MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Skill Based Mini Project Report

on

AIRLINE MANAGEMENT SYSTEM

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Submitted to:

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

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CERTIFICATE

This is certified that **Rahul Bora** (0901CS201093) has submitted the project report titled **Airline Management System** under the mentorship of Ms.**Jaimala Jha** , in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

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DECLARATION

I hereby declare that the work being presented in this project report, for the partial fulfilment of requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of Ms..**Jaimala Jha Assistant Prof.**, **Computer Science Engineering**

I declare that I have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.

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ABSTRACT

An airline management system is a software system that is used to manage the operations of an airline company. It can be used to manage various aspects of an airline's business, including flight schedules, aircraft maintenance, crew scheduling, ticket sales, and passenger reservations. The system may also include functionality for managing financial and accounting operations, as well as for analyzing and reporting on key performance metrics. In some cases, an airline management system may also be integrated with other systems, such as those used for cargo management or airport operations. The main purpose of an airline management system is to improve the efficiency and effectiveness of an airline's operations, and to help the company .

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LIST OF ABBREVIATIONS:

Abbreviation		Description
SQL	-	structured query language
DBMS	-	data base management system
Custname	-	Name of passenger or customer
Custno	-	Customer or passenger serial number
addr	-	Address of passenger
jr_date	-	Journey date of passenger
tkt_total	-	Total fair of ticket
lug_total	-	Total amount of luggage of customer
g_total	-	Add both ticket and luggage amount

Chapter:- 1

Introduction:

An airline management system is a software tool used to manage the operations and administration of an airline. It typically includes modules for managing reservations, flight schedules, crew assignments, aircraft maintenance, and financial accounting. Some systems may also include features for managing customer relationships, such as loyalty programs and customer service.

The system typically interfaces with other systems, such as those used by airports, ground handling companies, and travel agencies, in order to share information and facilitate bookings. An airline management system can be used by airlines of all sizes, from small regional airlines to large global airlines.

The benefits of an airline management system includes improving operational efficiency, reducing costs, streamlining the booking process, automating repetitive tasks, and providing detailed reporting on various aspects of the airline's operations. The system is also expected to be adaptable to various airlines' needs and requirements.

Objective:-

The main objective of an airline management system is to improve the overall efficiency and effectiveness of an airline's operations. This can be achieved through a variety of means, such as automating repetitive tasks, streamlining the booking process, and providing detailed reporting on various aspects of the airline's operations. Some specific objectives of an airline management system include:

Reservations management: The system allows airlines to easily manage and track reservations, including booking, cancellations, and changes. This can help airlines to better manage their inventory and ensure that they have the right number of seats available at the right time.

Flight scheduling: The system can be used to create, update, and manage flight schedules, and to assign crew and aircraft to flights. This can help airlines to optimize their routes and reduce costs.

Crew management: The system can help airlines to manage their crew, including scheduling, payroll, and training.

Maintenance management: The system can help airlines to track and manage the maintenance of their aircraft, ensuring that they are safe and compliant with regulations.

Financial management: The system can help airlines to manage their finances, including revenue management, accounting, and budgeting.

Customer management: The system can help airlines to manage their customer relationships, including loyalty programs and customer service.

Overall, the implementation of an airline management system helps to increase transparency and control in the daily operations, improve communication, and decrease the margin of errors.

