COMPUTER SCIENCE PROJECT

TOPIC: AIRCRAFT DATABASE MANAGEMENT

BY

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CLASS: XII (B)

CONTENTS

ACKNOWLEDGEMENT

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INTRODUCTION

Travelling by air is one of the most common means of transportation today. With majority of the world's population preferring to travel by air, a management system is required to manage the vast data involved in this industry, primarily data concerning the staff and the passengers.

Apart from properly managing the enormous data involved here, a good management system must also make appropriate use of this data to efficiently assign duties to staff members.

Pilots are the most crucial part of any aircraft. A healthy, skilled and well trained pilot guarantees a safe journey for all the travellers. Our program here takes into consideration the age and health status of pilots and the time of arrival and departure of the flight to assign the most efficient pilot for the flight. Crew members too are assigned on similar basis.

Though we could not possibly cover the enormous data involved in this sector, we have tried our best to cover the key aspects.

SYSTEM ANALYSIS

LANGUAGE: **Python**

HARDWARE:

Processor: **Intel(R) Core(TM) i5-3360M**

RAM : **8.00 GB**

HARD DRIVE: **500 GB 7200 RPM hard drive**

PLATFORM: **WINDOWS 7 (64-bit)**

EDITOR: **Microsoft word**

FRONT END: **Python (version: 3.8, 32-bit)**

BACK END: **MySQL**

SYSTEM DESIGN

Here, the project has been divided into different parts or modules for an easy understanding and clear representation.

MODULE DESCRIPTION:

The objective of our project is to make the management of data concerning the aircraft staff and passengers easier. We have the following modules that allow the user to

- *Insert*
- *Display*
- *Update*
- *Delete data related to :*
    - ✓ *Passengers*
    - ✓ *Pilots*
    - ✓ *Crew members*

Our project not just helps manage the above data, but also selects efficient pilots and crew members for any given flight. Our project also selects an appropriate aircraft on the basis of number of passengers.

For storing details of passengers , pilots and crew members , we have used MySQL and the tables being used along with their names are given below:

1.passenger_details:

#stores details of passengers where aadhar_no is being used as primary key.

FIELD	TYPE
seat_no	*char(3)*
aadhar_no	*char(12)*
first_name	*varchar(25)*
last_name	*varchar(25)*
gender	*char(1)*
contact_no	*char(10)*
age	*int(3)*

2. pilot_details :

#stores details of pilots where pilot_id is being used as the primary key.

FIELD	TYPE
pilot_id	*int*
name	*varchar(25)*
gender	*varchar(1)*
age	*int*
contact_details	*varchar(10)*
qualification	*varchar(25)*
working_experience	*int*
health_status	*int*
aircraft_kind	*varchar(25)*

3.crewmember_details:

#stores details of crew members and flight attendants where ID is being used as the primary key.

FIELD	TYPE
ID	*int*
name	*varchar(25)*
age	*int*
qualification	*varchar(50)*
exp	*int*
travelhours	*int*
healthrate	*int*
contact	*varchar(10)*
gender	*varchar(1)*

