DELHI PUBLIC SCHOOL

RANIPUR , HARIDWAR

INFORMATICS PRACTICES

PROJECT ON
'HOTEL MANAGEMENT'
SESSION : 2022 - 23

SUBMITTED BY :
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ADMN. NO. : 2009/0287
CLASS : XII

SUBMITTED TO :
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CERTIFICATE

This is hereby to certify that the project entitled on Hotel management system Of Informatics practices is an original and genuine work carried out by IKJOT SINGH of class XII C as per the requirement for the CBSE Board examination for the year 2022-23.

Examiner:_____

Name:_____

Date:_____

Signature:

ACKNOWLWDGEMENT:

Apart from the effort of me, the success of any project depends largely on the encouragenment and guidelines of many others. I take this opportunity to express our gratitude to the people who have been instrumental in the successful completion of this project. I would like to express my special thanks of gratitude to our Informatics Practices teacher "MR KUMAR GAURAV"for their guidance and support in completion of this project.

NAME-IKJOT SINGH

ROLLNO-31

CLASS-XII-C

Index :

AIM : To Develop Hotel Management System

Title: Hotel Management System

Problem Definition:

Develop a software named Hotel Management System to

Automate manual functions of a Hotel. The software should helps to

manage the entire Hotel operations from maintaining Rooms records,

Customers record to check-in and check-out in the Hotel. Introduce

various kinds or analysis and data visualization too. Make it easier to

search for rooms, customers and booking details for Hotel Management

staff instantly.

reason for choosing the topic:

☐ To reduce the manual work to manage Hotel's room Booking etc.

☐ To save time and reduced overheads.

☐ To increase Hotel's staff efficiencies.

☐ To remove manual processes in the Hotel booking etc.

☐ To perform day to day Hotel operations electronically.

The Hotel management system is designed to meet the following

objectives:

☐ Simple and easy to operate

☐ Increase Hotel's staff efficiencies

☐ Search, add, update, and view Room's and booking details

☐ Helps to manage Hotel's functions constructively

☐ Saves time and reduces overheads

☐ Reduce Hotel's operating cost

☐ Customized reports for better management

☐ Remove manual processes to book rooms, check-in & check-out

and maintain records and produce daily reports

Advantages:

☐ Sometime it happens that the rooms get booked soon when one visits the place therefore user can make advance booking using this system.

☐ It saves user time in searching a room.

☐ The system is useful as it calculates an exact cost of rooms for requested number of days.

☐ It saves organization resources and expenses.

☐ This system is effective and saves time and cost of users.

LIMITATIONS OF PROJECT:

1- Hard copy of any report cannot be printed

2- Different login platforms for administrators, students and parents is missing

3- Online and remote operation is missing

4- Internet and cloud based database is missing

5- The booking process usually requires a customer identity, which this system is missing.

HARDWARE AND SOFTWARE REQUIREMENT

Hardware Requirements:

☐ A computer or laptop with operating system:- windows 7 or above

☐ x86 64-bit CPU (Intel / AMD architecture)

☐ 4 GB RAM

☐ 5 GB free disk space.

Software Requirements:

- **Python 3.6.x or higher version**
- **Pandas library preinstalled**
- **Matplotlib library preinstalled**
- **Ms-Office Pre-installed for documentation**

<u>OPERATING SYSTEM</u>

Windows 7.0 Onwards

Windows 7 is a major release of the Windows NT operating system developed by Microsoft. It was released to manufacturing on July 22, 2009, and became generally available on October 22, 2009. It is the successor to Windows Vista, released nearly three years earlier

OVERVIEW OF PYTHON 3.7 (32 BIT)

Python is an interpreter, object-oriented, high-level programming language with dynamic semantics. It was developed by Guido Van Rossum.
Its high-level built in data structures, combined with dynamic typing and dynamic binding; make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together.
Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program

maintenance. Python supports modules and packages,
which encourages program modularity and code
reuse.

PYTHON LIBRARY - PYTHON PANDAS:

Pandas is a Python library for data analysis. Started
by Wes McKinney in 2008 out of a need for a
powerful and flexible quantitative analysis tool,
pandas has grown into one of the most popular
Python libraries. It has an extremely
active community of contributors.

