DELHI PUBLIC SCHOOL,DWARKA

Phase I, Dwarka Sector-3, Dwarka, New Delhi, Delhi 110078

<u>COMPUTER SCIENCE</u>

PROJECT FILE

NAME: Ananya Arora
CLASS: XII   **SECTION:** D
ROLL NO: 5
EXAM ROLL NO:
ACADEMIC YEAR : 2021-22

<u>CERTIFICATE</u>

This is to certify that ANANYA ARORA of class **XII-D** has successfully completed the **Computer Science** project on the topic **Bus Ticket Reservation and Management** under the guidance of **Mr. Amit Dua** during the academic year 2021-22.

_____ _____

INTERNAL EXAMINER   DATE

<u>ACKNOWLEDGEMENT</u>

I am happy to express my profound sense of gratitude to Ms. Sunita Tanwar, Principal, Delhi Public School, Dwarka , for the encouragement she has given me throughout the course and for the successful completion of the project.

I am also grateful to our Computer Science teacher Mr. Amit Dua for his valuable guidance which has been an indispensable factor in the successful completion of this work.

I also take this opportunity to place on record the deep gratitude to Lord Almighty for the countless blessings showered on me while doing the work and complete it.

Last but not the least I thank my parents and friends for their encouragement and support in my humble venture.

