

# **BUS TICKET MANAGEMENT SYSTEM**

A Course Project report submitted  
in partial fulfillment of requirement for the award of degree

## **BACHELOR OF TECHNOLOGY in DATABASE MANAGEMENT SYSTEM**

by

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**CERTIFICATE**

This is to certify that project entitled “**BUS TICKET MANAGEMENT SYSTEM**” is the bonafied work carried out by **B. MANIKANTA SAAKETH, D.SRINIDHI, V.SHIVANI** as a Course Project for the partial fulfillment to award the degree **BACHELOR OF TECHNOLOGY** in **DATABASE MANAGEMENT SYSTEM** during the academic year 2022-2023 under our guidance and Supervision.

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## **ABSTRACT**

The bus ticket management website project aims to provide convenient and efficient platform for users to book and manage their bus tickets online. The website will be designed to cater to the needs of both passengers and bus operators, with a user-friendly interface that facilitates easy ticket booking, payment processing, and ticket management. The website will offer various features such as real-time bus schedules, seat availability, and fare information, enabling users to make informed decisions while booking their tickets. It will also allow users to cancel or modify their bookings and access their e-tickets directly from the website. The system also includes features such as ticket printing, payment processing, and reporting for analytics and monitoring. Overall, the bus ticket management system streamlines the ticketing process and enhances the customer experience, while increasing the efficiency and profitability of bus operators.

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# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 DESCRIPTION**

The bus ticket management system is a computer-based application that provides a comprehensive solution to manage the process of booking, cancelling, and managing bus tickets. On the other hand, bus operators can use the system to manage their fleet, routes, schedules, and fares. It eliminates the need for manual booking and reduces the workload of operators by automating the entire process.

### **1.2 CURRENT SITUATION**

In current system, there are various problems like keeping records of items, seats available, prices of per/seat and fixing bill generation on each bill. Finding out details regarding any information is very difficult, as the user has to go through all the books manually. Major problem was lack of security. Currently, the type of system being used at the counter is an internal system which is manually used in selling the bus tickets. The problems facing the company are that customers have to go to the counter to buy bus ticket or ask for bus schedule, customers will also have to queue up for a long time in order to secure a bus ticket and will also need to pay cash when they buy the bus ticket.

### **1.3 SOLUTION**

- Bus ticket management system is the way to solve the current problem
- Bus ticket management system The bus ticket management website project aims to provide convenient and efficient platform for users to book and manage their bus tickets online.
- The website will be designed to cater to the needs of both passengers and bus operators, with a user-friendly interface that facilitates easy ticket booking, payment processing, and ticket management.

- The website will offer various features such as real-time bus schedules, seat availability, and fare information, enabling users to make informed decisions while booking their tickets. It will also allow users to cancel or modify their bookings and access their e-tickets directly from the website.

## 1.4 OBJECTIVES

The objective of a bus ticket management system is to streamline and automate the ticketing process for bus transportation. This system can help bus companies to improve their operational efficiency and provide a better experience for passengers. Some specific objectives of a bus ticket management system may include:

- **Simplifying the booking process:** The system should make it easy for passengers to search for available buses, select seats, and make payments.
- **Real-time tracking of bus availability:** The system should be able to track the availability of buses in real-time and display the available seats to customers.
- **Efficient ticket management:** The system should be able to manage and track ticket sales, cancellations, and refunds in an efficient manner.

## 1.5 LIMITATIONS

- **Limited accessibility:** If the bus ticket management system is only accessible through a website or mobile app, it may be challenging for passengers who do not have access to a computer or smartphone to purchase tickets. This could result in reduced sales and customer satisfaction.
- **Dependence on technology:** A bus ticket management system relies heavily on technology to operate. If there is a technical issue, such as a server crash or a software bug, it could result in the

system being unavailable and passengers being unable to purchase tickets. This could lead to lost revenue and customer frustration.

