

Bus reservation system

Introduction of the Project Bus Ticket Booking System:

The "Bus Ticket Booking 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 the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message 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. Bus Ticket Booking System , as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their 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 informations of Ticket, Bus, Customer, Bus Schedule, Bus Route. Every Bus Ticket Booking System has different Bus needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

Abstract of the Project Bus Ticket Booking System:

The purpose of Bus Ticket Booking System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.

Bus Ticket Booking System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to manage for good performance and better services for the clients.

Objective of Project on Bus Ticket Booking System:

The main objective of the Project on Bus Ticket Booking System is to manage the details of Bus, Ticket, Booking, Customer, Bus Route. It manages all the information about Bus, Bus Schedule, Bus Route, Bus. The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to build an application program to reduce the manual work for managing the Bus, Ticket, Bus Schedule, Booking. It tracks all the details about the Booking, Customer, Bus Route.

Functionalities provided by Bus Ticket Booking System are as follows:

- Provides the searching facilities based on various factors. Such as Bus, Booking, Customer, Bus Route
- Bus Ticket Booking System also manage the Bus Schedule details online for Customer details, Bus Route details, Bus.
- It tracks all the information of Ticket, Bus Schedule, Customer ect
- Manage the information of Ticket
- Shows the information and description of the Bus, Booking
- To increase efficiency of managing the Bus, Ticket
- It deals with monitoring the information and transactions of Customer.
- Manage the information of Bus
- Editing, adding and updating of Records is improved which results in proper resource management of Bus data.
- Manage the information of Customer
- Integration of all records of Bus Route.

Scope of the project Bus Ticket Booking System

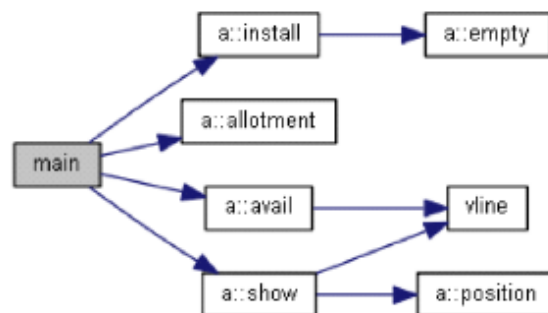
It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works relative to Bus Ticket Booking System. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

Our project aims at Business process automation, i.e. we have tried to computerize various processes of Bus Ticket Booking System.

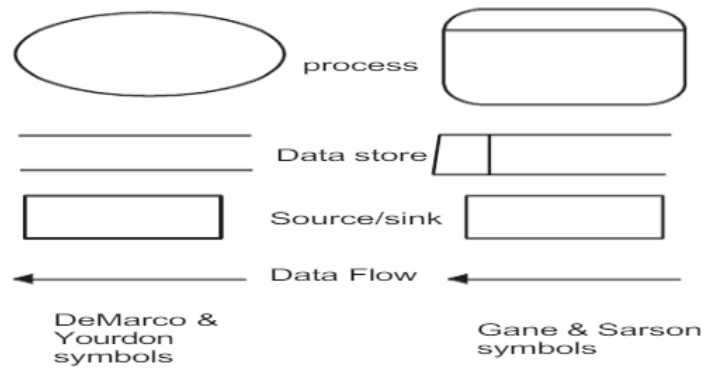
- In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time.
- In computer system, it is not necessary to create the manifest but we can directly print it, which saves our time.
- To assist the staff in capturing the effort spent on their respective working areas.
- To utilize resources in an efficient manner by increasing their productivity through automation.
- The system generates types of information that can be used for various purposes.
- It satisfy the user requirement

Reports of Bus Ticket Booking System:

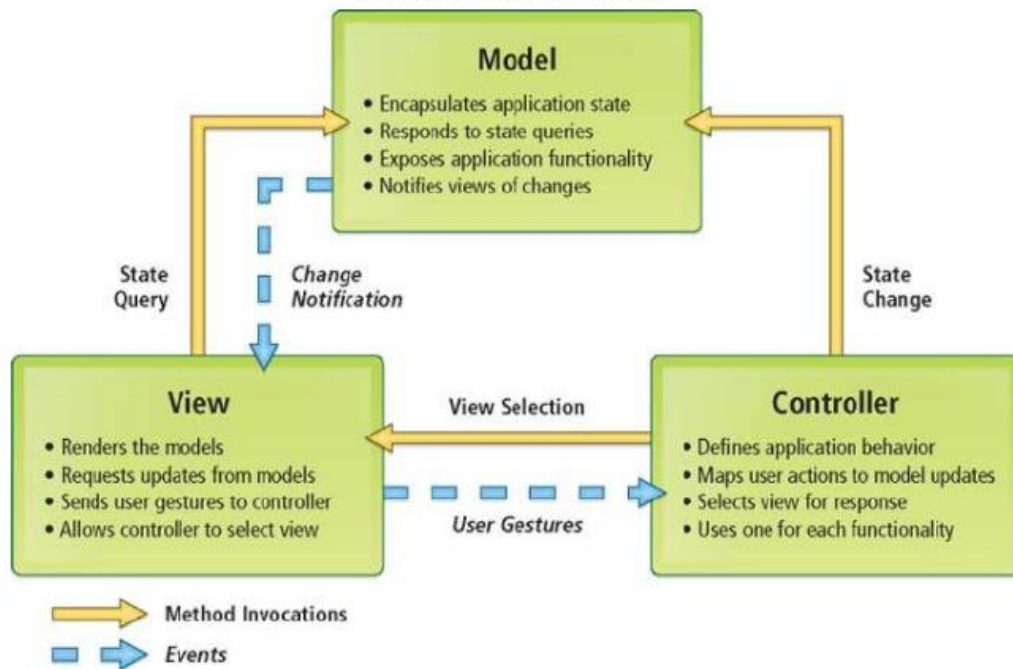
- It generates the report on Bus, Ticket, Bus Schedule
- Provide filter reports on Booking, Customer, Bus Route
- You can easily export PDF for the Bus, Bus Schedule, Customer
- Application also provides excel export for Ticket, Booking, Bus Route
- You can also export the report into csv format for Bus, Ticket, Bus Route



DATAFLOW DIAGRAM:-



DATA FLOW DIAGRAMS



MODULES:-

1. **Install Bus Information:**

This feature allows you to install a typical bus information before it can be reserved by the passengers or shown in buses available. It includes the bus no., driver's name, arrival time, departure time and destination (from and to) of the bus.

2. **Reservation:**

This feature is very simple; it includes the bus no., seat number and the passenger's name. The seat number of the particular bus is reserved under the passenger's name.

3. **Show Reservation Information:**

With this feature, you can show all the information regarding the buses and their respective seats. It contains all the information stored by the previous two function of this project. It also enlists the no. of empty seats in a bus along with the seat number registered to a particular passenger

4. **BusesAvailable:**

This feature simply shows the buses available for reservation, and the information regarding the bus no. stored under the first feature.

SOURCE CODE:-

```
#include <conio.h>

#include <cstdio>

#include <iostream>

#include <string.h>

#include <stdlib>

#include <fstream>

using namespace std;

static int p = 0;

class a
```

```

{
    char busn[5], driver[10], arrival[5], depart[5], from[10], to[10], seat[8][4][10];
public:
    void install();
    int storeinstall();
    void allotment();
    void empty();
    void show();
    void avail();
    void position(int i);
}

bus[10];
void vline(char ch)
{
    for (int i=80;i>0;i--)
        cout<<ch;
}

void a::install()
{
    cout<<"Enter bus no: ";
    cin>>bus[p].busn;
    cout<<"\nEnter Driver's name: ";
    cin>>bus[p].driver
    cout<<"\nArrival time: ";
    cin>>bus[p].arrival;
    cout<<"\nDeparture: ";
    cin>>bus[p].depart;
}

```

```

cout<<"\nFrom: \t\t\t";

cin>>bus[p].from;

cout<<"\nTo: \t\t\t";

cin>>bus[p].to;

bus[p].empty();

p++;

}

void a::allotment()

{

    int seat;

    char number[5];

    top:

    cout<<"Bus no: ";

    cin>>number;

    int n;

    for(n=0;n<=p;n++)

    {

        if(strcmp(bus[n].busn, number)==0)

            break;

    }

    while(n<=p)

    {

        cout<<"\nSeat Number: ";

        cin>>seat;

        if(seat>32)

        {

            cout<<"\nThere are only 32 seats available in this bus.";