Pandas is built on top of two core Python libraries—
matplotlib for data visualization and NumPy for
mathematical operations. Pandas acts as a wrapper
over these libraries, allowing you to access many of
matplotlib's and NumPy's methods with less code. For
instance, pandas' .plot() combines multiple matplotlib
methods into a single method, enabling you to plot a

chart in a few lines.

Before pandas, most analysts used Python for data

munging and preparation, and then switched to a

more domain specific language like R for the rest of

their workflow. Pandas introduced two new types

of objects for storing data that make analytical tasks

easier and eliminate the need to switch tools: Series,

which have a list-like structure, and Data Frames,

which have a tabular structure.

CSV FILE:-

 A comma-separated values file is a delimited text file that uses a comma to separate values. Each line of the file is a data record. Each record consists of one or more fields, separated by commas. The use of the comma as a field separator is the source of the name for this file format.

CSV FILES USED:

CUSTOMER.CSV

	A	B	C	D	E
1	cust_id	cust_name	Age	Contact	Address
2	1101	Aman Mishra	20	9711173176	A-34, Sec-5 R K Puram, ND-22
3	1102	Kanti Devi	34	9911399410	A-234, Sec-3, R K Puram, ND-22
4	1103	Shantanu Singh	40	9722273164	HNO-12,FF Elclave, New Delhi-24
5	1104	Sunita	45	9160770011	A-560, Vasant Vihar, New Delhi-23
6	1105	Dharmender	32	9911788320	C-11, Vasant Vihar, ND-24
7	1106	Vaibhav	20	7065789011	HNO-23,Noida, UP
8	1107	Anubhav	30	9818991234	34-A,Kidwai Ngr
9	1108	Anmol Gupta	24	9722287890	62-A/2, Pkt-B, Vasant Kunj
10	1109	Kamal Kant	22	9811176187	23-A, Arjun Nagar
11	1110	Girija	45	8023452111	56/A, Palam Vihar
12	1111	Karuna Gupta	23	9811000222	45-B, Sec-3 R K Puram
13	1112	Ramesh	25	8091908100	23-A, Ashok Vihar

ROOM.CSV

	A	B	C	D	E	F
1	roomno	floor	type	charge	facility	status
2	101	1	Normal	800	Single bed TV small Cooler inverter Chair stool	V
3	102	1	Normal	800	Single bed TV small Cooler inverter Chair stool	V
4	103	1	Normal	1000	Single bed TV small Cooler inverter Chair stool	V
5	104	1	Normal	1000	Single bed TV small Cooler inverter Chair stool	V
6	105	1	Normal	1000	Single bed TV small Cooler inverter Chair stool	V
7	201	2	Semi Delux	2000	Double bed TV big AC inverter Sofa Table	V
8	202	2	Semi Delux	2000	Double bed TV big AC inverter Sofa Table	V
9	203	2	Semi Delux	2000	Double bed TV big AC inverter Sofa Table	V
10	204	2	Semi Delux	2000	Double bed TV big AC inverter Sofa Table	V
11	205	2	Semi Delux	2000	Double bed TV big AC inverter Sofa Table	V
12	301	3	Delux	3000	Double bed TV big AC inverter Sofa Table 24x7 service breakfast 2-Tea	V
13	302	3	Delux	3000	Double bed TV big AC inverter Sofa Table 24x7 service breakfast 2-Tea	V
14	303	3	Delux	3000	Double bed TV big AC inverter Sofa Table 24x7 service breakfast 2-Tea	V
15						V

TRANSACTION.CSV

	A	B	C	D	E	F	G
1	roomno	cust_id	dt_book	dt_checkin	dt_checkout	days	bill
2	103	1101	8/2/2022	8/2/2022	15/02/2022	7	7000
3	104	1102	8/2/2022	8/2/2022	12/2/2022	4	4000
4	105	1105	8/2/2022	8/2/2022	12/2/2022	4	4000
5	102	1105	8/2/2022	8/2/2022	20/02/2022	12	9600
6	101	1106	19/12/2022	19/12/2022	25/12/2022	6	4800

