ONLINE RAILWAY RESERVATION

A Case study Report Submitted For Problem Solving And Programming With C

BY

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1. INTRODUCTION

Railway reservation system is developed for to automate the railways reservation system. It includes modules required to successfully operate railways reversion process smoothly. It has train master to add modified train information, train schedule to enter train journey details include all the station name, arrival time and departure time. It includes automatic fair calculation as per the distance between two stations. Reservation module consists of automatic seat number and coaches no allocation system. Daily schedule for updating of not conform seat and coach no. All master like train master, Train schedule, reservation fees, cancellation fees, charges can be modified individually from front end and changes reflect in all modules immediately. Therefore proposed “Railway reservation system” has been designed to automate the process of railway for ticket reservation and back office activities. System can make the daily activities efficient and provide the fast response.

The “Railway reservation system” has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for a particular need of a company to carry out operations in a smooth and effective manner. The application is reduced has much as possible to avoid errors while entering the data. It also provides error messages while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user friendly. Railway reservation system, has described, can lead to error free, and secure, reliable and fast managing system. It can assist the user to concentrate on the other activities rather to concentrate on the record keeping.

Thus it will help organization in better utilization of resources. Every organization, whether big or small, has challenges to overcome and managing the information of ticket, train, customer, seat, payment. Every Railway reservation system has different train needs, therefore we designed exclusive employee management systems that are adopted to your managerial requirements.

2)PURPOSE

The purpose of the source is to describe the railway reservation system which provides thetrain timing details, reservation, billing and cancellation on various types of reservation mainly,

- Conform reservation for conform seat.
- Reservation against cancellation.

- Waiting list reservation.
- Online reservation.
- Tatkal reservation.

3)SCOPE

It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of the past year perfectly and vividly. It also helps in current all works related to railway reservation system. It will be also reduced the cost of collecting the management and collection procedure will go on smoothly.

4)STUDY OF EXISTING SYSTEM

In the existing system the exams are done only manually but in proposed system we have to computerize the exams using this application.

- Lack of security of Data.
- More man power.
- Time consuming.
- Consumes large volume of pare work
- Needs manual calculations.
- No direct role for the higher officials