- **Security concerns:** Storing sensitive passenger information, such as personal and payment details, could lead to security risks. If the system is hacked or there is a data breach, it could result in passengers' personal information

# CHAPTER 2

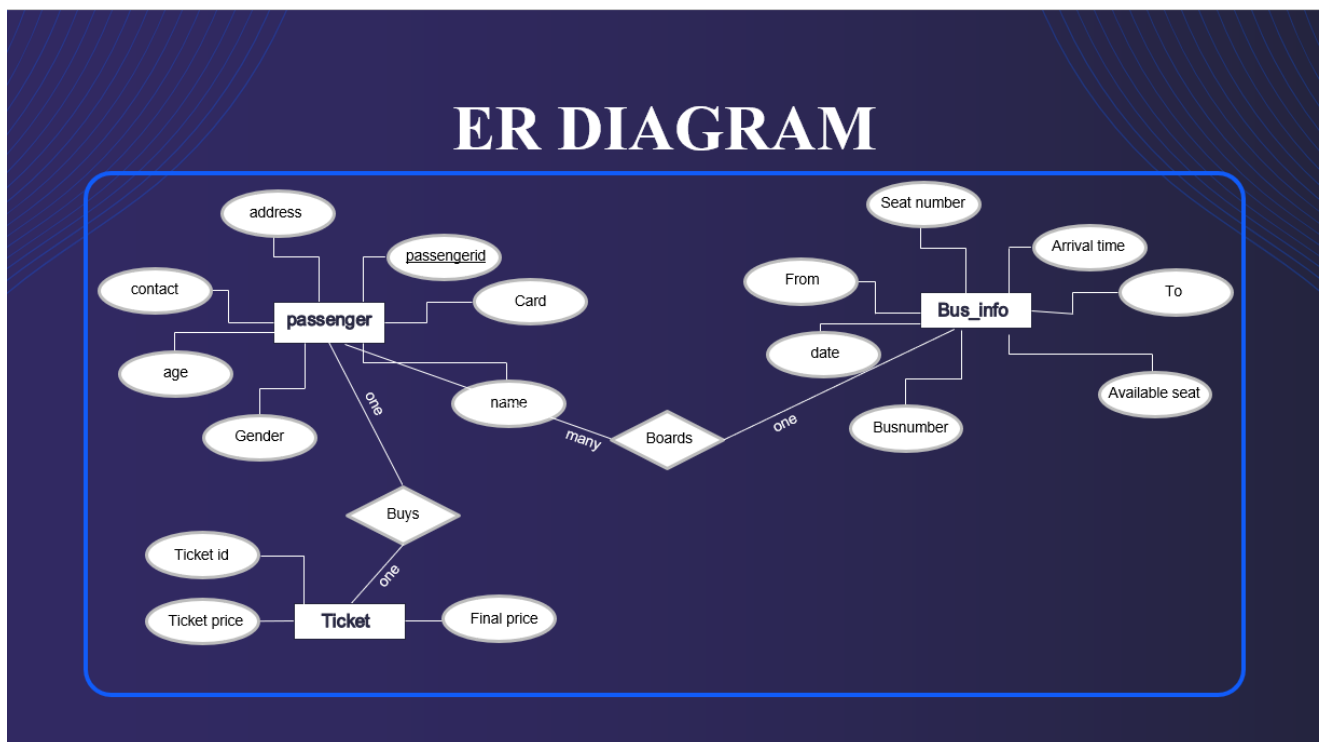
## ER DIAGRAM

### 2.1 ER DIAGRAM

An ER diagram, or Entity-Relationship diagram, is a visual representation of the entities and relationships between them in a database. The ER diagram for the bus ticket management system

Components of the ER diagram: The ER diagram will consist of several components, including:

- Entities
- Attributes
- Relationships
- Cardinality





# **CHAPTER 3**

## **REQUIEIMENTS**

### **3.1 HARDWARE REQUIEIMENTS**

Processor	: Any Processor above 500 MHz
Ram	: 128Mb.
Hard Disk	: 10 Gb.
Compact Disk	: 650 Mb.
Input device	: Standard Keyboard and Mouse.
Output device	: High Resolution Monitor.