SOURCE CODE-

```python
import pandas as pd
import numpy as np
from datetime import date
from datetime import datetime
import time


def menu():

    while True:
        print("          HOTEL  MANAGEMENT SYSTEM")
        print("        H O T E L   H Y A T T   R E G E N C Y")
        print("        ****************************************")
        print()
        print("          1- ROOMS")
        print("          2- CUSTOMERS")
        print("          3- CHECK-IN/CHECK-OUT")
        print("          4- VISUALIZATION")
        print("          5- ANALYTICS/QUERY")

    print("          6- E X I T")
        ch=int(input("      Enter your choice [1-6] :"))
        if ch==1:
            rooms_entry()
        elif ch==2:
            customers()
        elif ch==3:
            booking()
        elif ch==4:
            visualization()
        elif ch==5:
            analytics()
        else:
            str="THANK YOU VERY MUCH FOR USING HOTEL MANAGEMENT SYSTEM.
EXITING....."
            for k in str:
                print(k,end='')
                time.sleep(0.1)
            break


#*******************************************************************
def rooms_entry():
    while True:
        print("          R O O M S   M E N U")
        print("        *********************")
        print()
        print("          1- Add New Rooms")
        print("          2- Delete old Rooms")
        print("          3- Edit detail of the Rooms")
```

```python
        print("            4- B A C K")
        ch=int(input("      Enter your choice [1-4] :"))
        if ch==1:
            add_rooms()
        elif ch==2:
            del_rooms()
        elif ch==3:
            edit_rooms()
        else:
            print("Going back to Main Menu")
            break

#********************************************************************
def customers():
    while True:
        print("            C U S T O M E R   M E N U")
        print("            **************************")
        print()
        print("            1- Add Customers")
        print("            2- Delete Customers")
        print("            3- Edit detail of the Customer")
        print("            4- B A C K")
        ch=int(input("      Enter your choice [1-4] :"))
        if ch==1:
            add_customer()
        elif ch==2:
            del_customer()
        elif ch==3:
            edit_customer()
        else:
            print("Going back to Main Menu")
            break


#********************************************************************
def booking():
    dftrans=pd.read_csv("transaction.csv")
    print(dftrans)
    while True:
        print("            B O O K I N G   M E N U")
        print("            **************************")
        print()
        print("            1- Check-in a Room")
        print("            2- Check-out and Bills")
        print("            3- B A C K")
        ch=int(input("      Enter your choice [1-3] :"))
        if ch==1:
            book_room()
        elif ch==2:
            check_out()
        else:
            print("Going back to Main Menu")
            break


#*********************************************
def add_rooms():
    dfrooms=pd.read_csv("rooms.csv")
```

```python
        ans='y'
        rno=0
        while ans=='y' or ans=='Y':
            rno=int(input("Enter Room no :"))
            flno=int(input("Enter Floor no :"))
            typ=input("Enter Room Type :")
            chrg=float(input("Enter Charge :"))
            facil=input("Enter Facilities :")
            stat=input("Enter Status ( V-Vacant, O-Occupied):")
            data=[rno,flno,typ,chrg,facil,stat]
            dfrooms.loc[len(dfrooms)]=data
            dfrooms.to_csv("rooms.csv",index=False)
            print("A New Room's data added Successfully....")
            ans=input("Do you want to add more Rooms?")
        print(dfrooms)


    #***************************************
    def del_rooms():
        dfrooms=pd.read_csv("rooms.csv")
        ans='y'
        rno=0
        while ans=='y' or ans=='Y':
            rno=int(input("Enter Room no :"))
            if rno in dfrooms['roomno'].values:
                response=input("Do you really want to remove this Room's