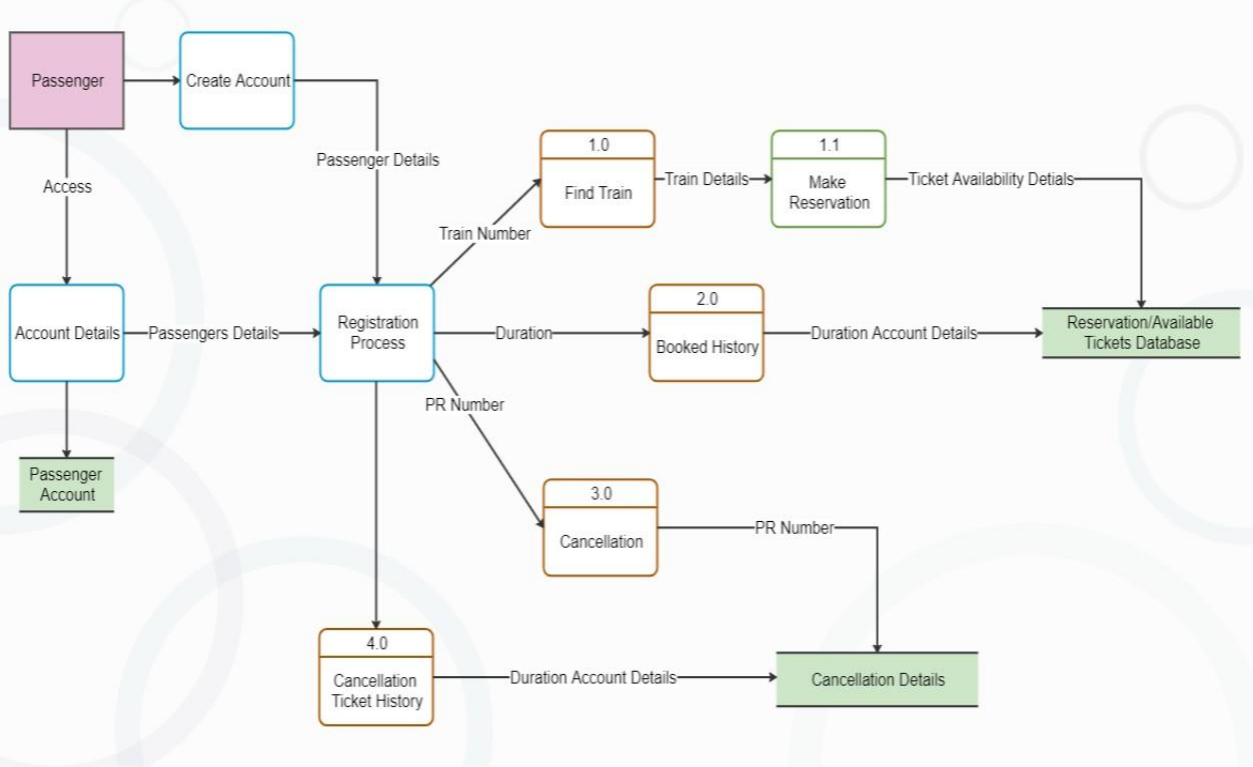
5)PROPOSED SYSTEM

The aim of the proposed system is to develop a system of improved facilities. The proposedsystem can overcome all the limitations of the existing system. The system provides propersecurity and reduces the manual work.

- Security of data.
- Ensure data accuracy’s
- Proper control of the higher officials.
- Minimize manual data entry.
- Minimum time needed for the various processing.

- Greater efficiency.
- Better service.
- User friendliness and interactive.