TABLE OF CONTENTS

TOPIC OF THE PROJECT

BUS TICKET RESERVATION AND MANAGEMENT
2021-22

Group Members:
1)ANANYA ARORA - XII-D
2)HITARTH KHURANA - XII-D

SOURCE CODE

```python
import time
import mysql.connector
import re
from dateutil.parser import parse
from tabulate import tabulate
from mysql.connector import errors

mydatabase=mysql.connector.connect(host="localhost",user="root",
passwd="Root5",database="Project")
mycursor=mydatabase.cursor()
import random

print("\n Welcome! To Bus Ticket Booking System")

while True:
    print ("\n1. Ticket Booking")
    print ("2. Manage Booking")
    print ("3. Exit")
    n=int(input("\nEnter your option: "))
    print("\n")

    if n==1:
        name=input("Name: ")
        age=int(input("Age: "))
        gender=input("Gender(M/F): ")

        while True:
            x=input("Enter the date of travel (Format: yyyy-mm-dd): ")
            try:
                parse(x,dayfirst=True)
                date=x
                break
            except ValueError:
                print("Invalid! Try again by entering the correct date(Format:
                    yyyy-mm-dd): ")
```

```python
value = random.randint(100000,999999)

print("\nRoutes:")
print("\n")
print("1.  Dwarka to Najafgarh")
print("2.  Najafgarh to Mundka")
print("3.  Mundka to Khanjawala")
print("4.  Khanjawala to Rohini")
print("5.  Rohini to Narela")
print("6.  Narela to Badli")
print("7.  Badli to Chandni Chowk")
print("8.  Chandni Chowk to Shahdara")
print("9.  Shahdara to Mayur Vihar")
print("10. Mayur Vihar to Hauz Khas ")
print("11. Hauz Khas  to IGI Airport")
print("12. IGI Airport to Daryaganj")
print("\n")

n=int(input("Choose a route from above options to continue: "))

if n==1:
    route='Dwarka to Najafgarh'
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=5
    if y=="15:25" or y=="15:55":
        busno=10
    if y== "15:35" or y=="16:05":
        busno=5
```

```python
if n==2:
    route="Najafgarh to Mundka"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=15
    if y=="15:25" or y=="15:55":
        busno=25
    if y== "15:35" or y=="16:05":
        busno=15

if n==3:
    route="Mundka to Khanjawala"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=35
    if y=="15:25" or y=="15:55":
        busno=45
    if y== "15:35" or y=="16:05":
        busno=35
```

```python
if n==4:
    route="Khanjawala to Rohini"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=55
    if y=="15:25" or y=="15:55":
        busno=65
    if y== "15:35" or y=="16:05":
        busno=55

if n==5:
    route="Rohini to Narela"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=75
    if y=="15:25" or y=="15:55":
        busno=85
    if y== "15:35" or y=="16:05":
        busno=75
```

```python
if n==6:
    route="Narela to Badli"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=95
    if y=="15:25" or y=="15:55":
        busno=105
    if y== "15:35" or y=="16:05":
        busno=95


if n==7:
    route="Badli to Chandni Chowk"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=38
    if y=="15:25" or y=="15:55":
        busno=48
    if y== "15:35" or y=="16:05":
        busno=38
```

```python
if n==8:
        route="Chandni Chowk to Shahdara"
        print("\nAvailable Timings:")
        print("15:15")
        print("15:25")
        print("15:35")
        print("15:45")
        print("15:55")
        print("16:05")
        print("16:15")

        y=input("Choose a timing: ")

        if y=="15:15" or y=="15:45" or y=="16:15":
            busno=112
        if y=="15:25" or y=="15:55":
            busno=113
        if y=="15:35" or y=="16:05":
            busno=112

 if n==9:
    route="Shahdara to Mayur Vihar"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=111
    if y=="15:25" or y=="15:55":
        busno=32
    if y== "15:35" or y=="16:05":
        busno=111
```

```python
if n==10:
    route="Mayur Vihar to Hauz Khas"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing:")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=118
    if y=="15:25" or y=="15:55":
        busno=171
    if y== "15:35" or y=="16:05":
        busno=118


if n==11:
    route="Hauz Khas  to IGI Airport"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing:")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=26
    if y=="15:25" or y=="15:55":
        busno=37
    if y== "15:35" or y=="16:05":
        busno=26
```

```python
if n==12:
    route="IGI Airport to Daryaganj"
    print("\nAvailable Timings:")
    print("15:15")
    print("15:25")
    print("15:35")
    print("15:45")
    print("15:55")
    print("16:05")
    print("16:15")
    print("\n")
    y=input("Choose a timing: ")
    if y=="15:15" or y=="15:45" or y=="16:15":
        busno=225
    if y=="15:25" or y=="15:55":
        busno=222
    if y== "15:35" or y=="16:05":
        busno=225

print("\n1.Window seat")
print("2.Other")

h=int(input("Please select an option from above to continue: "))

if h==1:
        a="A1"
        b="A2"
        c="A3"
        d="A4"
        e="A5"
        f="A6"
        g="A7"
        h="B1"
        i="B2"
        j="B3"
        k="B4"
        l="B5"
        m="B6"
        n="B7"
```

```python
        table=[[a,h],[b,i],[c,j],[d,k],[e,l],[f,m],[g,n]]
        headers=["A(Right)", "B(Left)"]
        print(tabulate(table, headers, tablefmt="plain"))
        q=input("Choose a seat from above(Please make sure that you enter