### **3.2 SOFTWARE REQUIREMENTS**

Operating System	: Windows 11
Language	: Python, Html, CSS, JavaScript
Technologies	:MySQL , Django
Data Bases	: Microsoft SQL Server 2005
IDE	: Vs code

# CHAPTER 4

## IMPLEMENTATION DETAILS

### HTML PAGES

```
<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <title>Bus Ticket</title>

  <style>

    body {

      background-image:url("https://images.unsplash.com/photo-1494515843206-
      f3117d3f51b7?ixlib=rb-
      4.0.3&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=fo
      rmat&fit=crop&w=1172&q=80");

      background-repeat: no-repeat;

      background-size: cover;

      background-position: center;

      font-family: Arial, sans-serif;

      bottom:0;

    }

    header {

      background-color: #333;
```

```
    color: rgb(86, 86, 86);

    padding: 10px;
}

h3{

    color:#fa6969;

}

p{

    color:#fff;

}

nav {

    position:fixed;

    padding:18px;

    width:100%;

    top:0;

    left:0;

    margin-bottom: 100px;

    background-color: #f84a4a;

}

nav p {

    text-align: right;

    position: absolute;

    right: 110px;

    top: 18px;

    margin: 0;

    color:#ffffff;
```

```

}

.btn{

    font-size: medium;

    text-align: right;

    position: absolute;

    right: 35px;

    top: 8px;

    margin: 0;

    color:#ffffff;

}

.btn:hover{

    color:#555;

}

a{

    font-size: large;

    padding:10px;

    transition: color 0.5s ease;

    text-decoration: none;

    color:#333;

}

a:hover{

    color:#ffffff;

    cursor:pointer;

}

main {

```

```
padding-top:50px;

margin: 20px;

}
```

```
h1 {

font-size: 36px;

color: #ffffff;

background:#333 ;

width:338px;

padding:10px;

border-radius:5px;

}
```

```
form {

position: relative;

border: 1px solid #ccc;

padding: 10px;

background-color: rgba(255,255,255,0.8);

}
```

```
div{

position:absolute;

background:#333;

opacity: 70%;

filter:blur(100px);

z-index: -1;
```

```

    top: 0;

    left: 0;

    width: 100%;

    height: 130%;
}

label {

    display: inline-block;

    width: 100px;

    font-weight: bold;

    color:rgb(53, 53, 53);
}


input[type="text"], input[type="date"], input[type="number"], select {

    width: 200px;

    padding: 5px;

    margin-bottom: 10px;

    border: 1px solid #ccc;

    border-radius: 5px;
}


button[type="submit"] {

    background-color: #333;

    color: white;

    border: none;

    padding: 10px 20px;

```

```
border-radius: 5px;

cursor: pointer;
}

footer {

    background-color: #333;

    color: #fff;

    text-align: center;

    padding: 1px;

    position: fixed;

    bottom: 0;

    left:0;

    width: 100%;

}
```

```
button[type="submit"]:hover {

    background-color: #555;

}
```

```
</style>

</head>

<body>

    <nav>

        <a href="{ % url 'home' % }">Home</a>

        <a href="{ % url 'booktickets' % }">Book tickets</a>

        <a href="{ % url 'viewtickets' % }">View tickets</a>
```

```

<a href="{ % url 'login_signup' % }">Login/sign up</a>

<a href="{ % url 'logout' % }" class="btn" >Logout</a>

{ % if user.is_authenticated % }

<p >Welcome, {{ user.username }}</p>

{ % endif % }

</nav>

<main>

<div></div>

<h3>Book Your Bus Tickets Online!</h3>

<p>Traveling by bus is a convenient and affordable way to get around, and
now you can book your bus tickets online with ease. Whether you're planning a short
trip or a long journey, our online booking system makes it simple and hassle-
free.</p><br>

<h3> Choose Your Destination and Date</h3>

<p>With our online booking system, you can easily select your destination,
travel date, and preferred bus service. We offer a wide range of bus services to
destinations all over the country, so you can find the perfect option for your travel
needs.</p><br>

<h3> Secure Payment and Instant Confirmation</h3>

<p>Once you've selected your bus service and travel details, you can make a
secure online payment using your credit or debit card. Our payment gateway is safe
and secure, so you can book your bus tickets with confidence. You'll receive an
instant confirmation of your booking via email or SMS.</p><br>

```



### Flexible Ticket Options

We offer flexible ticket options to suit your travel needs. You can choose from one-way, round-trip, or multi-city tickets, and you can even select your preferred seat on the bus. If your travel plans change, you can easily modify or cancel your booking online.