6)BLOCK DIAGRAM



7)IMPLEMENTATION /CODING

```
#include<stdio.h>
#include<conio.h> #include<stdlib.h>
#include<string.h>


typedef struct
{
 char name[50];  int
train_num;  int
num_of_seats;
```

```
} pd;

void reservation (void); void viewdetails (void); void cancel
(void); void printticket (char name[], int, int, float); void
specifictrain (int); float charge (int, int); void login ();

int
main ()
{
 system ("cls");  printf
("\t\t==============================================
=\n");
 printf ("\t\t|                                  |\n");  printf ("\t\t|      ---------------------------
--       |\n");  printf ("\t\t|         TRAIN TICKET RERS. SYSTEM         |\n");  printf
("\t\t|      ----------------------------        |\n");

 printf (" \n Press any key to continue:");  getch ();
system ("cls");  login ();
 int menu_choice, choice_return; start:
 system ("cls");  printf ("\n================================\n");  printf
("   TRAIN RESERVATION SYSTEM");  printf
("\n================================");  printf ("\n1>> Reserve A
Ticket");  printf ("\n----------------------");  printf ("\n2>> View All Available
Trains");
 printf ("\n----------------------");
 printf ("\n3>> Cancel Reservation");  printf ("\n-----
-------------------");  printf ("\n4>> Exit");  printf ("\n--
----------------------");  printf ("\n\n-->");  scanf ("%d",
&menu_choice);  switch (menu_choice)
  {
  case 1:
    reservation ();                //Fucntion still not added      break;    case
2:
```

```
    viewdetails ();      printf ("\n\nPress any key to go to Main Menu..");
getch ();      break;    case 3:
    cancel ();
    //function not added. code has been removed due to some errors      break;    case 4:
    return (0);    default:
printf ("\nInvalid choice");
   }
 goto start;   return (0);
}

void viewdetails (void)
{
 system ("cls");   printf
   ("-------------------------------------------------------------------------------");   printf
("\nTr.No\tName\t\t\tDestinations\t\tCharges\t\tTime\n");   printf
   ("-------------------------------------------------------------------------------");   printf ("\n1001\tRed
Lines Express\tkadapa to vijayawada\tRs.5000\t9am");   printf ("\n1002\tRed Lines
Express\tbangalore to tirupati\tRs.5000\t12pm");
 printf
   ("\n1003\tLA City Express\t\tvisakhapatnam to hyderabad\t\tRs.4500\t8am");
 printf
   ("\n1004\tLA City Express\t\tbangalore to
hyderabad\t\tRs.4500\t11am");   printf ("\n1005\tIron City
Express\tkerala to visakhapatnam\tRs.4000\t7am");   printf
("\n1006\tIron City Express\tbangalore to
chennai\tRs.4000\t9.30am");   printf ("\n1007\tKeystone
Express\tgujarat to maharashtra\tRs.3500\t1pm");   printf
("\n1008\tKeystone Express\tguntur to nagpur\tRs.3500\t4pm");
printf ("\n1009\tMeteor Express\t\tkolkata to
bangalore\tRs.6000\t3.35pm");   printf ("\n1009\tMeteor
Express\t\tbangalore to delhi\tRs.6000\t4.15pm");

}
```

```
void reservation (void)
{
  char confirm;   int i =
0;   float charges;   pd
passdetails;   FILE *fp;
fp = fopen
("seats_reserved.txt",
"a");   system ("cls");

  printf ("\nEnter Your Name:> ");   fflush
(stdin);   gets (passdetails.name);
  //error here have to take input of the name    printf ("\nEnter Number of seats:>
");   scanf ("%d", &passdetails.num_of_seats);   printf ("\n\n>>Press Enter To
View Available Trains<< ");   getch ();   system ("cls");   viewdetails ();   printf
("\n\nEnter train number:> "); start1:
  scanf ("%d", &passdetails.train_num);   if (passdetails.train_num >= 1001 &&
passdetails.train_num <= 1010)
    {
      charges = charge (passdetails.train_num, passdetails.num_of_seats);
printticket (passdetails.name, passdetails.num_of_seats,
passdetails.train_num, charges);
    }
  else
    {
      printf ("\nInvalid train Number! Enter again--> ");      goto start1;
    }

  printf ("\n\nConfirm Ticket (y/n):>"); start:
  scanf (" %c", &confirm);   if (confirm
== 'y')
    {
```

```
    fprintf (fp, "%s\t\t%d\t\t%d\t\t%.2f\n", &passdetails.name,
passdetails.num_of_seats, passdetails.train_num, charges);      printf
("==================");      printf ("\n Reservation Done\n");      printf
("==================");      printf ("\nPress any key to go back to Main menu");
  }
 else
  {
   if (confirm == 'n')
         {
            printf
   ("\nReservation Not Done!\nPress any key to go back to  Main menu!");
         }
    else
         {
          printf ("\nInvalid choice entered! Enter again-----> ");          goto start;
         }
  }
 fclose (fp);   getch ();
}

/*********************************************CHARGE(
)*************************************************/

float charge (int train_num, int num_of_seats)
{
 if (train_num == 1001)