Source Code

#Menu -- Passenger Details

```
def passenger():
   while True:
      print('-------------------------------------------------------------------------------------------')
      print('          MENU-01          ')
      print('        PASSENGER DETAILS    ')
      print('-------------------------------------------------------------------------------------------')
      print("1.ADD PASSENGER DETAILS")
      print("2.DISPLAY PASSENGER DETAILS")
      print("3.UPDATE PASSENGER DETAILS")
      print("4.DELETE PASSENGER DETAILS --> CANCEL BOOKING")
      print("5.EXIT")
      print('-------------------------------------------------------------------------------------------')
      ch=int(input("Enter your choice:"))
      if ch==1:
         adddata()
      elif ch==2:
         fetchdata()
      elif ch==3:
         updata()
      elif ch==4:
         deldata()
      elif ch==5:
```

```
            print('Exiting')
            break
        else:
            print('Invalid choice')


def adddata():
    import mysql.connector
    while True:
        mydb=mysql.connector.connect(host="localhost",username="root",
                                     passwd="root",database="aircraft")
        mycursor=mydb.cursor()
        mycursor.execute("select * from passenger_details")
        myresult=mycursor.fetchall()
        aadhar=[]
        for i in myresult:
            aadhar.append(i[1])
        tot_seats=['A01','A02','A03','B01','B02','B03','C01','C02','C03','D01','D02',
        'D03','E01','E02','E03','F01','F02','F03','G01','G02','G03','H01','H02','H03']
        print('-----------------------------------------------------')
        print('Available seats:')
        print('-----------------------------------------------------')
        l=[]
        for i in myresult:
            l.append(i[0])
        l.sort()
        avail_seat=[]
```

```
for i in tot_seats:
    if i not in l:
        avail_seat.append(i)
        print(i)
while True:
    sno=input('Enter passenger seat no.:')
    if sno not in avail_seat:
        print('Seat not available')
    else:
        break
while True:
    ano=input('Enter Aadhar no.:')
    if ano in aadhar:
        print('AADHAR NUMBER NOT ORIGINAL. KINDLY ENTER
                                        VALID AADHAR NUMBER.')
    else:
        break
fname=input('Enter first name:')
lname=input('Enter last name:')
gender=input('Enter gender(M/F):')
contactno=int(input('Enter contact no.:'))
age=int(input('Enter age:'))
val="insert into passenger_details values(%s,%s,%s,%s,%s,%s,%s)"
mycursor.execute(val,(sno,ano,fname,lname,gender,contactno,age))
mydb.commit()
ch=input('Want to enter more data?(yes/no)')
```

```
        if ch.lower()=='no':
            break
    def fetchdata():
        import mysql.connector
        from prettytable import PrettyTable
        x=PrettyTable()
        mydb=mysql.connector.connect(host="localhost",username="root",
                                     passwd="root",database="aircraft")
        mycursor=mydb.cursor()
        x.field_names=['SEAT NO','AADHAR NO','FIRST NAME',
                       'LAST NAME','GENDER','CONTACT NO','AGE']
        while True:
            print("--------------------------------------------------------------------------------")
            print("ENTER 1 TO DISPLAY ALL RECORDS")
            print("ENTER 2 TO DISPLAY ONE PARTICULAR RECORD")
            ch=int(input("Enter your choice:"))
            if ch==1:
                passwd=input('Enter Password:')
                if passwd=='p4$$w0rd':
                    mycursor.execute("select * from passenger_details")
                    break
            elif ch==2:
                a=input("Enter Aadhar Number:")
                mycursor.execute("select* from passenger_details where
    aadhar_no='%s' "%(a))
                break
        myresult=mycursor.fetchall()
```

```
    for i in myresult:
        x.add_row(i)
    print(x.get_string())


def updata():
    import mysql.connector
    mydb=mysql.connector.connect(host="localhost",username="root",
                                        passwd="root",database="aircraft")
    mycursor=mydb.cursor()
    mycursor.execute("select * from passenger_details")
    myresult=mycursor.fetchall()
    tot_seats=['A01','A02','A03','B01','B02','B03','C01','C02','C03','D01','D02',
        'D03','E01','E02','E03','F01','F02','F03','G01','G02','G03','H01','H02','H03']
    flag=0
    fname=input('Enter First Name:')
    lname=input('Enter Last Name:')
    sno=input('Enter present seat no.:')
    for i in myresult:
        if i[0]==sno and i[2]==fname and i[3]==lname:
            flag=1
        else:
            continue
    if flag==0:
        print('Kindly check details provided. Passenger not found!')
    while flag==1:
        print('-------------------------------------------------------')
```

```
        print('Available seats:')
        print('-----------------------------------------------------')
        l=[]
        for i in myresult:
            l.append(i[0])
        l.sort()
        avail_seat=[]
        for i in tot_seats:
            if i not in l:
                avail_seat.append(i)
                print(i)
        new_seat=input('Enter new seat no:')
        if new_seat not in avail_seat:
            print('Invalid choice. Kindly choose another seat.')
        else:
            val="update passenger_details set seat_no='%s' where first_name
                    like '%s' and last_name like '%s'"%(new_seat,fname,lname)
            mycursor.execute(val)
            mydb.commit()
            print('Updation successful!')
            break
    def deldata():
        import mysql.connector
        mydb=mysql.connector.connect(host="localhost",username="root",
                                             passwd="root",database="aircraft")
        mycursor=mydb.cursor()
```

```
mycursor.execute("select * from passenger_details")
myresult=mycursor.fetchall()
fname=input('Enter First Name:')
lname=input('Enter Last Name:')
ano=input('Enter Aadhar No.:')
flag=0
for i in myresult:
    if i[1]==ano and i[2]==fname and i[3]==lname:
       flag=1
    else:
       continue
if flag==1:
   mycursor.execute("delete from passenger_details where aadhar_no=
       '%s' and first_name='%s' and last_name='%s' "%(ano,fname,lname))
   mydb.commit()
   print('Booking cancelled. Record deleted.')
elif flag==0:
   print('Passenger not found!')
```