Chapter:-2

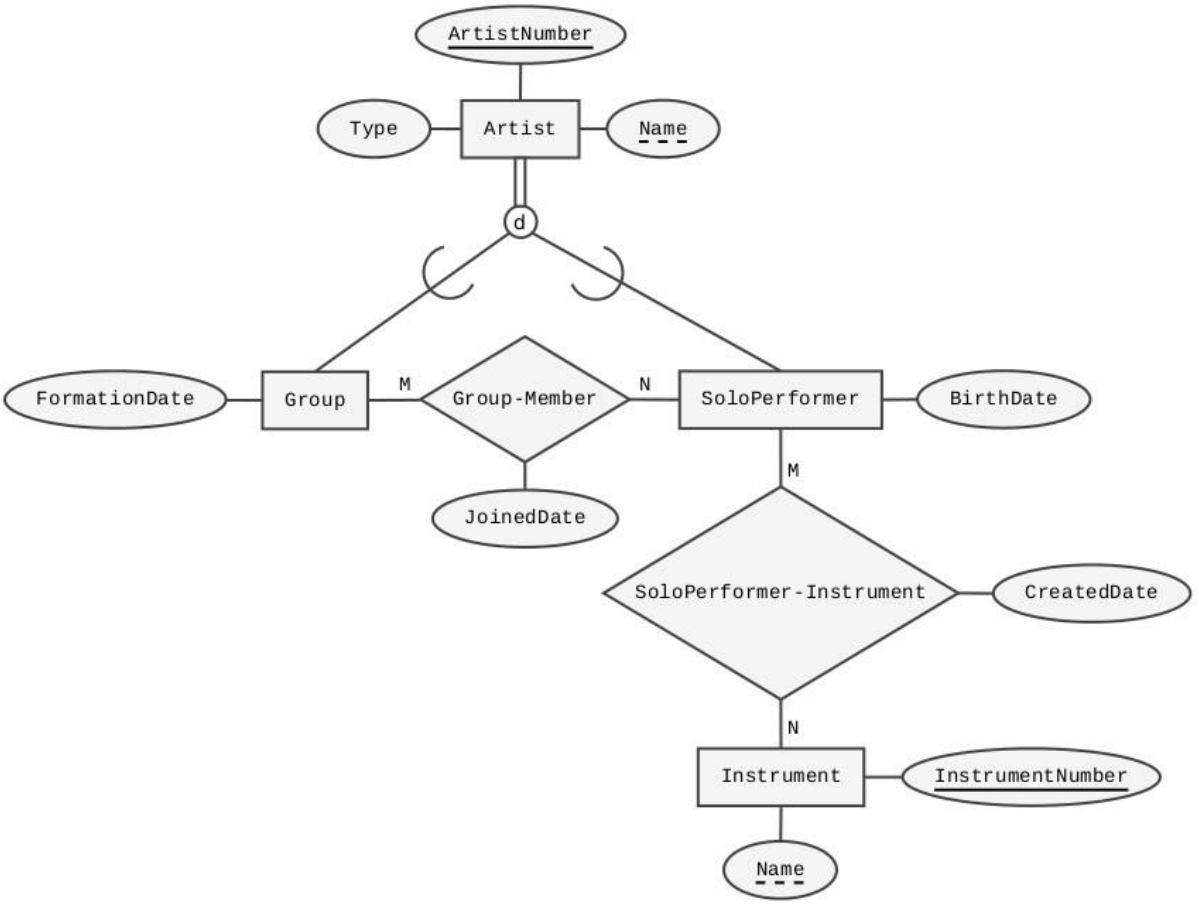
Hardware/Software Used

Airline management systems typically make use of both software and hardware components. The software component typically includes a database to store information about flights, planes, and passengers, as well as application programs to manage reservations, ticketing, and other tasks. The hardware component typically includes computers and servers to run the software, as well as interfaces to other systems such as the airport's baggage handling system and the airline'swebsite

In addition to these core components, an airline management system may also make use of otherhardware and software tools, such as:

- Barcode scanners and RFID readers for tracking luggage and other assets
  Mobile devices and tablets for check-in and other tasks
- Communication systems such as radios and phones for coordinating with ground staff and pilots
  Printing equipment for generating boarding passes and other documents
- Overall, the hardware and software used in an airline management system are designed to work together to support the efficient and effective operation of the airline.

E-R Diagram:-



Music Artists Enhanced Entity-Relationship Diagram

CODE :

```
import os
import platform
import mysql.connector
import datetime
mydb=mysql.connector.connect(host="localhost"
,user="root",passwd="tiger",database="air")
mycursor=mydb.cursor()

def registercust():
    L=[]
    custno=int(input('Enter customer no='))
    L.append(custno)
    name=input('Enter name:')
    L.append(name)
    addr=input('Enter address:')
    L.append(addr)
    jr_date=input('Enter date of journey:')
    L.append(jr_date)
    source=input('Enter source:')
    L.append(source)
    destination=input('Enter destination:')
    L.append(destination)

    cust=(L)
    sql='insert into
pdata(custno,custname,addr,jrdate,source,dest
ination) values(%s,%s,%s,%s,%s,%s)'
    mycursor.execute(sql,cust)
```

```
    mydb.commit()


def ticketprice():
    L=[]
    cno=int(input('Enter custoner no='))
    L.append(cno)
    print('We have the following rooms for
you:-')
    print('1. type First class--->rs 6000
PN\-')
    print('2. type Business class--->rs 4000
PN\-')
    print('3. type Economy class--->rs 2000
PN\-')
    x=int(input('Enter your choice:'))
    n=int(input('Enter No. of Passengers:'))
    if x==1:
        print('you have opted First class.')
        s=6000*n
        L.append(s)
    elif x==2:
        print('you have opted Business
class.')
        s=4000*n
        L.append(s)
    elif x==3:
        print('you have opted Economy
class.')
```

```
        s=2000*n
        L.append(s)
    else:
        print('Please select a class type.')
    print('your ticket charge is =',s,'\n')
    print('Extra luggage charge 100 rs per
kg')

    y=int(input('Enter your weight,of extra
luggage:'))
    z=y*100
    L.append(z)
    tkt=(L)
    print('Your Totalbill:',s+z,'\n')
    g_tot=s+z
    L.append(g_tot)
    sql="insert into tkt
(custno,tkt_tot,lug_total,g_tot) values
(%s,%s,%s,%s)"
    mycursor.execute(sql,tkt)
    mydb.commit()

def dis():
    custno=int(input("Enter the customer
number whose bill to be viewed : "))
    sql="Select pdata.custno, pdata.custname,
pdata.addr,pdata.source,pdata.destination,tkt
.tkt_tot,tkt.lug_total, g_tot from pdata
```

```
INNER JOIN tkt ON pdata.custno=tkt.custno and
tkt.custno = %s"
    rl=(custno,)
    mycursor.execute(sql,rl)
    res=mycursor.fetchall()
    for x in res:
        print(x)

def dispall():

    sql="Select pdata.custno, pdata.custname,
pdata.addr,pdata.source,pdata.destination,tkt
.tkt_tot,tkt.lug_total, g_tot from pdata
INNER JOIN tkt ON pdata.custno=tkt.custno"
    mycursor.execute(sql)
    res=mycursor.fetchall()
    print("The Customer details are as
follows : ")

    for x in res:
        print(x)

def Menuset():
    print('Enter 1: To enter customer data.')
    print('Enter 2: For ticketamount.')
    print('Enter 3: Display customerwise
Details.')
    print('Enter 4: Display All Details.')
    print('Enter 5: Exit')
```

```
    userinput=int(input('Enter your
choice:'))
    if userinput==1:
        registercust()
    elif userinput==2:
        ticketprice()
    elif userinput==3:
        dis()
    elif userinput==4:
        dispall()
    elif userinput==5:
        quit()
    else:
        print('Enter correct choice.')

Menuset()
def runagain():
    runagn=input('\nWant to run again? y/n:')
    while runagn=='y':
        Menuset()
        runagn=input('\nWant to run again?
y/n:')
runagain()
```