    data(Y/N)?")
                if response=='y' or response=='Y':

    dfrooms.drop(dfrooms[dfrooms['roomno']==rno].index,inplace=True)
                    print("Room No -",rno,"has been deleted
    successfully...")
            else:
                print("Room is not found...")

            dfrooms.to_csv("rooms.csv",index=False)
            ans=input("Do you want to delete more rooms?")
        print(dfrooms)


    def edit_rooms():
        dfrooms=pd.read_csv("rooms.csv")
        print(dfrooms)
        ans='y'
        rno=0
        while ans=='y' or ans=='Y':
            rno=int(input("Enter Room No :"))
            if rno in dfrooms['roomno'].values:
                nm=input("Enter the column name to change: ")
                val1=eval(input("Enter it's value: if string in quotes(''):
    "))
                dfrooms.loc[(dfrooms['roomno'] == rno),nm]=val1
                print("Room -",rno,"has been updated successfully...")
                print(dfrooms.loc[dfrooms['roomno']==rno])

            else:
                print("Room number not found...")
```

```python
        dfrooms.to_csv("rooms.csv",index=False)
        ans=input("Do you want to edit more room's detail?")
    print(dfrooms)



#*************************************************
def add_customer():
    dfcust=pd.read_csv("customer.csv")
    ans='y'
    cid=0
    while ans=='y' or ans=='Y':
        df=dfcust.sort_values(by='cust_id')
        df=df.tail(1)
        cid=df.iloc[0,0]+1
        print("New Customer id : ",cid)
        cst_nam=input("Enter Customer Name :")
        age=int(input("Enter Age :"))
        phno=int(input("Enter Contact :"))
        addr=input("Enter Address :")
        data=[cid,cst_nam,age,phno,addr]
        dfcust.loc[len(dfcust)]=data
        dfcust.to_csv("customer.csv",index=False)
        print("A New Customer added Successfully....")
        ans=input("Do you want to add more Customers?")
    print(dfcust)



def del_customer():
    dfcust=pd.read_csv("customer.csv")
    ans='y'
    cid=0
    while ans=='y' or ans=='Y':
        cid=int(input("Enter customer id :"))
        if cid in dfcust['cust_id'].values:
            print(dfcust.loc[dfcust.cust_id==cid,['cust_name','Age']])
            ans=input("Do you want to really delete it(Y/N)")
            if ans=='y' or ans=='Y':

dfcust.drop(dfcust[dfcust['cust_id']==cid].index,inplace=True)
                print("Customer id -",cid,"has been deleted
successfully...")
        else:
            print("Customer is not found...")

        dfcust.to_csv("customer.csv",index=False)
        ans=input("Do you want to delete more customer?")
    print(dfcust)



#*********************************************************
def edit_customer():
    dfcust=pd.read_csv("customer.csv")
    print(dfcust)
    ans='y'
    cid=0
    while ans=='y' or ans=='Y':
        cid=int(input("Enter Customer id :"))
```

```python
        if cid in dfcust['cust_id'].values:
            nm=input("Enter the column name to change: ")
            val1=eval(input("Enter it's value: if string in quotes(''):
"))
            dfcust.loc[(dfcust['cust_id'] == cid),nm]=val1
            print("Customer id -",cid,"has been updated
successfully...")
            print(dfcust.loc[dfcust['cust_id']==cid])

        else:
            print("Customer is not found...")

        dfcust.to_csv("customer.csv",index=False)
        ans=input("Do you want to edit more Customers?")
    print(dfcust)


#***********************************************************
def book_room():
    dfrooms=pd.read_csv("rooms.csv")
    dfcust=pd.read_csv("customer.csv")
    dftrans=pd.read_csv("transaction.csv")
    ans='y'
    while ans=='y' or ans=='Y':
        cid=int(input("Enter Customer id: "))
        rno=int(input("Enter Room No: "))
        if cid in dfcust['cust_id'].values:
            print(dfcust.loc[dfcust.cust_id==cid,['cust_name','Age']])
            if rno in dfrooms['roomno'].values:
                stat=dfrooms.loc[dfrooms['roomno'] == rno,
'status'].values[0]
                if (stat=='V'):
                    ans=input("Do you want to check-in (y/n)?")
                    dt_bk=input("Please Enter date of booking/check-
in(dd/mm/yyyy): ")
                    if ans.upper()=='Y':