```



```

    }

    else

    {

    if (strcmp(bus[n].seat[seat/4][(seat%4)-1], "Empty")==0)

    {

        cout<<"Enter passanger's name: ";

        cin>>bus[n].seat[seat/4][(seat%4)-1];

        break;

    }

    else

        cout<<"The seat no. is already reserved.\n";

    }

    }

    if(n>p)

    {

        cout<<"Enter correct bus no.\n";

        goto top;

    }

    }

void a::empty()

{

    for(int i=0; i<8;i++)

    {

        for(int j=0;j<4;j++)

        {

            strcpy(bus[p].seat[i][j], "Empty");

        }

    }

}

```

```

    }
}

void a::show()
{
    int n;

    char number[5];

    cout<<"Enter bus no: ";

    cin>>number;

    for(n=0;n<=p;n++)
    {
        if(strcmp(bus[n].busn, number)==0)
            break;
    }
    while(n<=p)
    {
        vline('*');

        cout<<"Bus no: \t"<<bus[n].busn
        <<"\nDriver: \t"<<bus[n].driver<<"\t\tArrival time: \t"
        <<bus[n].arrival<<"\tDeparture time:"<<bus[n].depart
        <<"\nFrom: \t\t"<<bus[n].from<<"\t\tTo: \t\t"<<
        bus[n].to<<"\n";

        vline('*');

        bus[0].position(n);

        int a=1;

        for (int i=0; i<8; i++)
        {
            for(int j=0;j<4;j++)

```

```

{
    a++;

    if(strcmp(bus[n].seat[i][j],"Empty")!=0)

        cout<<"\nThe seat no "<<(a-1)<<" is reserved for "<<bus[n].seat[i][j]<<". ";

}

}

break;

}

if(n>p)

    cout<<"Enter correct bus no: ";

}

int a::storeinstall()

{

    ofstream fout;

    fout.open("yooo.txt",ios::app|ios::binary);

    fout.write((char*)this,sizeof(*this));

    fout.close();

    return(1);

}

void a::position(int l)

{

    int s=0;p=0;

    for (int i =0; i<8;i++)

    {

        cout<<"\n";

        for (int j = 0;j<4; j++)

        {

```

```

s++;

if(strcmp(bus[l].seat[i][j], "Empty")==0)
{
    cout.width(5);

    cout.fill(' ');

    cout<<s<<".";

    cout.width(10);

    cout.fill(' ');

    cout<<bus[l].seat[i][j];

    p++;
}

else
{
    cout.width(5);

    cout.fill(' ');

    cout<<s<<".";

    cout.width(10);

    cout.fill(' ');

    cout<<bus[l].seat[i][j];

}

}

}

cout<<"\n\nThere are "<<p<<" seats empty in Bus No: "<<bus[l].busn;

}

void a::avail()

{

    for(int n=0;n<p;n++)

```

```

{
    vline('*');

    cout<<"Bus no: \t"<<bus[n].busn<<"\nDriver: \t"<<bus[n].driver
    <<"\t\tArrival time: \t"<<bus[n].arrival<<"\tDeparture Time: \t"
    <<bus[n].depart<<"\nFrom: \t\t"<<bus[n].from<<"\t\tTo: \t\t\t"
    <<bus[n].to<<"\n";

    vline('*');

    vline('_');
}
}

int main()
{
    system("cls");

    int w;

    while(1)
    {

        cout<<"\n\n\n\n\n";

        cout<<"\t\t\t1.Install\n\t\t\t"
        <<"2.Reservation\n\t\t\t"
        <<"3.Show\n\t\t\t"
        <<"4.Buses Available. \n\t\t\t"
        <<"5.Exit";

        cout<<"\n\t\t\tEnter your choice:-> ";

        cin>>w;

        switch(w)
        {

```

```

case 1: bus[p].install();

    break;

case 2: bus[p].allotment();

    break;

case 3: bus[0].show();

    break;

case 4: bus[0].avail();

    bus[0].storeinstall();

    break;

case 5: exit(0);

}

}

return 0;

}

