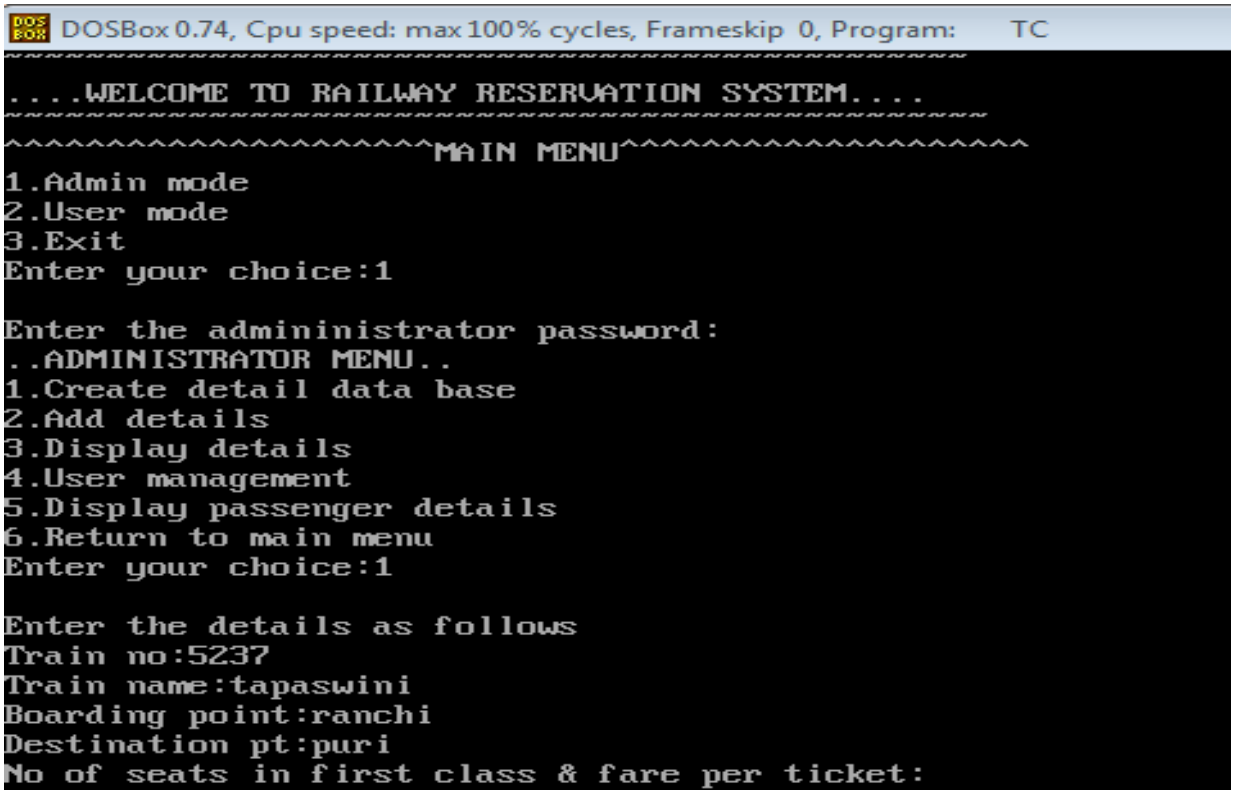
OUTPUT

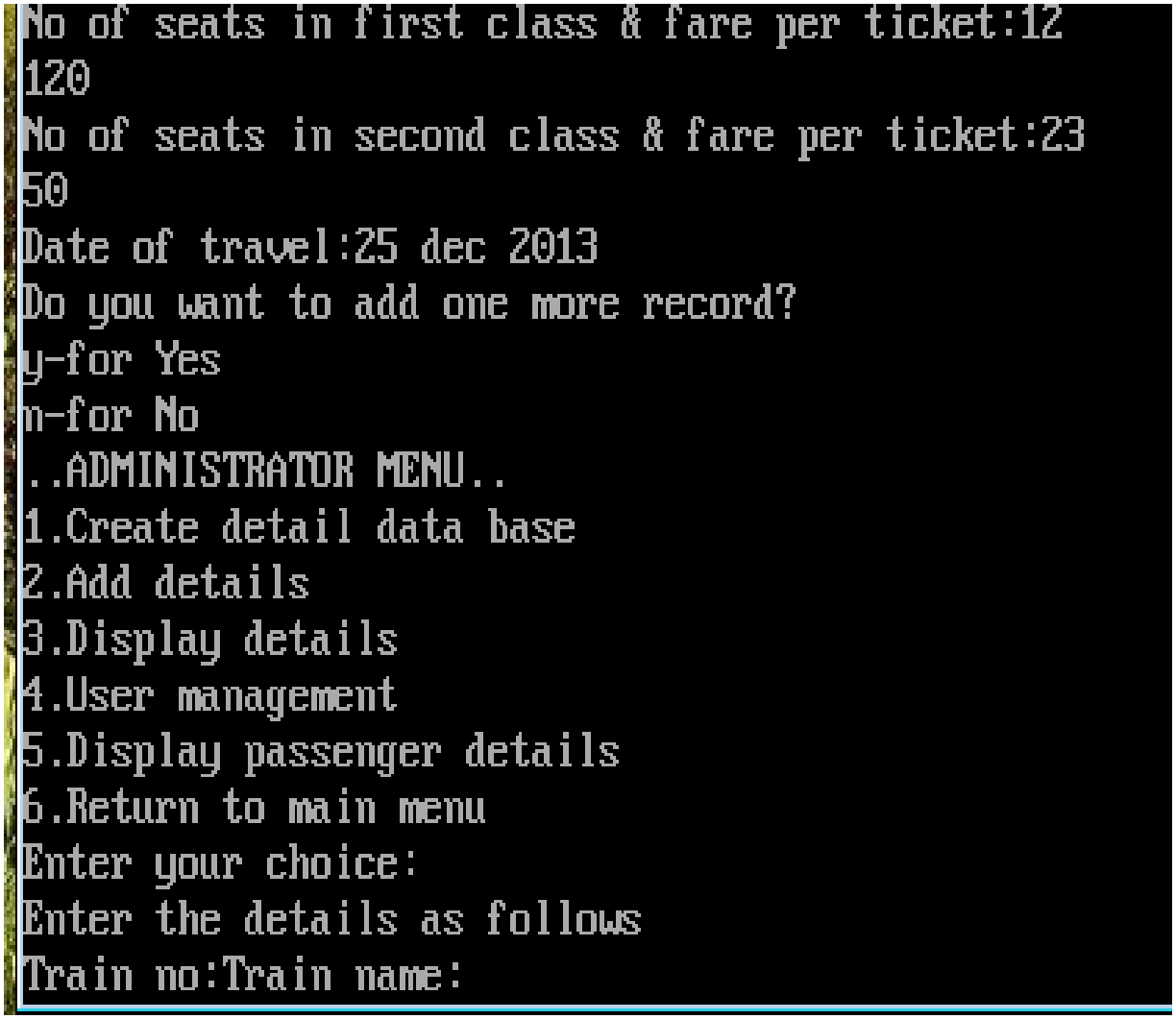
OUTPUT:


DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
....WELCOME TO RAILWAY RESERVATION SYSTEM....
MAIN MENU
1.Admin mode
2.User mode
3.Exit
Enter your choice:


DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
....WELCOME TO RAILWAY RESERVATION SYSTEM....
MAIN MENU
1.Admin mode
2.User mode
3.Exit
Enter your choice:1
Enter the admininistrator password:


DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
....WELCOME TO RAILWAY RESERVATION SYSTEM....
^^^^^^^^^^^^^^^^^^^^^^^^MAIN MENU^^^^^^^^^^^^^^^^^^^^^^^^
1.Admin mode
2.User mode
3.Exit
Enter your choice:1
Enter the admininistrator password:
..ADMINISTRATOR MENU..
1.Create detail data base
2.Add details
3.Display details
4.User management
5.Display passenger details
6.Return to main menu
Enter your choice:_


DOSBox 0.74, Cpu speed: max 100% cycles, Frameskip 0, Program: TC
....WELCOME TO RAILWAY RESERVATION SYSTEM....
^^^^^^^^^^^^^^^^^^^^^^^^MAIN MENU^^^^^^^^^^^^^^^^^^^^^^^^
1.Admin mode
2.User mode
3.Exit
Enter your choice:1
Enter the admininistrator password:
..ADMINISTRATOR MENU..
1.Create detail data base
2.Add details
3.Display details
4.User management
5.Display passenger details
6.Return to main menu
Enter your choice:1
Enter the details as follows
Train no:5237
Train name:tapaswini
Boarding point:ranchi
Destination pt:puri
No of seats in first class & fare per ticket:


No of seats in first class & fare per ticket:12
120
No of seats in second class & fare per ticket:23
50
Date of travel:25 dec 2013
Do you want to add one more record?
y-for Yes
n-for No
..ADMINISTRATOR MENU..
1.Create detail data base
2.Add details
3.Display details
4.User management
5.Display passenger details
6.Return to main menu
Enter your choice:
Enter the details as follows
Train no:Train name:

~~~~~~

.....WELCOME TO RAILWAY RESERVATION SYSTEM.....

~~~~~~

^^^^^^^^^^^^^^^^^^^^^^MAIN

MENU^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

1.Admin mode

2.User mode

3.Exit

Enter your choice: 1

Enter the administrator password: *********

enter the password correctly

you are not permitted to logon this mode

^^^^^^^^^^^^^^^^^^^^^^MAIN

MENU^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

1.Admin mode

2.User mode

3.Exit

Enter your choice: 1

Enter the administrator password: *********

.....ADMINISTRATOR MENU.....

1. Create detail data base

2.Add details

3.Display details

4.User management

5.Display passenger details

6.Return to main menu

Enter your choice: 1

Enter the details as follows

Train no: 123

Train name: TAPASWINI express

Boarding point: RANCHI

Destination pt.: PURI

No of seats in first class & fare per ticket: 100 200

No of seats in second class & fare per ticket: 200 100

Date of travel: 25 12 2013

Do you want to add one more record?

y-for Yes

n-for No

y

Enter the details as follows

Train no: 124

Train name: SHAPDI EXPRESS

Boarding point: RANCHI

Destination pt.: CHENNAI

No of seats in first class & fare per ticket: 300 200

No of seats in second class & fare per ticket: 200 300

Date of travel: 26 12 2013

Do you want to add one more record?

y-for Yes

n-for No

n

.....ADMINISTRATOR MENU.....

1.Create detail data base

2.Add details

3.Display details

4.User management

5.Display passenger details

6.Return to main menu

Enter your choice: 2

Enter the details as follows

Train no: 126

Train name: TILAK EXPRESS

Boarding point: MUMBAI

Destination pt.: THANE

No of seats in first class & fare per ticket: 200 300

No of seats in second class & fare per ticket: 300 200

Date of travel: 27 12 2013

.....ADMINISTRATOR MENU.....

1.Create detail data base

2.Add details

3.Display details

4.User management

5.Display passenger details

6.Return to main menu

Enter your choice: 3

Trno Trname Bpt Dest Fs Ffare Ss Sfare Date of DEPARTURE

123 TAPASWINI EXPRESS RANCHI PURI 100 200 200 100 25-12-2013

124 SHABDI EXPRESS RANCHI CHENNAI 300 200 200 300 26-12-2013

126 TILAK EXPRESS MUMBAI THANE 200 300 300 200 27-12-2013

.....ADMINISTRATOR MENU.....

1.Create detail data base

2.Add details

3.Display details

4.User management

5.Display passenger details

6.Return to main menu

Enter your choice: 4

.....WELCOME TO THE USER MANAGEMENT MENU.....

1. Create id data base

2.Add details

3.Display details

4.Return to the main menu

Enter your choice: 1

Enter your id: PAWAN

Enter the password:***

Do you want to add one more record

y-Yes

n-No

y

Enter your id: JAY

Enter the password:********

Do you want to add one more record

y-Yes

n-No

y

Enter your id: SARANG

Enter the password:******

Do you want to add one more record

y-Yes

n-No

y

Enter your id: XYZ

Enter the password:*******

Do you want to add one more record

y-Yes

n-No

n

1. Create id data base

2.Add details

3.Display details

4.Return to the main menu

Enter your choice:2

Enter your id: ABC

Enter the password:*******

1.Create id data base

2.Add details

3.Display details

4.Return to the main menu

Enter your choice:3

Id: PAWAN

Password:11111111

Id: JAY

Password:22222222

Id: SARANG

Password:33333333

Id: XYZ

Password:44444444

Id: ABC

Password:55555555

Id:

Password:66666666

1.Create id data base

2.Add details

3.Display details

4.Return to the main menu

Enter your choice:4

. ...ADMINISTRATOR MENU.........................