  {
   return (5000.0 * num_of_seats);
  }
 if (train_num == 1002)
  {
   return (5000.0 * num_of_seats);
```

```
  }
if (train_num == 1003)
  {
    return (4500.0 * num_of_seats);
  }
if (train_num == 1004)
  {
    return (4500.0 * num_of_seats);
  }
if (train_num == 1005)
  {
    return (4000.0 * num_of_seats);
  }
if (train_num == 1006)
  {
    return (4000.0 * num_of_seats);
  }
if (train_num == 1007)
  {
    return (3500.0 * num_of_seats);
  }
if (train_num == 1008)
  {
```

```
    }
      return (3500.0 * num_of_seats);


 if (train_num == 1009)
   {
     return (6000.0 * num_of_seats);
   }
 if (train_num == 1010)
   {
     return (6000.0 * num_of_seats);
   }
}



/*********************************************PRINTTIC
KET()************************************************
/

void printticket (char name[], int num_of_seats, int train_num, float charges)
{
  system ("cls");   printf ("-------------------
\n");   printf ("\tTICKET\n");   printf ("--------
----------\n\n");   printf ("Name:\t\t\t%s",
name);   printf ("\nNumber Of Seats:\t%d",
num_of_seats);   printf ("\nTrain
Number:\t\t%d", train_num);
specifictrain (train_num);   printf
("\nCharges:\t\t%.2f", charges);
}

/*********************************************SPECIFIC
TRAIN()********************************************** **/
```

```
      printf ("
    }
void specifictrain (int train_num)
{

 if (train_num == 1001)
   {
     printf ("\nTrain:\t\t\tRed Lines Express");      printf
("\nDestination:\t\tkadapa to vijayawada");      printf
("\nDeparture:\t\t9am ");
   }
 if (train_num == 1002)
   {
     printf ("\nTrain:\t\t\tRed Lines Express");      printf
("\nDestination:\t\tbangalore to tirupati"); \nDeparture:\t\t12pm");


 if (train_num == 1003)
   {
     printf ("\nTrain:\t\t\tLA City Express");      printf
("\nDestination:\t\tvisakhapatnam to hyderabad");      printf
("\nDeparture:\t\t8am");
   }
 if (train_num == 1004)
   {
     printf ("\nTrain:\t\t\tLA City Express");      printf
("\nDestination:\t\tbangalore to hyderabad");      printf
("\nDeparture:\t\t11am ");
   }
 if (train_num == 1005)
   {
     printf ("\nTrain:\t\t\tIron City Express");      printf ("\nDestination:\t\t kerala
to visakhapatnam");      printf ("\nDeparture:\t\t7am");
   }
```

```
 if (train_num == 1006)
  {
    printf ("\ntrain:\t\t\tIron City Express");      printf ("\nDestination:\t\t
bangalore to chennai");
```

```
      printf ("
    }
                    \nDeparture:\t\t9.30am ");


 if (train_num == 1007)
   {
     printf ("\ntrain:\t\t\tKeystone Express");      printf
("\nDestination:\t\tgujarat to maharashtra");      printf
("\nDeparture:\t\t1pm ");
   }
 if (train_num == 1008)
   {
     printf ("\ntrain:\t\t\tKeystone Express");      printf ("\n
Destination:\t\tguntur to nagpur");      printf ("\nDeparture:\t\t4pm ");
   }
 if (train_num == 1009)
   {
     printf ("\ntrain:\t\t\tMeteor Express");      printf
("\nDestination:\t\tkolkata to bangalore");      printf
("\nDeparture:\t\t3.35pm ");
   }
 if (train_num == 1010)
   {
     printf ("\ntrain:\t\t\tMeteor Express");      printf
("\nDestination:\t\tbangalore to delhi "); \nDeparture:\t\t1.15 ");


}

void login ()
{   int a = 0, i = 0;   char uname[10], c =
' ';   char pword[10], code[10];   char
user[10] = "user";   char pass[10] =
"pass";   do
```

```
  {

    printf
                    ("\n  ======================  LOGIN FORM
======================\n  ");
    printf (" \n                  ENTER USERNAME:-");      scanf ("%s",
&uname);      printf (" \n                  ENTER PASSWORD:-");      while
(i < 10)
          {
                pword[i] = getch ();
           c = pword[i];
 if (c == 13)        break;
 else
             printf ("*");    i++;
          }
    pword[i] = '\0';
     i = 0;

    if (strcmp (uname, "user") == 0 && strcmp (pword, "pass") == 0)
          {
             printf
                                          ("  \n\n\n      WELCOME TO OUR SYSTEM !! YOUR LOGIN
IS SUCCESSFUL");         printf ("\n\n\n\t\t\t\tPress any key to continue...");
getch ();           break;
          }
    else
          {
           printf ("\n       SORRY !!!!  LOGIN IS UNSUCESSFUL");          a++;
```

```
            getch ();          system
("cls");
           }
   }
 while (a <= 2);   if (a >
2)
   {      printf
          ("\nSorry you have entered the wrong username and password for four times!!!");

     getch ();

   }
 system ("cls");
}

void cancel (void)
{
 system ("cls");   int trainnum;   printf ("------
----------\n");   printf ("Enter the train
number: \n");   printf ("----------------------
\n");   fflush (stdin);   scanf ("%i",
&trainnum);   printf ("\n\nCancelled");
getch ();
}
```