                        dt_chkin=dt_bk

dfrooms.loc[dfrooms['roomno']==rno,'status']='O'

data=[rno,cid,dt_bk,dt_chkin,np.NaN,np.NaN,np.NaN]
                        dftrans.loc[len(dftrans)]=data
                        print("Room booked/checked-in Successfully...")
                else:
                    print("Room not Vacant...")
            else:
                print("This Room no is not found...")
        else:
            print("This Customer does not exists...")

        dftrans.to_csv("transaction.csv",index=False)
        dfrooms.to_csv("rooms.csv",index=False)
        dfcust.to_csv("customer.csv",index=False)
        ans=input("Do you want to do more booking?")
    print(dftrans)



#***********************************************************
def check_out():
```

```python
    dfrooms=pd.read_csv("rooms.csv")
    dfcust=pd.read_csv("customer.csv")
    dftrans=pd.read_csv("transaction.csv")
    ans='y'
    while ans=='y' or ans=='Y':
        cid=int(input("Enter Customer id: "))
        rno=int(input("Enter Room number doing check-out:"))
        cond1=((dftrans.cust_id==cid) & (dftrans.roomno==rno) &
(dftrans.dt_checkout.isnull()))
        cond2=((dfrooms.roomno==rno) & (dfrooms.status=='O'))
        if cond1.any() and cond2.any():
            dt_out=input("Please Enter date of check-out(dd/mm/yyyy):
")
            dftrans.loc[(dftrans['cust_id'] == cid) &
(dftrans['roomno'] == rno) & (dftrans['dt_checkout'].isnull()),
'dt_checkout']=dt_out
            dfrooms.loc[dfrooms.roomno == rno, 'status']='V'
            chrg=dfrooms.loc[dfrooms.roomno==rno,'charge'].values[0]
            dt_in=dftrans.loc[(dftrans['cust_id'] == cid) &
(dftrans['roomno'] == rno), 'dt_checkin'].values[0]

            # Calculating Fine
            date_dt1 = datetime.strptime(dt_in, '%d/%m/%Y')
            date_dt2 = datetime.strptime(dt_out, '%d/%m/%Y')
            ndays=date_dt2-date_dt1

            n_days=ndays.days

            mbill=n_days*chrg
            dftrans.loc[(dftrans['cust_id'] == cid) &
(dftrans['roomno'] == rno), 'days']=n_days
            dftrans.loc[(dftrans['cust_id'] == cid) &
(dftrans['roomno'] == rno), 'bill']=mbill

            print("Total Bill Rs.",mbill)
            print("Check out done Successfully...")

            dftrans.to_csv("transaction.csv",index=False)
            dfrooms.to_csv("rooms.csv",index=False)
            dfcust.to_csv("customer.csv",index=False)

        else:
            print("Room is already Vacant or Billing/check out already
done")

        ans=input("Do you want to do more Checkout?")




#*********************************************************
def analytics():
    dfrooms=pd.read_csv("rooms.csv")
    dfcust=pd.read_csv("customer.csv")
    dftrans=pd.read_csv("transaction.csv")
```

```python
while True:
    print("          A N A L Y S I S   M E N U")
    print("          *************************")
    print()
    print("          1- All Rooms")
    print("          2- All Customers")
    print("          3- Search Rooms (Number wise)")
    print("          4- Search Rooms (Type wise)")
    print("          5- Search Customer (ID wise)")
    print("          6- Search Customer (Name wise)")
    print("          7- Booked Room (Date wise)")
    print("          8- Back to Main Menu")
    ch=int(input("     Enter your choice [1-8] :"))
    if ch==1:
        print(dfrooms)
    elif ch==2:
        print(dfcust)
    elif ch==3:
        rno=int(input("Please Enter Room Number: "))
        print(dfrooms.loc[dfrooms.roomno==rno])
    elif ch==4:
        rtype=input("Please Enter Room Type: ")
        print(dfrooms.loc[dfrooms.type==rtype])
    elif ch==5:
        cid=int(input("Please Enter Customer ID: "))
        print(dfcust.loc[dfcust.cust_id==cid])
    elif ch==6:
        c_nm=input("Please Enter Customer Namee: ")
        length=len(dfcust)
        for i in range(length):
            if c_nm in dfcust.cust_name[i]:
                print(dfcust.cust_id[i],"--
>",dfcust.cust_name[i],"-->",dfcust.Address[i])
    elif ch==7:
        dt_buk=input("Please Enter Date of Booking: ")
        print(dftrans.loc[dftrans.dt_book==dt_buk])
    else:
        print("Going back to Main Menu")
        break
```