 # Menu -- Pilot Details

```
def pilot():
    while True:
        print('-----------------------------------------------------------------------------------------')
        print("       MENU-02         ")
        print('-----------------------------------------------------------------------------------------')
        print("      PILOT DETAILS    ")
        print('-----------------------------------------------------------------------------------------')
        print("1.ADD PILOT DETAILS")
        print("2.DISPLAY PILOT DETAILS")
        print("3.UPDATE PILOT DETAILS")
        print("4.DELETE PILOT DETAILS")
        print("5.EXIT")
        choice=int(input("Enter your choice:- "))
        if choice==1:
            add_pilot_details()
        elif choice==2:
            display_pilot_details()
        elif choice==3:
            update_pilot_details()
        elif choice==4:
            delete_details()
        elif choice==5:
            break
        else:
            print("Invalid choice")
```

```
def add_pilot_details():
    import mysql.connector
    while True:
        mydb=mysql.connector.connect(host="localhost",user="root",
                                     password="root",database="aircraft")
        mycursor=mydb.cursor()
        mycursor.execute("select*from pilot_details")
        myresult=mycursor.fetchall()
        l=[]
        for i in myresult:
            l.append(int(i[0]))
        while True:
            pilot_id=int(input("Enter ID:- "))
            if pilot_id in l:
                print("THE ID YOU HAVE ENTERED ALREADY EXISTS! PLEASE ENTER
                                                                A VALID ONE.")
            else:
                break
        name=input("Enter Name:- ")
        gender=input("Enter Gender:- ")
        age=int(input("Enter Age:- "))
        contact_details=input("Enter Contact Number:- ")
        qualification=input("Enter Qualification:- ")
        working_experience=int(input("Enter Experience :no.of flying hours:- "))
        health_status=int(input("Enter your current health status( Rate out of
                                                                5 points):- "))
```

```
        print('')
        print('NOTE: PREFERRED AIRCRAFTS:- Airbus A220, Airbus A350,
                                                Boeing 787, Boeing 747-8')
        aircraft_kind=input("Enter Experience :aircraft kind:- ")
        s="insert into pilot_details values(%s,%s,%s,%s,%s,%s,%s,%s,%s)"
        d=(pilot_id,name,gender,age,contact_details,qualification,
                        working_experience,health_status,aircraft_kind)
        mycursor.execute(s,d)
        mydb.commit()
        print("Details added successfully")
        c=input("Want to enter more data?(yes/no):- ")
        if c.lower()=='no':
            break
def display_pilot_details():
    import mysql.connector
    mydb=mysql.connector.connect(host="localhost",user="root",
                                    passwd="root",database="aircraft")
    mycursor=mydb.cursor()
    from prettytable import PrettyTable
    x=PrettyTable()
    x.field_names = ["PILOT ID","NAME","GENDER","AGE",
          "CONTACT DETAILS","QUALIFICATION","WORKING EXPERIENCE",
                        "HEALTH STATUS","EXPERIENCE:AIRCRAFT KIND"]
    while True:
        print("-------------------------------------------------------------------------")
        print("ENTER 1 TO DISPLAY ALL RECORDS")
```

```
        print("ENTER 2 TO DISPLAY ONE PARTICULAR RECORD")
        ch=int(input("Enter your choice:"))
        if ch==1:
            passwd=input('Enter Password:')
            if passwd=='p4$$w0rd':
                mycursor.execute("select*from pilot_details")
                break
        elif ch==2:
            a=int(input("Enter ID:"))
            mycursor.execute("select* from pilot_details where pilot_id='%s' "%(a))
            break
    myresult=mycursor.fetchall()
    for i in myresult:
        x.add_row(i)
    print(x.get_string())


def update_pilot_details():
    print("field names:[pilot_id,name,gender,age,contact_details,qualification,
                                working_experience,health_status,aircraft_kind]")
    import mysql.connector
    mydb=mysql.connector.connect(host="localhost",user="root",
                                            password="root",database="aircraft")
    mycursor=mydb.cursor()
    while True:
        mycursor.execute("select*from pilot_details")
        myresult=mycursor.fetchall()
```

```
        l=[]
        for i in myresult:
            l.append(int(i[0]))
        while True:
            b=int(input("Enter ID:- "))
            if b not in l:
                print("THE ID YOU HAVE ENTERED DOESN'T EXIST! PLEASE ENTER
                                                                A VALID ONE")
            else:
                break
        print("Kindly enter the value to be update as:
                                                <field name>=<updated value>")
        a=input("Enter the value to be updated:- ")
        s="update pilot_details set %s where pilot_id=%s" %(a,b)
        mycursor.execute(s)
        mydb.commit()
        print("Details updated successfully")
        c=input("Want to update more data?(yes/no):- ")
        if c.lower()=='no':
            break

def delete_details():
    import mysql.connector
    mydb=mysql.connector.connect(host="localhost",user="root",
                                            password="root",database="aircraft")
    mycursor=mydb.cursor()
```

```
while True:
    mycursor.execute("select*from pilot_details")
    myresult=mycursor.fetchall()
    l=[]
    for i in myresult:
        l.append(int(i[0]))
    while True:
        b=int(input("Enter ID:-"))
        if b not in l:
            print("THE ID YOU HAVE ENTERED DOESN'T EXIST! PLEASE ENTER
                                                        A VALID ONE")
        else:
            break
    s="delete from pilot_details where pilot_id=%s" %(b)
    mycursor.execute(s)
    mydb.commit()
    print("Record deleted successfully")
    c=input("Want to delete more data?(yes/no)?:- ")
    if c.lower()=='no':
        break
```