                the seat no. as mentioned): ")


    if h==2:
        a="C1"
        b="C2"
        c="C3"
        d="C4"
        e="C5"
        f="C6"
        g="C7"
        h="D1"
        i="D2"
        j="D3"
        k="D4"
        l="D5"
        m="D6"
        n="D7"

        table=[[a,h],[b,i],[c,j],[d,k],[e,l],[f,m],[g,n]]
        headers=["C(Right)", "D(Left)"]
        print(tabulate(table, headers, tablefmt="plain"))
        q=input("Choose a seat from above(Please make sure that you enter
                the seat no. as mentioned): ")




    try:
        sql="INSERT INTO Ticket
(PNR,Name,Age,Sex,Date,BusNo,SeatNo,Route)VALUES(%s,%s,%s,%s,%s,%s,%s
,%s)"
```

```python
        val=(value,name,age,gender,date,busno,q,route)
        mycursor.execute(sql, val)
        print("Redirecting to payment page...")
        time.sleep(3)
        print(mycursor.rowcount,"Ticket successfully booked")
        print("PNR:",value)
        mydatabase.commit()

    except(mysql.connector.IntegrityError, mysql.connector.DataError) as err:
        print("Already booked. Please try again with a different seat number.")
        print(err)

    except mysql.connector.ProgrammingError as err:
        print("Programming Error")
        print(err)

    except mysql.connector.Error as err:
        print(err)


if n==2:
    print("\n")
    print("1.Check Booking Status")
    print("2.Change booking Seat/Date/Cancel/Refund")
    print("3.Exit")

    n=int(input("Enter a choice (1/2/3) to continue: "))

    if n==1:
        a=int(input("Enter the PNR: "))
        val=(a,)
        mycursor.execute("select*from ticket where pnr like %s", val)
        result=mycursor.fetchall()
```

```python
        k=len(result)
        if k==0:
            print("Invalid! Kindly re-enter the correct PNR.")
        else:
            headers=['PNR', 'NAME', 'AGE', 'SEX', 'DATE', 'BUS NO', 'SEAT NO',
                    'ROUTE']
            print(tabulate(result, headers, tablefmt='psql'))

if n == 2:
    print("1.Cancel Booking/Refund")
    print("2.Change Booking Date")
    print("3.Change seat")
    print("4.Exit")

    option=int(input("Enter a choice (1/2/3/4) to continue: "))
    if option==1:
        while True:
            a=int(input("Enter the PNR: "))
            b=input("Are you sure you want to cancel your booking (Only half of
                    the amount will be refunded)? ")
            c=b.capitalize()

            if c=='Y' or 'YES':
                val=(a,)
                mycursor.execute("Delete from ticket where pnr like %s",val)
                mydatabase.commit()
                print ("Cancelling........")
                time.sleep(3)
                c=mycursor.rowcount

                if c==0:
                    print("Please make sure that you have entered the correct
                            PNR")
                else:
                    print(mycursor.rowcount,"Ticket successfully cancelled")
                    break
```

```python
if option==2:
    a=int(input("Enter the PNR: "))
    while True:
        x=input("Enter the new date(format: yyyy-mm-dd): ")
        try:
            parse(x,dayfirst=True)
            date=x
            val=[x,a]
            mycursor.execute("update Ticket set Date=%s where PNR like
                             %s",val)
            print("Date successfully changed.")
            break

        except ValueError:
            print("Invalid! Try again by entering the correct
                  date(Format-dd/mm/yyyy) ")


if option==3:
    a=int(input("Enter the PNR: "))
    while True:
        print("\n1.Window seat")
        print("2.Other")
        h=int(input("Please select an option from above to continue: "))
        if h==1:
            a="A1"
            b="A2"
            c="A3"
            d="A4"
            e="A5"
            f="A6"
            g="A7"
            h="B1"
            i="B2"
            j="B3"
            k="B4"
            l="B5"
            m="B6"
            n="B7"
```

```python
        table=[[a,h],[b,i],[c,j],[d,k],[e,l],[f,m],[g,n]]
        headers=["A(Right)", "B(Left)"]
        print(tabulate(table, headers, tablefmt="plain"))
        g =input("Choose a seat from above(Please make sure that you
                enter the seat no. as mentioned): ")

    if h==2:
        a="C1"
        b="C2"
        c="C3"
        d="C4"
        e="C5"
        f="C6"
        g="C7"
        h="D1"
        i="D2"
        j="D3"
        k="D4"
        l="D5"
        m="D6"
        n="D7"

        table=[[a,h],[b,i],[c,j],[d,k],[e,l],[f,m],[g,n]]
        headers=["C(Right)", "D(Left)"]
        print(tabulate(table, headers, tablefmt="plain"))
        g =input("Choose a seat from above(Please make sure that you
                enter the seat no. as mentioned): ")

    try:
        val=(g,a)
        mycursor.execute("update Ticket set SeatNo=%s where PNR like
                        %s",val)
        print("Updated Successfully!")
        break
```

```python
            except(mysql.connector.IntegrityError, mysql.connector.DataError)
            as err:
                print("This seat has already been booked. Please try again with a
                different seat number!")
                print(err)

        if o==4:
            print("Thankyou!")
            break

    if n==3:
        print("Thankyou!")
        break

if n==3:
    print("Thankyou!")
    break
```