8)OUTPUT/RESULTS

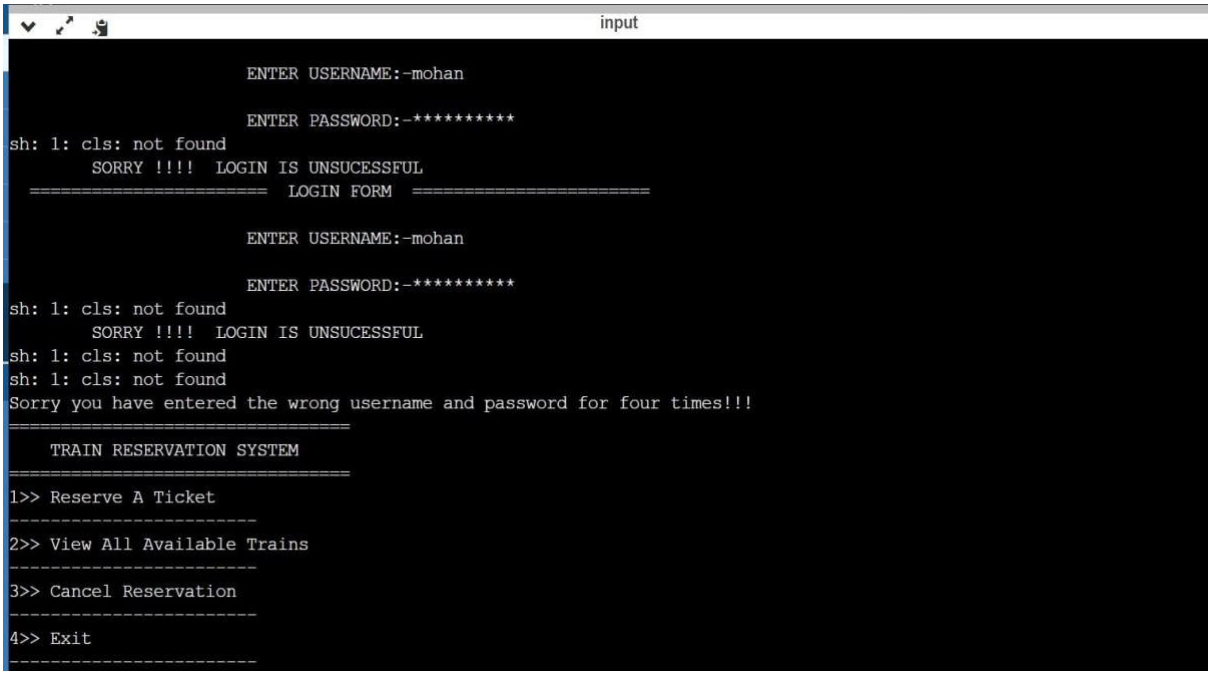


Fig 1)Login page

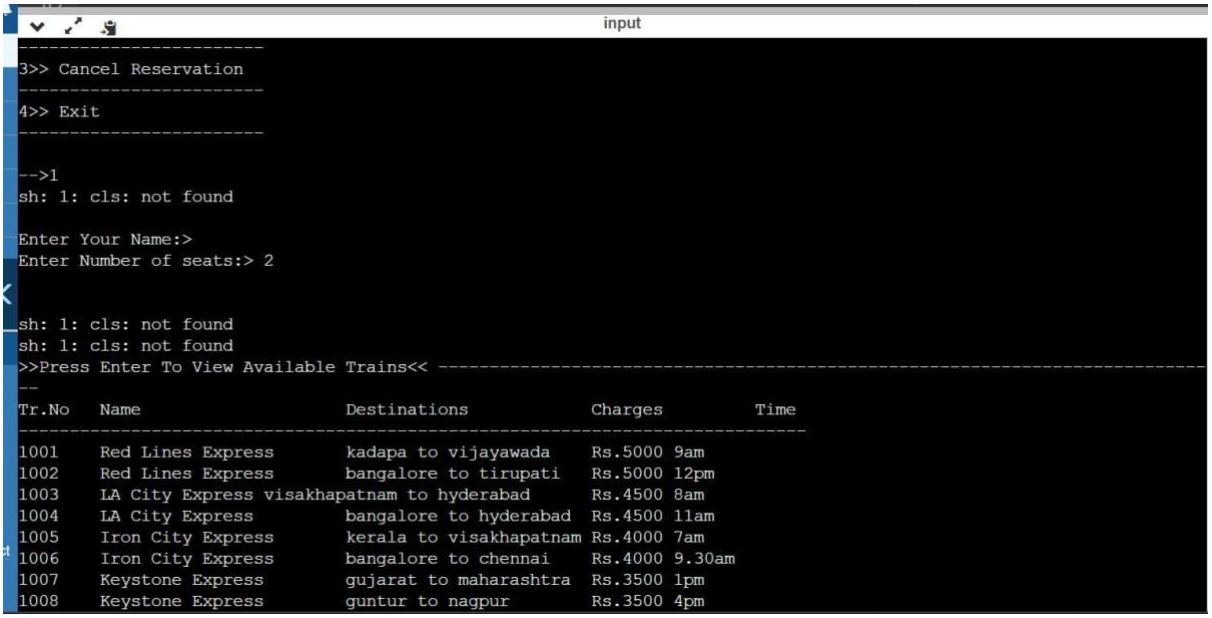


Fig 2 Entering Details

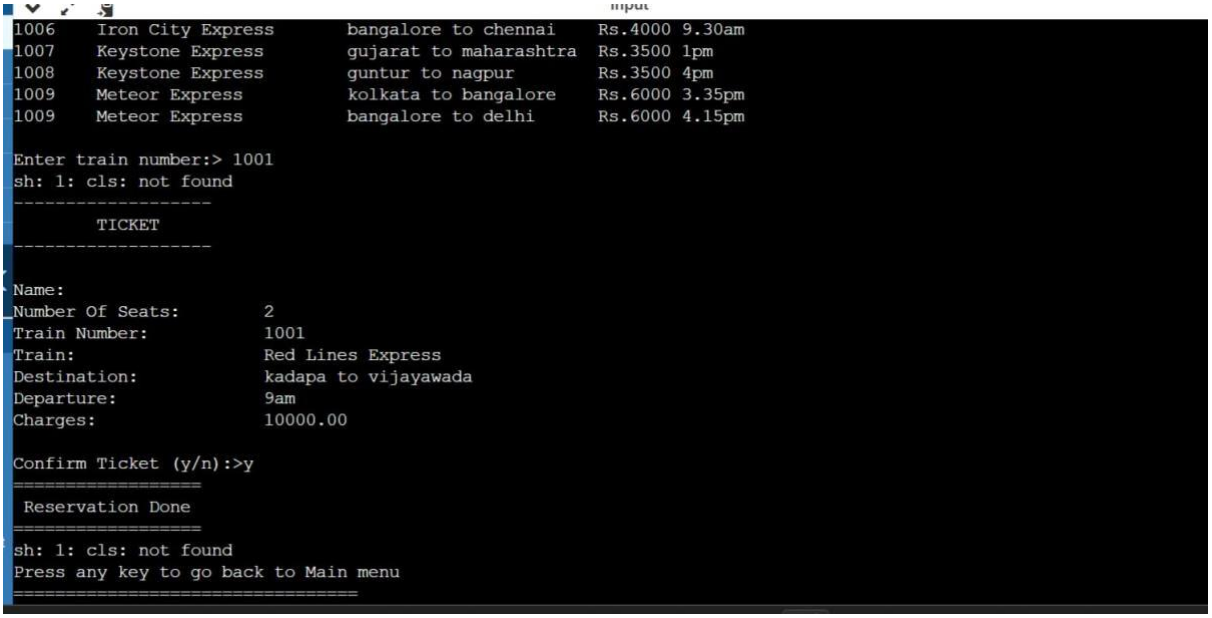
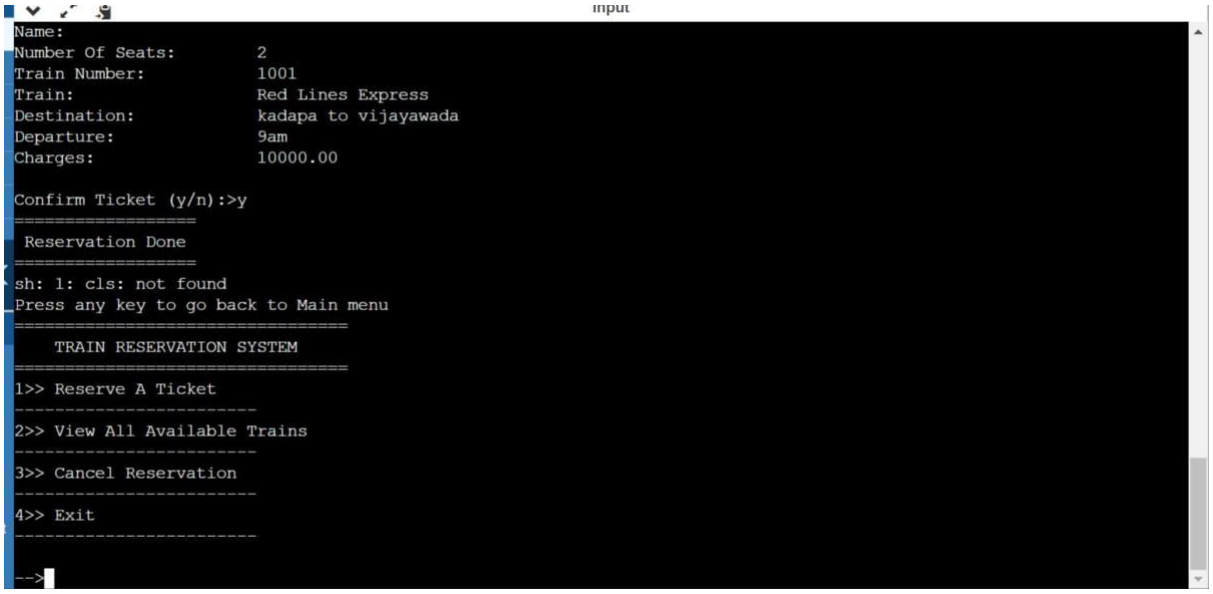


Fig3)confirmation detials



9)CONCLUSION

The main of developing reservation system is to provide all information that is required by the users. User friendliness is a must that is the user must get the details without complicated.searching procedures .Other important requirements of software are data security, extensibility and maintainability.