Chapter:-3
OUTPUT:

```
PS C:\Users\dell> d:
PS D:\> cd .\Codeing\Python\
PS D:\Codeing\Python> py .\AIR.Py
Enter 1: To enter customer data.
Enter 2: For ticketamount.
Enter 3: Display customerwise Details.
Enter 4: Display All Details.
Enter 5: Exit
Enter your choice:1
Enter customer no=98272
Enter name:Rahul
Enter address:Indore
Enter date of journey:2022-05-07
Enter source:Gwalior
Enter destination:Indore

Want to run again? y/n:y
Enter 1: To enter customer data.
The Customer details are as follows :
(2, 'nitin', 'gwalior', 'gwalior', 'delhi', 4000, 2000, 6000)
(98272, 'Rahul', 'Indore', 'Gwalior', 'Indore', 2000, 1000, 3000)

Want to run again? y/n:y
Enter 1: To enter customer data.
Enter 2: For ticketamount.
Enter 3: Display customerwise Details.
Enter 4: Display All Details.
Enter 5: Exit
Enter your choice:5
PS D:\Codeing\Python>
```

```
mysql> select * from pdata;
+--------+----------+---------+------------+---------+-------------+
| custno | custname | addr    | jrdate     | source  | destination |
+--------+----------+---------+------------+---------+-------------+
|      1 | sagar    | indore  | 2022-05-10 | gwalior | indore      |
|      2 | nitin    | gwalior | 2022-05-12 | gwalior | delhi       |
|  98272 | Rahul    | Indore  | 2022-05-07 | Gwalior | Indore      |
+--------+----------+---------+------------+---------+-------------+
3 rows in set (0.02 sec)

mysql> select * from tkt;
+--------+---------+-----------+-------+
| custno | tkt_tot | lug_total | g_tot |
+--------+---------+-----------+-------+
|      2 |    4000 |      2000 |  6000 |
|  98272 |    2000 |      1000 |  3000 |
+--------+---------+-----------+-------+
2 rows in set (0.00 sec)
```

Chapter:-4

RESULT AND DISCUSSION

An airline management system is a software application that is used to manage and organize the various operations of an airline company. It is designed to help airline companies efficiently schedule and plan their flights, manage reservations and ticket sales, and keep track of their financial performance. Some of the key features of an airline management system include:

- Flight scheduling and planning: This feature allows airlines to create and manage their flight schedules, including the routes, destinations, and aircraft that will be used.
- Reservation and ticket sales: This feature allows airlines to manage bookings and ticket sales, including the ability to create and manage seating charts, process ticket orders, and track customer information.
- Financial management: This feature helps airlines track and manage their financial performance, including revenue, expenses, and profits. It can also provide financial reporting and analysis tools to help airlines make informed business decisions.
- Inventory and resource management: This feature helps airlines manage their inventory and resources, including aircraft, crew, and maintenance schedules.

A discussion of the results and effectiveness of an airline management system would depend on the specific goals and objectives of the company using it. In general, however, an effective airline management system should help the company improve its operational efficiency, increase revenue and profits, and provide a better experience for its customers.

Chapter:-5

CONCLUSION:

The specific benefits and outcomes of implementing an airline management system will depend on the system itself and the needs and goals of the airline company. However, in general, an airline management system can potentially help to improve the efficiency and effectiveness of an airline's operations, enhance customer satisfaction, and contribute to the overall profitability of the company. To achieve these benefits, it is important for the airline to carefully consider its specific needs and goals, and to choose a system that is well-suited to meeting them. The system should also be properly configured and implemented, and the airline's staff should be trained on how to use it effectively.