#Menu -- Crew Member Details

```
def aircrew():
   while True:
      print('-------------------------------------------------------------------------------------')
      print("        MENU-03         ")
      print('-------------------------------------------------------------------------------------')
      print("      CREW MEMBER DETAILS     ")
      print('-------------------------------------------------------------------------------------')
      print(" 1. ADD DETAILS OF CREW MEMBERS")
      print(" 2. DISPLAY CREW MEMBERS   ")
      print(" 3. UPDATE DETAILS OF CREW MEMBERS")
      print(" 4. DELETE DETAILS OF CREW MEMBERS")
      print(" 5. EXIT                   ")
      print("---------------------------------")
      ch=int(input("Enter your choice:"))
      if ch==1:
         print("      ")
         insert()
      elif ch==2:
         print("            ")
         display()
      elif ch==3:
         update()
         print("_______x________")
      elif ch==4:
         delete()
```

```
        elif ch==5:
            break
        else:
            print("Invalid choice")
    def insert():
        import mysql.connector
        mydb=mysql.connector.connect(host="localhost",user="root",
                                                passwd="root",database="aircraft")
        mycursor=mydb.cursor()
        ans='yes'
        while ans=='yes':
            mycursor.execute("select*from crewmember_details")
            myresult=mycursor.fetchall()
            q=[]
            for i in myresult:
                q.append(int(i[0]))
            while True:
                ID=int(input("Enter Crew Member's ID:"))
                if ID in q:
                    print("THE ID YOU HAVE ENTERED ALREADY EXISTS ! PLEASE
                                                                ENTER A VALID ID")
                else:
                    break
            name=input("Enter Crew Member's Name:")
            qualification=input("Highlight Qualifications (Highest one only):")
            travelhours=int(input("Enter no.of hours of flight experience:"))
```

```
        age=int(input("Enter age(in years):"))
        healthrate=int(input("Enter current health status (rate out of
                                                        5 points):"))
        exp=int(input("Enter working experience (in years):"))
        contact=input("Enter contact number:")
        gender=input("Enter gender:")
        s="insert into crewmember_details values
                                        (%s,%s,%s,%s,%s,%s,%s,%s,%s)"
        v=(ID,name,age,qualification,exp,travelhours,healthrate,contact,gender)
        mycursor.execute(s,v)
        mydb.commit()
        print("Details added successfully")
        print("                    ")
        ans=input("Want to enter more data?(yes/no):")
def display():
    import mysql.connector
    mydb=mysql.connector.connect(host="localhost",user="root",
                                        passwd="root",database="aircraft")
    mycursor=mydb.cursor()
    from prettytable import PrettyTable
    x=PrettyTable()
    x.field_names =["ID","CREW  MEMBER'S NAME", "AGE",
                "QUALIFICATION", "EXPERIENCE","HOURS OF AIR TRAVEL",
                 "HEALTH RATE","CONTACT NO.","GENDER"]
    while True:
        print("--------------------------------------------------------------------------")
```

```
        print("ENTER 1 TO DISPLAY ALL RECORDS")
        print("ENTER 2 TO DISPLAY ONE PARTICULAR RECORD")
        ch=int(input("Enter your choice:"))
        if ch==1:
            passwd=input('Enter Password:')
            if passwd=='p4$$w0rd':
                mycursor.execute("select*from crewmember_details")
                break
        elif ch==2:
            a=int(input("Enter ID:"))
            mycursor.execute("select* from crewmember_details where
                                                        ID='%s' "%(a))
            break
    myresult=mycursor.fetchall()
    l=[]
    for i in myresult:
        x.add_row(i)
    print(x.get_string())


def update():
    print("field names:
          [ID,name,age,qualification,exp,travelhours,healthrate,contact,gender]")
    import mysql.connector
    mydb=mysql.connector.connect(host="localhost",user="root",
                                            passwd="root",database="aircraft")
    mycursor=mydb.cursor()
```

```
    mycursor.execute("select*from crewmember_details")
    myres=mycursor.fetchall()
    l=[]
    for i in myres:
      l.append(i[0])
    ans='yes'
    while ans=='yes':
      while True:
        parg=input("Enter ID of the member:")
        if parg in str(l):
          break
        else:
          print("ID you have entered doesn't exist! please enter a valid ID")
      print("Kindly enter the value to be update as:
                                          <field name>=<updated value>")
      uarg=input("Enter update argument:")
      s="update crewmember_details set %s where ID=%s"%(uarg,parg)
      mycursor.execute(s)
      mydb.commit()
      print("Record updated succesfully")
      ans=input("Want to update more data?(yes/no):")
def delete():
  import mysql.connector
  mydb=mysql.connector.connect(host="localhost",user="root",
                                      passwd="root",database="aircraft")
  mycursor=mydb.cursor()
```

```
mycursor.execute("select*from crewmember_details")
myres=mycursor.fetchall()
l=[]
for i in myres:
   l.append(i[0])
ans='yes'
while ans=='yes':
   while True:
      a=input("Enter the ID of the member to delete:")
      if a in str(l):
         s="delete from crewmember_details where ID=%s" %(a)
         mycursor.execute(s)
         mydb.commit()
         print("Record deleted successfully")
         break
      else:
         print("The ID you have entered doesn't exist! please enter a valid ID:")
   ans=input("Want to delete more records?(yes/no)")
```

```
# Flight Summary
def flight_summary():
    f=open('Flight_details.txt','w')
    print('-------------------------------------------------------------------------------')
    f.write('-------------------------------------------------------------------------------')
    print('FLIGHT SUMMARY')
    f.write('FLIGHT SUMMARY')
    f.write('-------------------------------------------------------------------------------'+'\n')
    print('-------------------------------------------------------------------------------')
    import random
    import mysql.connector
    mydb=mysql.connector.connect(host='localhost',username='root',
                                                passwd='root',database='aircraft')
    mycursor=mydb.cursor()
    mycursor.execute('select count(*) from passenger_details')
    pass_count=(mycursor.fetchone()[0])
    print('No.of passengers:',pass_count)
    s='No.of Passengers:'+str(pass_count)+'\n'
    f.write(s)
#flight selection
    if pass_count<=9:
        craft='Airbus A220'
        print('Aircraft: Airbus A220')
        f.write('Aircraft: Airbus A220'+'\n')
    elif pass_count>9 and pass_count<=15:
        craft='Boeing 787'
```

```
    print('Aircraft: Boeing 787')
    f.write('Aircraft: Boeing 787'+'\n')
elif pass_count>15 and pass_count<=21:
    craft='Airbus A350'
    print('Aircraft: Airbus A350')
    f.write('Aircraft: Airbus A350'+'\n')
elif pass_count>21 and pass_count<=60:
    craft='Boeing 747-8'
    print('Aircraft: Boeing 747-8')
    f.write('Aircraft: Boeing 747-8'+'\n')
f.write('--------------------------------------------------------------------------------'+'\n')
print('--------------------------------------------------------------------------------')
print('Kindly use 24-hr clock system to input time(eg."23.00")')
dept_time=float(input('Enter departure time:'))
f.write('Departure Time:'+str(dept_time)+'\n')
arr_time=float(input('Enter arrival time:'))
f.write('Arrival Time:'+str(arr_time)+'\n')
f.write('--------------------------------------------------------------------------------'+'\n')
print('--------------------------------------------------------------------------------')
origin=input('Enter origin:')
f.write('Origin:'+origin+'\n')
dest=input('Enter destination:')
f.write('Destination:'+dest+'\n')
f.write('--------------------------------------------------------------------------------'+'\n')
print('--------------------------------------------------------------------------------')
```