### Customer Support and Assistance

We're here to help you with all your bus ticket booking needs. Our customer support team is available 24/7 to assist you with any queries or concerns you may have. You can reach us by phone, email, or live chat.

Book your bus tickets online today and enjoy a hassle-free travel experience!

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## MODELS:

```
from django.db import models
```

```
class Ticket(models.Model):
```

```
    full_name=models.CharField(max_length=50,null=True)
```

```
    aadhar_num=models.CharField(max_length=50,null=True)
```

```
    From=models.CharField(max_length=50,null=True)
```

```
    To=models.CharField(max_length=50,null=True)
```

```

date=models.DateField(max_length=50,null=True)
no_of_seats=models.IntegerField(null=True)
username=models.CharField(max_length=50,null=True)
price=models.CharField(max_length=1000,null=True)
def __str__(self):
    return self.full_name
class Bus(models.Model):
    From1=models.CharField(max_length=50,null=True)
    To1=models.CharField(max_length=50,null=True)
    Price=models.IntegerField(null=True)
    Bus_no=models.IntegerField(null=True)

```

## **BACKEND:**

```

from django.http import HttpResponse
from django.shortcuts import get_object_or_404, render,redirect
from bticket.models import Ticket,Bus
from django.views.decorators.csrf import csrf_exempt
from .forms import Booktickets,Ticketid_form
from django.contrib.auth.models import User
from django.contrib.auth import authenticate,login,logout
from django.contrib.auth.decorators import login_required
@login_required(login_url='login_signup')
def home(request):
    return render(request,'home.html')
@login_required(login_url='login_signup')
def booktickets(request):
    tic_form=Booktickets()
    context={
        'form':tic_form
    }
    return render(request,'booktickets.html',context)
def login_signup(request):
    if request.method=='POST':
        uname=request.POST.get('username')

```

```

    passw=request.POST.get('password')
    user=authenticate(request,username=uname,password=passw)
    if user is not None:
        login(request,user)
        return redirect('home')
    else:
        return HttpResponseRedirect("Username or password is incorrect")
    return render(request,'login_signup.html')
def signup(request):
    if request.method=='POST':
        uname1=request.POST.get('username1')
        passw1=request.POST.get('password1')
        cpass=request.POST.get('cpassword')
        email=request.POST.get('email')
        pno=request.POST.get('phoneno')
        if passw1!=cpass:
            return HttpResponseRedirect("Your passwords does not match ")
        else:
            my_user=User.objects.create_user(uname1,email,passw1)
            my_user.save()
            return redirect('signup')
        return render(request,'signup.html')
@login_required(login_url='login_signup')
def viewtickets(request):
    ticid_form=Ticketid_form()
    context1={
        'form':ticid_form
    }
    return render(request,'viewtickets.html',context1)
def Logout(request):
    logout(request)
    return redirect('home')
@csrf_exempt
def ticket_created(request):

```

```

my_model=Ticket()
my_model1=Bus()
if request.method=='POST':
    full_name=request.POST.get('Full_name')
    aad=request.POST.get('Aadhar_number')
    fro=request.POST.get('From')
    to=request.POST.get('To')
    date1=request.POST.get('date')
    no_of_seats=request.POST.get('Number_of_seats')
    bus = get_object_or_404(Bus, From1=fro, To1=to)
    price = bus.Price * int(no_of_seats)
    my_model=Ticket(full_name=full_name,aadhar_num=aad,From=fro,To=to,date
=
date1,no_of_seats=no_of_seats,price=price)
    my_model.save()
    ticket_id=my_model.id
    context={'ticket_id':ticket_id}
    return render(request,'ticket_created.html',context)
tic_form = Booktickets()
context = {'form': tic_form}
return render(request, 'booktickets.html', context)
def ticket_list(request):
    if request.method=='POST':
        tid=request.POST.get('Ticket_Id')
        ticket= get_object_or_404(Ticket, id=tid)
        context = {'ticket': ticket}
        return render(request, 'tickets_list.html', context)

```

## URLS:

```

from django.contrib import admin
from django.urls import path
from . import index
urlpatterns = [
    path("admin/", admin.site.urls),
    path("",index.home,name='home'),