OUTPUT

1. ENTERING CHOICE MENU 1

```
 Welcome! To Bus Ticket Booking System

1. Ticket Booking
2. Manage Booking
3. Exit

Enter your option: 1


Name: Ananya Arora
Age: 17
Gender(M/F): F
Enter the date of travel (Format: yyyy-mm-dd): 2022-03-24

Routes:


1.   Dwarka to Najafgarh
2.   Najafgarh to Mundka
3.   Mundka to Khanjawala
4.   Khanjawala to Rohini
5.   Rohini to Narela
6.   Narela to Badli
7.   Badli to Chandni Chowk
8.   Chandni Chowk to Shahdara
9.   Shahdara to Mayur Vihar
10.  Mayur Vihar to Hauz Khas
11.  Hauz Khas  to IGI Airport
12.  IGI Airport to Daryaganj


Choose a route from above options to continue: 11
```

2. <u>**BOOKING TIMING AND SEAT**</u>

```
Choose a route from above options to continue: 11

Available Timings:
15:15
15:25
15:35
15:45
15:55
16:05
16:15


Choose a timing:16:05

1.Window seat
2.Other
Please select an option from above to continue: 1
A(Right)     B(Left)
A1           B1
A2           B2
A3           B3
A4           B4
A5           B5
A6           B6
A7           B7
Choose a seat from above(Please make sure that you enter the seat no. as mentioned): B7
Redirecting to payment page...
1 Ticket successfully booked
PNR: 742333
```

3. ENTERING CHOICE MENU 2- To Check Booking Status

```
1. Ticket Booking
2. Manage Booking
3. Exit

Enter your option: 2



1.Check Booking Status
2.Change booking Seat/Date/Cancel/Refund
3.Exit
Enter a choice (1/2/3) to continue: 1
Enter the PNR: 742333
+--------+--------------+-------+-------+------------+----------+-----------+---------------------------+
|   PNR  | NAME         |  AGE  | SEX   | DATE       | BUS NO   | SEAT NO   | ROUTE                     |
|--------+--------------+-------+-------+------------+----------+-----------+---------------------------|
| 742333 | Ananya Arora |   17  | F     | 2022-03-24 |       26 | B7        | Hauz Khas  to IGI Airport |
+--------+--------------+-------+-------+------------+----------+-----------+---------------------------+
```

4. **ENTERING CHOICE MENU 2-**

i. **To Change Booking Date**

```
1. Ticket Booking
2. Manage Booking
3. Exit

Enter your option: 2




1.Check Booking Status
2.Change booking Seat/Date/Cancel/Refund
3.Exit
Enter a choice (1/2/3) to continue: 2
1.Cancel Booking/Refund
2.Change Booking Date
3.Change seat
4.Exit
Enter a choice (1/2/3/4) to continue: 2
Enter the PNR: 742333
Enter the new date(format: yyyy-mm-dd): 2022-04-21
Date successfully changed.
```

5. **<u>ENTERING CHOICE MENU 2-
To Change Seat</u>**

```
1. Ticket Booking
2. Manage Booking
3. Exit

Enter your option: 2




1.Check Booking Status
2.Change booking Seat/Date/Cancel/Refund
3.Exit
Enter a choice (1/2/3) to continue: 2
1.Cancel Booking/Refund
2.Change Booking Date
3.Change seat
4.Exit
Enter a choice (1/2/3/4) to continue: 3
Enter the PNR: 742333

1.Window seat
2.Other
Please select an option from above to continue: 2
C(Right)     D(Left)
C1           D1
C2           D2
C3           D3
C4           D4
C5           D5
C6           D6
C7           D7
Choose a seat from above(Please make sure that you enter the seat no. as mentioned): D5
Updated Successfully!
```

6. __ENTERING CHOICE MENU 2- To Cancel Booking__

```
1. Ticket Booking
2. Manage Booking
3. Exit

Enter your option: 2




1.Check Booking Status
2.Change booking Seat/Date/Cancel/Refund
3.Exit
Enter a choice (1/2/3) to continue: 2
1.Cancel Booking/Refund
2.Change Booking Date
3.Change seat
4.Exit
Enter a choice (1/2/3/4) to continue: 1
Enter the PNR: 742333
Are you sure you want to cancel your booking (Only half of the amount will be refunded)? yes
Cancelling........
1 Ticket successfully cancelled
```

7. **<u>ENTERING CHOICE MENU 3</u>**

```
1. Ticket Booking
2. Manage Booking
3. Exit

Enter your option: 3


Thankyou!
>>>
```

BIBLIOGRAPHY

Following references were used to develop this project:

1.COMPUTER SCIENCE TEXTBOOK CLASS 12: SUMITA ARORA

2. https://www.google.com

3. https://www.tutorialaicsip.com

4. https://www.python.org.in

5. .https://www.mysql.org

REMARKS

THANKYOU