#Pilot Selection

```
craft="aircraft_kind like "+"'"+craft+"'"
s="select pilot_id from pilot_details where health_status>3 and "+craft
mycursor.execute(s)
pilot_id=mycursor.fetchall()
pilot1=[]
for i in pilot_id:
    mycursor.execute('select*from pilot_details where pilot_id = %s'%i[0])
    p=mycursor.fetchone()
    pilot1.append(p)
pilot=[]
for j in pilot1:
    if (dept_time>18.00 or dept_time<6.00) and arr_time<06.00:
        if j[3]<50:
            pilot.append(j)
    else:
            pilot.append(j)
from prettytable import PrettyTable
x=PrettyTable()
x.field_names=['PILOT ID','NAME','GENDER','AGE',
      'CONTACT NUMBER','QUALIFICATION','NO. OF FLYING HOURS',
                          'HEALTH STATUS','EXPERIENCE: AIRCRAFT KIND']
print('    ')
print('THE ASSIGNED PILOTS ARE:')
f.write('THE ASSIGNED PILOTS ARE:'+'\n')
p1=random.choice(pilot)
```

```
    x.add_row(p1)
    f.write(str(p1)+'\n')
    while True:
        p2=random.choice(pilot)
        if p2!=p1:
            x.add_row(p2)
            f.write(str(p2)+'\n')
            break
    print(x)
    print('   ')
    f.write('-------------------------------------------------------------------------------------'+'\n')
```