1.Create detail data base

2.Add details

3.Display details

4.User management

5.Display passenger details

6.Return to main menu

Enter your choice:5

.

..............................ADMINISTRATOR MENU....................................

1.Create detail data base

2.Add details

3.Display details

4.User management

5.Display passenger details

6.Return to main menu

Enter your choice:6

^^^^^^^^^^^^^^^^^^^^^^MAIN

MENU^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

1.Admin mode

2.User mode

3.Exit

Enter your choice:2

****

*****

**********WELCOME TO THE USER MENU**********

****

*****

Enter your id:

ashwin

Enter your password:*********

Enter your user id and password correctly

^^^^^^^^^^^^^^^^^^^^^^MAIN MENU^^^^^^^^^^^^^^^^^^^^^^

1.Admin mode

2.User mode

3.Exit

Enter your choice:2

****

***

**********WELCOME TO THE USER MENU**********

****

***

Enter your id:

ashwin

Enter your password:*********

1.Reserve

2.Cancell

3.Enquiry

4.Return to the main menu

Enter your choice:1

1.Reserve

2.Return to the main menu

Enter your choice:1

Enter the details as follows

Train no:123

Train name: TAPASWINI

Boarding point: RANCHI

Destination point: PURI

No of seats required:10

Passenger name: RAJA

Passenger age: 45

Passenger name: RAGHU

Passenger age: 32

Passenger name: RAVI

Passenger age: 34

Passenger name: VINOD

Passenger age: 23

Passenger name: RAJU

Passenger age: 24

Passenger name: LATA

Passenger age: 45

Passenger name: MALA

Passenger age: 23

Passenger name: VIMILA

Passenger age: 32

Passenger name: KANAK

Passenger age: 12

Passenger name: KASHISH

Passenger age: 43

Enter the class f-first class s-second class :f

Date of travel: 25 12 2013

Enter the concession category

1.Military

2.Senior citizen

3.Children below 5 yrs.

4.None

4

.....END OF GETTING DETAILS.....

You cannot get any concession

.....

.....

Pnr no:10770

Train no:123

Train name: TAPASWINI

Boarding point: RANCHI

Destination point: PURI

No of seats reserved: 10 Passenger name: RAJA

Passenger age:45Passenger name: RAGHU

Passenger age:32Passenger name: RAVI

Passenger age:34Passenger name: VINOD

Passenger age:23Passenger name: RAJU

Passenger age:24Passenger name: LATA

Passenger age:45Passenger name: MALA

Passenger age:23Passenger name: VIMILA

Passenger age:32Passenger name: KARTIK

Passenger age:12Passenger name: KASHISH

Passenger age:43

Your class :f

Date of reservation: 25 12 2013

Your concession category:4

You must pay:2000

****

****

.....END OF

RESERVATION.....

****

****

_____

————————-Your ticket is reserved————————

————————End of reservation menu————————-

1.Reserve

2.Return to the main menu

Enter your choice:2

1. Reserve

2.Cancell

3.Enquiry

4.Return to the main menu

Enter your choice: 3

Trno Trname Bpt Dest Fs Ffare Ss Sfare Date of dep

123 TAPASWINI EXPRESS RANCHI PURI 90 200 200 100 25-12-2013

124 SHAPDI EXPRESS RANCHI CHENNAI 300 200 200 300 26-12-2013

126 TILAK EXPRESS MUMBAI THANE 200 300 300 200 27-12-2013

1. Reserve

2.Cancell

3.Enquiry

4.Return to the main menu

Enter your choice: 2

**********CANCELLATION MENU**********

Enter the details as follows

Pnr no: 10770

Date of cancellation: 25-12-2013

.....END OF GETTING DETAILS.....

You are cancelling at the date of departure

.....

.....

Pnr no:10770

Train no:123

Train name: TAPASWINI

Boarding point: RANCHI

Destination point: PURI

Your class: f

no of seats to be cancelled:10

Passenger name: raja passenger age: 45

Passenger name: ragu passenger age: 32

Passenger name: Ravi passenger age: 34

Passenger name: vinod passenger age: 23

Passenger name: raju passenger age: 24

Passenger name: latha passenger age:45

Passenger name: mala passenger age: 23

Passenger name: vimila passenger age: 32

Passenger name: kashish passenger age: 12

Passenger name: kanak passenger age: 43

Date of cancellation: 25-12-2013

You can collect: 800 rs

****

...................................END OF CANCELLATION.................................