```

```
path('booktickets',index.booktickets,name='booktickets'),
path('login_signup',index.login_signup,name='login_signup'),
path('viewtickets',index.viewtickets,name='viewtickets'),
path('signup',index.signup,name='signup'),
path('logout',index.Logout,name='logout'),
path('ticket_list',index.ticket_list,name='ticket_list'),
path('ticket_created',index.ticket_created,name='ticket_created')
]
```

# CHAPTER 5

## SCREENSHOTS

### Results

#### OUTPUT:

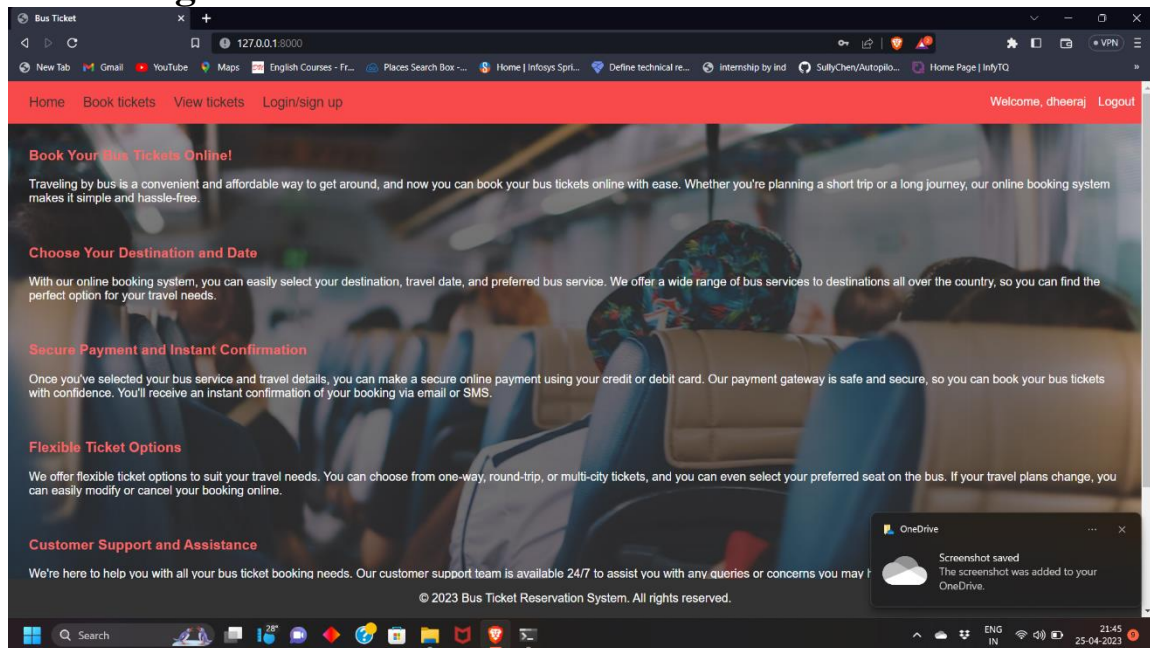
##### Signup Page:

The screenshot shows a web browser window with the URL `127.0.0.1:8000/signup`. The page has a red header with navigation links: Home, Book tickets, View tickets, Login/sign up, and a Logout link. The main content area features a 'Sign up' form with the following fields: Username (filled with 'dheeraj'), Phone no (filled with '9109283902'), Email (filled with '123@gmail.com'), Password (filled with '12345678'), and Confirm Password (filled with '12345678'). There is a 'Show Password' checkbox next to the Confirm Password field. A red 'Sign Up' button is at the bottom of the form. Below the form, there are links: 'Don't have an account? Sign up' and 'Already have an account? Log in'. The footer of the page reads '© 2023 Bus Ticket Reservation System. All rights reserved.' The browser's taskbar at the bottom shows the Windows logo, search bar, and various application icons. The system clock indicates 21:44 on 25-04-2023.