#Crew Members Selection

```
    mycursor.execute("select * from crewmember_details where age<30
                                        and healthrate>3 and travelhours>12")
    cm=mycursor.fetchall()
#no of flight attendants
    y=PrettyTable()
    y.field_names=['ID','NAME','AGE','QUALIFICATION','EXPERIENCE',
                   'TRAVEL HOURS','HEALTH STATUS','CONTACT NO.','GENDER']
    print("THE ASSIGNED ATTENDANTS ARE:")
    f.write("THE ASSIGNED ATTENDANTS ARE:"+'\n')
    if pass_count<9:
        a=random.sample(cm,k=3)
        for i in a:
            y.add_row(i)
```

```
        f.write(str(i)+'\n')
    elif 9<pass_count<15:
        a1=random.sample(cm,k=8)
        for i in a1:
            y.add_row(i)
            f.write(str(i)+'\n')
    elif 15<pass_count<21:
        a2=random.sample(cm,k=13)
        for i in a2:
            y.add_row(i)
            f.write(str(i)+'\n')
    elif 21<pass_count<60:
        a3=random.sample(cm,k=25)
        for i in a3:
            y.add_row(i)
            f.write(str(i)+'\n')
    print(y)
    f.write('--------------------------------------------------------------------------------'+'\n')
    f.close()
```

#Main Menu

```
while True:
    print('-----------------------------------------------------------------------------------------')
    print("    MAIN MENU   ")
    print('-----------------------------------------------------------------------------------------')
    print("1. PASSENGER_DETAILS")
    print("2. PILOT_DETAILS   ")
    print("3. CREW MEMBER_DETAILS")
    print("4. FLIGHT SUMMARY")
    print("5. EXIT         ")
    choice=int(input("Enter your choice:"))
    if choice==1:
        passenger()
    elif choice==2:
        pilot()
    elif choice==3:
        aircrew()
    elif choice==4:
        passwd=input('Enter Password:')
        if passwd=='p4$$w0rd':
            flight_summary()
    elif choice==5:
        break
    else:
        print("Invalid choice")
```

OUTPUT

Main menu:

```
--------------------------------------------------------------------------------
    MAIN MENU
--------------------------------------------------------------------------------
1. PASSENGER_DETAILS
2. PILOT_DETAILS
3. CREW MEMBER_DETAILS
4. FLIGHT SUMMARY
5. EXIT
Enter your choice:1
--------------------------------------------------------------------------------
          MENU-01
        PASSENGER DETAILS
--------------------------------------------------------------------------------
1.ADD PASSENGER DETAILS
2.DISPLAY PASSENGER DETAILS
3.UPDATE PASSENGER DETAILS
4.DELETE PASSENGER DETAILS --> CANCEL BOOKING
5.EXIT
--------------------------------------------------------------------------------
Enter your choice:5
Exiting
--------------------------------------------------------------------------------
    MAIN MENU
--------------------------------------------------------------------------------
1. PASSENGER_DETAILS
2. PILOT_DETAILS
3. CREW MEMBER_DETAILS
4. FLIGHT SUMMARY
5. EXIT
Enter your choice:5
>>>
```

Adding passenger details:

```
-----------------------------------------------------------------------------------------------
          MENU-01
        PASSENGER DETAILS
-----------------------------------------------------------------------------------------------
1.ADD PASSENGER DETAILS
2.DISPLAY PASSENGER DETAILS
3.UPDATE PASSENGER DETAILS
4.DELETE PASSENGER DETAILS --> CANCEL BOOKING
5.EXIT
-----------------------------------------------------------------------------------------------
Enter your choice:1
-----------------------------------------------------------
Available seats:
-----------------------------------------------------------
A01
A02
A03
B01
B02
B03
C01
C02
C03
D01
D02
D03
E01
E02
E03
F01
F02
F03
G01
G02
G03
H01
H02
H03
Enter passenger seat no.:A01
Enter Aadhar no.:2342 5672 8979
Enter first name:John
Enter last name:Michael
```

```
Enter passenger seat no.:A01
Enter Aadhar no.:2342 5672 8979
Enter first name:John
Enter last name:Michael
Enter gender(M/F):M
Enter contact no.:9789039987
Enter age:27
Want to enter more data?(yes/no)no
-----------------------------------------------------------------------------------------------
          MENU-01
        PASSENGER DETAILS
-----------------------------------------------------------------------------------------------
1.ADD PASSENGER DETAILS
2.DISPLAY PASSENGER DETAILS
3.UPDATE PASSENGER DETAILS
4.DELETE PASSENGER DETAILS --> CANCEL BOOKING
5.EXIT
-----------------------------------------------------------------------------------------------
Enter your choice:5
Exiting
-----------------------------------------------------------------------------------------------
    MAIN MENU
-----------------------------------------------------------------------------------------------
1. PASSENGER_DETAILS
2. PILOT_DETAILS
3. CREW MEMBER_DETAILS
4. FLIGHT SUMMARY
5. EXIT
Enter your choice:
```