****

1.Reserve

2.Cancell

3.Enquiry

4.Return to the main menu

Enter your choice:2

****************************CANCELLATION MENU******************************

Enter the details as follows

Pnr no:12234

Date of cancellation: 25-12-2013

............................END OF GETTING DETAILS.......................................

Enter the correct pnr no

1. Reserve

2.Cancell

3.Enquiry

4.Return to the main menu

Enter your choice: 3

Trno Trname Bpt Dest Fs Ffare Ss Sfare Date of dep

123 tapaswini exp Ranchi puri 100 200 200 100 25-12-2013

124 shapdi exp Ranchi chennai 300 200 200 300 26-12-2013

126 tilak Mumbai thane 200 300 300 200 4-3-2009

1. Reserve

2.Cancell

3.Enquiry

4.Return to the main menu

Enter your choice: 3

Trno Trname Bpt Dest Fs Ffare Ss Sfare Date of dep

123 tapaswini exp Ranchi puri 100 200 200 100 25-12-2013

124 shapdi exp Ranchi chennai 300 200 200 300 26-12-2013

126 tilak exp Mumbai thane 200 300 300 200 27-12-2013

1. Reserve

2.Cancell

3.Enquiry

4.Return to the main menu

Enter your choice: 1

1.Reserve

2.Return to the main menu

Enter your choice:1

Enter the details as follows

Train no:12345

Train name: shapdi

Boarding point: Ranchi

Destination pt: chennai

No of seats required:1

Passenger name :raja

Passenger age:23

Enter the class f-first class s-second class:f

Date of travel: 26-12-2013

Enter the concession category

1.Military

2.Senior citizen

3.Children below 5 yrs.

4.None

4

.....END OF GETTING DETAILS.....

.....Wrong train no.....

.....Enter the train no from the data base.....

1.Reserve

2.Return to the main menu

Enter your choice:2

1.Reserve

2.Cancell

3.Enquiry

4.Return to the main menu

Enter your choice:4

^^^^^^^^^^^^^^^^^^^^^^^^MAIN MENU^^^^^^^^^^^^^^^^^^^^^^^^

1.Admin mode

2.User mode

3.Exit

^^^^^^^^^^^^^^^^^^^^^^^^MAIN MENU^^^^^^^^^^^^^^^^^^^^^^^^

1.Admin mode

2.User mode

3.Exit

Enter your choice:1

Enter the admininistrator password:*********

.....ADMINISTRATOR MENU.....

1.Create detail data base

2.Add details

3.Display details

4.User management

5.Display passenger details

6.Return to main menu

Enter your choice:5

. .....ADMINISTRATOR MENU.....

1.Create detail data base

2.Add details

3.Display details

4.User management

5.Display passenger details

6.Return to main menu

Enter your choice:6

^^^^^^^^^^^^^^^^^^^^^^^^MAIN MENU^^^^^^^^^^^^^^^^^^^^^^^^

1.Admin mode

2.User mode

3.Exit

Enter your choice:3

FUTURE SCOPE

The software made on RAILWAY TICKET RESERVATION is made and designed in so and such a way that it depicts the real world happenings. The way railway tickets are reserved in the railway counter, in the same way this software performs the task. By the help of this software we can reserve the tickets or rather cancel the tickets. Every thing done at the railway ticket counter is done by this software. This software keeps track of under age passengers and facilitates concession on the amount of ticket to those passengars who ar give concession by the government like military, other high officials etc.

In future this software will be modified and will be rearranged in so and such a way that people can book, reserve, and even cancel the tickets by the means of internet and even mobile phones booking can be done. The payments can be done by cash, cheque, DD, e-banking, mobile banking can be done. This software can allow sometime for bulk booking after submitting the application forms online which is a time taking work now a days. Seats of different class and coaches can be given as per the choice of passangers. This software will be connected by the help of internet nation wide so as to know the status of tickets and other

informations by different railways ticket counters at different corners of the nation.

The tickets can be given by taking UID card number or pan card number or by using voter ID card. This can facilitates easy and safe travelling of passengers and if undone and unkempt by any traveller, they can be easily caught.

Like wise with change in time and date this software will be modified and necessary changes can be made on the software to meet the requirement of people and easy and smooth functioning of the systems and softwares.

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