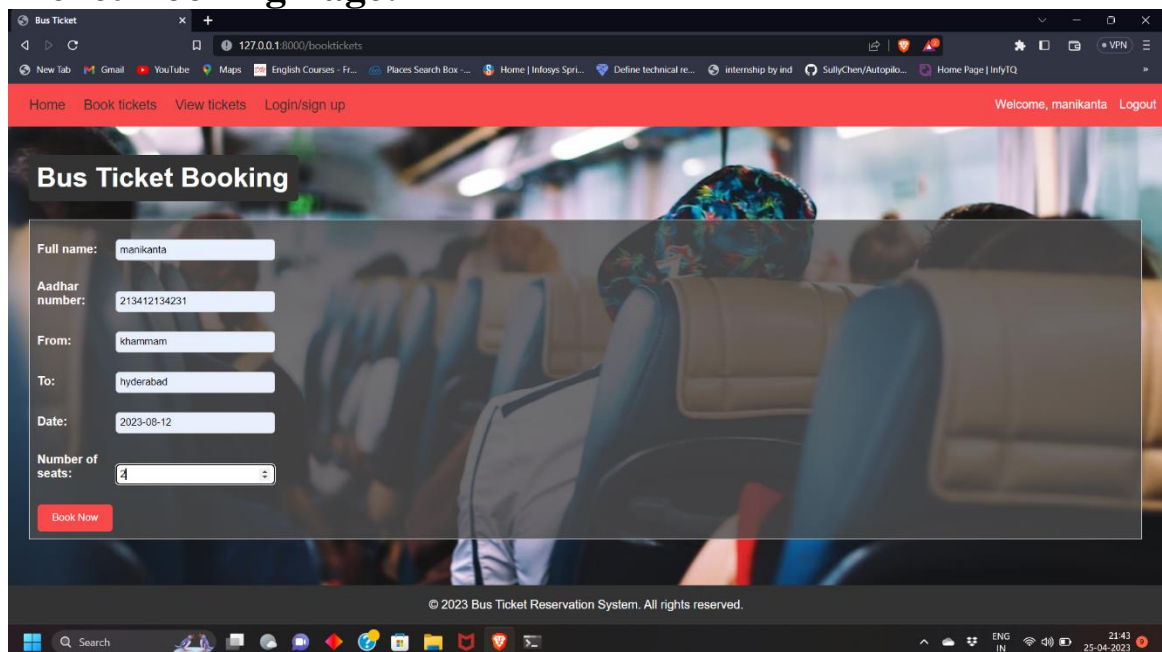
##### Login Page:

The screenshot shows a web browser window with the URL `127.0.0.1:8000/login_signup`. The page has a red header with navigation links: Home, Book tickets, View tickets, Login/sign up, and a Logout link. The main content area features a 'Log In' form with the following fields: Username (filled with 'dheeraj') and Password (filled with '12345678'). There is a 'Show Password' checkbox next to the Password field. A red 'Log In' button is at the bottom of the form. Below the form, there are links: 'Don't have an account? Sign up' and 'Already have an account? Log in'. The footer of the page reads '© 2023 Bus Ticket Reservation System. All rights reserved.' The browser's taskbar at the bottom shows the Windows logo, search bar, and various application icons. The system clock indicates 21:45 on 25-04-2023.

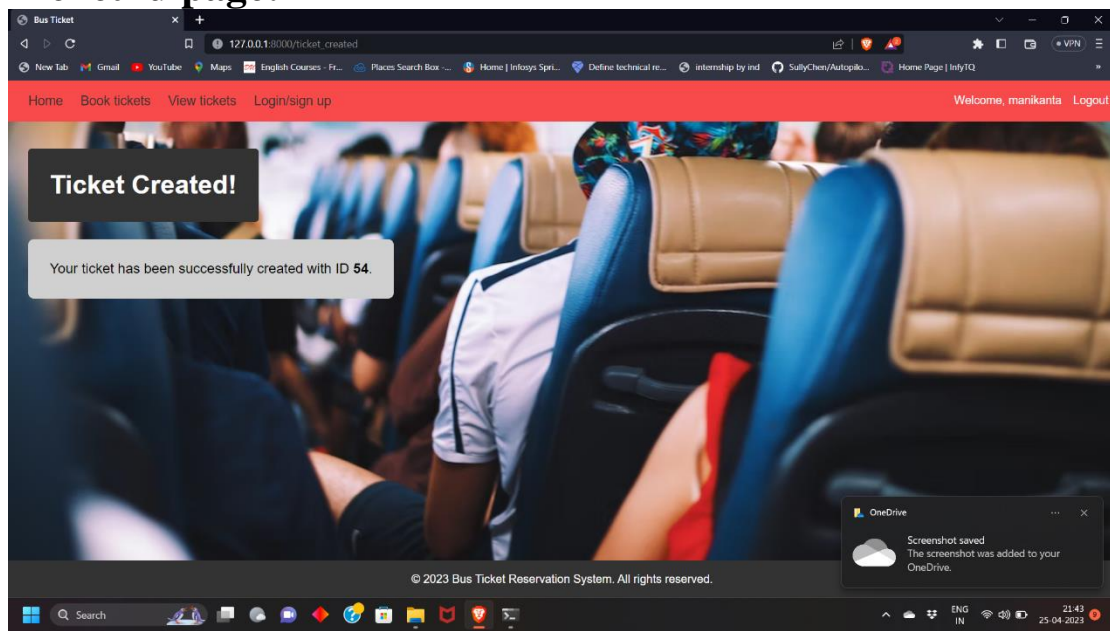
## Home Page:



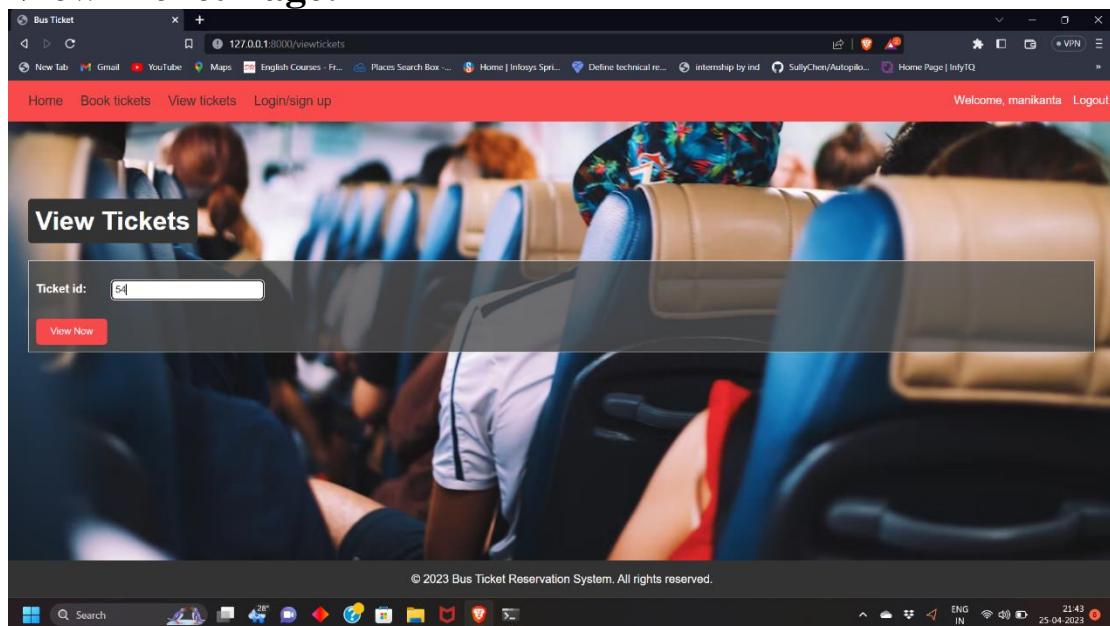
## Ticket Booking Page:



## Ticket id page:



## View Ticket Page:





## Ticket Details Page:

Full Name	Aadhar Number	From	To	Date	Number of Seats	Price
manikanta	213412134231	khammam	hyderabad	Aug. 12, 2023	2	940

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# **CHAPTER 6**

## **CONCLUSION**

- The Bus Ticket Management System is a crucial tool for transportation companies.
- Provides a centralized platform for ticket management, allowing users to easily purchase, cancel, and modify tickets
- A reliable and secure database management system is essential for storing and managing the vast amounts of data generated by ticketing operations.
- The system employs key database management concepts, such as data normalization, transaction management, and backup and recovery procedures, ensuring the integrity and availability of critical data.
- The system allows transportation companies to provide a more convenient and reliable ticketing experience while optimizing their own operations.
- As the transportation industry continues to grow, such systems will become increasingly vital for companies looking to remain competitive.