Displaying pilot details:

```
Enter your choice:2
--------------------------------------------------------------------------------
      MENU-02
--------------------------------------------------------------------------------
     PILOT DETAILS
--------------------------------------------------------------------------------
1.ADD PILOT DETAILS
2.DISPLAY PILOT DETAILS
3.UPDATE PILOT DETAILS
4.DELETE PILOT DETAILS
5.EXIT
Enter your choice:- 2
--------------------------------------------------------------------------
ENTER 1 TO DISPLAY ALL RECORDS
ENTER 2 TO DISPLAY ONE PARTICULAR RECORD
Enter your choice:1
Enter Password:p4$$w0rd
+---------+------------+-------+----+--------------+----------------------+------------------+-------------+------------------------+
| PILOT ID |    NAME    | GENDER | AGE | CONTACT DETAILS |     QUALIFICATION      | WORKING EXPERIENCE | HEALTH STATUS | EXPERIENCE:AIRCRAFT KIND |
+---------+------------+-------+----+--------------+----------------------+------------------+-------------+------------------------+
|    1    | sree varsha |   F   |  26 |   7890865789   | bachelors in aeronautics |        26        |      5      |      Airbus A220       |
|    2    |     john    |   M   |  34 |   8754984976   |  bachelors in aviation   |        28        |      5      |       Boeing 787       |
|    3    |   sneha S   |   F   |  29 |   9360898767   | bachelors in aeronautics |        27        |      5      |      Airbus A220       |
|    4    |  Radhika S  |   F   |  31 |   9876567465   |  bachelors in chemistry  |        30        |      5      |      Airbus A220       |
|    5    |    vinodh   |   M   |  25 |   9150098987   |    bachelors in maths    |        26        |      4      |       Boeing 787       |
|    6    |     ram     |   M   |  38 |   8768987896   |  bachelors in aviation   |        25        |      5      |      Airbus A350       |
|    7    |   krishna   |   M   |  31 |   7898098567   |  bachelors in aviation   |        29        |      4      |      Airbus A350       |
+---------+------------+-------+----+--------------+----------------------+------------------+-------------+------------------------+
--------------------------------------------------------------------------------
```

```
--------------------------------------------------------------------------------
      MENU-02
--------------------------------------------------------------------------------
     PILOT DETAILS
--------------------------------------------------------------------------------
1.ADD PILOT DETAILS
2.DISPLAY PILOT DETAILS
3.UPDATE PILOT DETAILS
4.DELETE PILOT DETAILS
5.EXIT
Enter your choice:- 2
--------------------------------------------------------------------------
ENTER 1 TO DISPLAY ALL RECORDS
ENTER 2 TO DISPLAY ONE PARTICULAR RECORD
Enter your choice:2
Enter ID:6
+---------+------+--------+----+--------------+--------------------+------------------+-------------+------------------------+
| PILOT ID | NAME | GENDER | AGE | CONTACT DETAILS |     QUALIFICATION     | WORKING EXPERIENCE | HEALTH STATUS | EXPERIENCE:AIRCRAFT KIND |
+---------+------+--------+----+--------------+--------------------+------------------+-------------+------------------------+
|    6    | ram  |   M    |  38 |   8768987896   | bachelors in aviation |        25        |      5      |      Airbus A350       |
+---------+------+--------+----+--------------+--------------------+------------------+-------------+------------------------+
--------------------------------------------------------------------------------
```