```

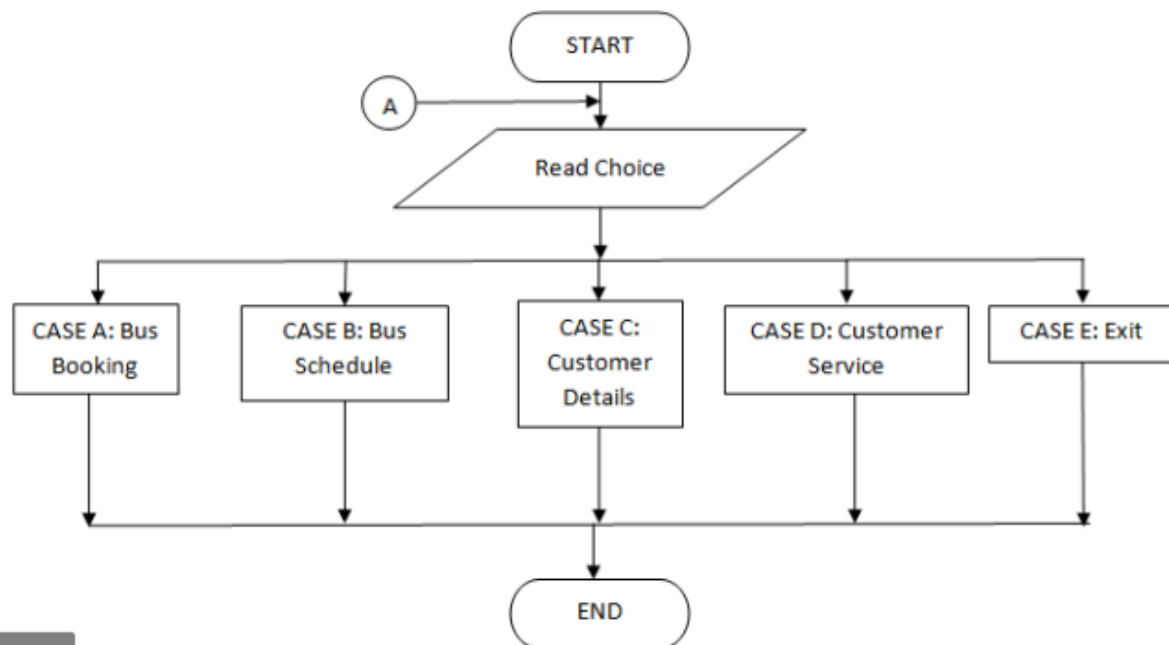
The screenshot shows a Windows command prompt window titled "C:\Users\riddhi nilawar\Desktop\madd\ooppr.exe". The program displays a menu with five options: 1.Install, 2.Reservation, 3.Show, 4.Buses Available., and 5.Exit. The user enters '1' for the choice. The program then prompts for 'Enter bus no: 101', 'Enter Driver's name: man', 'Arrival time: 9.00', and 'Departure: 7.00'. It then asks for 'From:' (pune) and 'To:' (hingoli). The menu is displayed again at the bottom of the window.

```

22 void vline(char ch)
"C:\Users\riddhi nilawar\Desktop\madd\ooppr.exe"
1.Install
2.Reservation
3.Show
4.Buses Available.
5.Exit
Enter your choice:-> 1
Enter bus no: 101
Enter Driver's name: man
Arrival time: 9.00
Departure: 7.00
From:           pune
To:             hingoli

1.Install
2.Reservation
3.Show
4.Buses Available.
5.Exit
Enter your choice:->

```



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Conclusion of the Project Bus Ticket Booking System:

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

At the end it is concluded that we have made effort on following points...

- A description of the background and context of the project and its relation to work already done in the area.
- Made statement of the aims and objectives of the project.
- The description of Purpose, Scope, and applicability.
- We define the problem on which we are working in the project.
- We describe the requirement Specifications of the system and the actions that can be done on these things.
- We understand the problem domain and produce a model of the system, which describes operations that can be performed on the system.
- We included features and operations in detail, including screen layouts.
- We designed user interface and security issues related to system.
- Finally the system is implemented and tested according to test cases.

References and Bibliography:

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- <https://docs.oracle.com/javase/tutorial/>
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- <http://www.JSP.net/>
- <http://www.tutorialspoint.com/mysql/>
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