Updating and deleting crew member details:

```
--------------------------------------------------------------------------------------------------
        MENU-03
--------------------------------------------------------------------------------------------------
      CREW MEMBER DETAILS
--------------------------------------------------------------------------------------------------
 1. ADD DETAILS OF CREW MEMBERS
 2. DISPLAY CREW MEMBERS
 3. UPDATE DETAILS OF CREW MEMBERS
 4. DELETE DETAILS OF CREW MEMBERS
 5. EXIT
---------------------------------
Enter your choice:3
field names: [ID,name,age,qualification,exp,travelhours,healthrate,contact,gender]
Enter ID of the member:2
Kindly enter the value to be update as: <field name>=<updated value>
Enter update argument:age=24
Record updated succesfully
Want to update more data?(yes/no):no
_______x________
--------------------------------------------------------------------------------------------------
        MENU-03
--------------------------------------------------------------------------------------------------
      CREW MEMBER DETAILS
--------------------------------------------------------------------------------------------------
 1. ADD DETAILS OF CREW MEMBERS
 2. DISPLAY CREW MEMBERS
 3. UPDATE DETAILS OF CREW MEMBERS
 4. DELETE DETAILS OF CREW MEMBERS
 5. EXIT
---------------------------------
Enter your choice:4
Enter the ID of the member to delete:11
Record deleted successfully
Want to delete more records?(yes/no)no
--------------------------------------------------------------------------------------------------
```

ID	CREW MEMBER'S NAME	AGE	QUALIFICATION	EXPERIENCE	HOURS OF AIR TRAVEL	HEALTH RATE	CONTACT NO.	GENDER
1	deepa nair	28	pg aircrew	2	15	5	8754984978	F
2	rekha	24	PG airhostess	2	18	5	9456785909	F
3	Sneha S	24	diploma in management	5	20	5	9360876987	F
4	michael	27	bachelors degree in civil aviation	3	16	5	9789034567	M
5	vikram	30	aeronautical engineering	4	26	5	7897867987	M
6	anish	32	bachelors in maths	6	26	5	8798098089	M
7	divya menon	24	PG aircrew	2	14	4	9789039947	F
8	VARUN	21	bachelors degree in civil aviation	0	16	4	9360954938	M
9	shalini	25	PG airhostess	2	21	4	9876789678	F
10	Das	31	aeronautical engineering	7	28	4	8987098789	M

Flight summary:

```
Enter your choice:4
Enter Password:p4$$w0rd
--------------------------------------------------------------------------------
FLIGHT SUMMARY
--------------------------------------------------------------------------------
No.of passengers: 13
Aircraft: Boeing 787
--------------------------------------------------------------------------------
Kindly use 24-hr clock system to input time(eg."23.00")
Enter departure time:21.00
Enter arrival time:22.00
--------------------------------------------------------------------------------
Enter origin:chennai
Enter destination:delhi
--------------------------------------------------------------------------------

THE ASSIGNED PILOTS ARE:
+----------+--------+--------+-----+---------------+---------------------+--------------------+-------------+--------------------------+
| PILOT ID |  NAME  | GENDER | AGE | CONTACT NUMBER |    QUALIFICATION    | NO. OF FLYING HOURS | HEALTH STATUS | EXPERIENCE: AIRCRAFT KIND |
+----------+--------+--------+-----+---------------+---------------------+--------------------+-------------+--------------------------+
|    5     | vinodh |   M    |  25 |   9150098987  |  bachelors in maths |         26         |      4      |        Boeing 787        |
|    2     |  john  |   M    |  34 |   8754984976  | bachelors in aviation |         28         |      5      |        Boeing 787        |
+----------+--------+--------+-----+---------------+---------------------+--------------------+-------------+--------------------------+

THE ASSIGNED ATTENDANTS ARE:
+----+-------------+-----+---------------------------------+-----------+-------------+--------------+------------+--------+
| ID |     NAME    | AGE |          QUALIFICATION          | EXPERIENCE | TRAVEL HOURS | HEALTH STATUS | CONTACT NO. | GENDER |
+----+-------------+-----+---------------------------------+-----------+-------------+--------------+------------+--------+
| 3  |   Sneha S   |  24 |      diploma in management      |     5     |      20      |       5      | 9360876987 |   F    |
| 4  |   michael   |  27 | bachelors degree in civil aviation |     3     |      16      |       5      | 9789034567 |   M    |
| 9  |   shalini   |  25 |          PG airhostess          |     2     |      21      |       4      | 9876789678 |   F    |
| 1  |  deepa nair |  28 |            pg aircrew           |     2     |      15      |       5      | 8754984978 |   F    |
| 8  |    VARUN    |  21 | bachelors degree in civil aviation |     0     |      16      |       4      | 9360954938 |   M    |
| 11 |    rahul    |  26 |      diploma in management      |     3     |      16      |       5      | 9890876899 |   M    |
| 7  | divya menon |  24 |            PG aircrew           |     2     |      14      |       4      | 9789039947 |   F    |
| 2  |    rekha    |  23 |          PG airhostess          |     2     |      18      |       5      | 9456785909 |   F    |
+----+-------------+-----+---------------------------------+-----------+-------------+--------------+------------+--------+
--------------------------------------------------------------------------------
```

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