OUTPUT-

```
                HOTEL   MANAGEMENT SYSTEM
            H O T E L   H Y A T T   R E G E N C Y
            ***************************************

            1- ROOMS
            2- CUSTOMERS
            3- CHECK-IN/CHECK-OUT
            4- VISUALIZATION
            5- ANALYTICS/QUERY
            6- E X I T
        Enter your choice [1-6] :1
            R O O M S   M E N U
            **********************

            1- Add New Rooms
            2- Delete old Rooms
            3- Edit detail of the Rooms
            4- B A C K
        Enter your choice [1-4] :1
Enter Room no :304
Enter Floor no :3
Enter Room Type :Delux
Enter Charge :3000
Enter Facilities :Double bed TV big AC inverter Sofa Table 24x7 service breakfas
t 2-Tea
Enter Status ( V-Vacant, O-Occupied):V
A New Room's data added Successfully....

    6      202      2   Semi Delux   2000.0
    7      203      2   Semi Delux   2000.0
    8      204      2   Semi Delux   2000.0
    9      205      2   Semi Delux   2000.0
    10     301      3        Delux   3000.0
    11     302      3        Delux   3000.0
    12     303      3        Delux   3000.0
    13     304      3        Delux   3000.0

                                            facility status
    0      Single bed TV small Cooler inverter Chair stool       V
    1      Single bed TV small Cooler inverter Chair stool       V
    2      Single bed TV small Cooler inverter Chair stool       V
    3      Single bed TV small Cooler inverter Chair stool       V
    4      Single bed TV small Cooler inverter Chair stool       V
    5              Double bed TV big AC inverter Sofa Table       V
    6              Double bed TV big AC inverter Sofa Table       V
    7              Double bed TV big AC inverter Sofa Table       V
    8              Double bed TV big AC inverter Sofa Table       V
    9              Double bed TV big AC inverter Sofa Table       V
    10     Double bed TV big AC inverter Sofa Table 24x7 ...     V
    11     Double bed TV big AC inverter Sofa Table 24x7 ...     V
    12     Double bed TV big AC inverter Sofa Table 24x7 ...     V
    13     Double bed TV big AC inverter Sofa Table 24x7 ...     V
```

```
Enter Room No :304
Enter the column name to change: charge
Enter it's value: if string in quotes(''): 3200.0
Room - 304 has been updated successfully...
     roomno  floor   type   charge  \
13     304       3 Delux   3200.0


                                        facility status
13   Double bed TV big AC inverter Sofa Table 24x7 ...      V
Do you want to edit more room's detail?n
     roomno  floor           type   charge  \
0      101       1         Normal    800.0
1      102       1         Normal    800.0
2      103       1         Normal   1000.0
3      104       1         Normal   1000.0
4      105       1         Normal   1000.0
5      201       2     Semi Delux   2000.0
6      202       2     Semi Delux   2000.0
7      203       2     Semi Delux   2000.0
8      204       2     Semi Delux   2000.0
9      205       2     Semi Delux   2000.0
10     301       3          Delux   3000.0
11     302       3          Delux   3000.0
12     303       3          Delux   3000.0
13     304       3          Delux   3200.0
```

```
          HOTEL  MANAGEMENT SYSTEM
         H O T E L   H Y A T T   R E G E N C Y
         ****************************************

         1- ROOMS
         2- CUSTOMERS
         3- CHECK-IN/CHECK-OUT
         4- VISUALIZATION
         5- ANALYTICS/QUERY
         6- E X I T
      Enter your choice [1-6] :2
          C U S T O M E R   M E N U
         ***************************

         1- Add Customers
         2- Delete Customers
         3- Edit detail of the Customer
         4- B A C K
      Enter your choice [1-4] :1
New Customer id :  1113
Enter Customer Name :Ravi Mishra
Enter Age :34
Enter Contact :9976899090
Enter Address :17, Pusa Road, New Delhi
A New Customer added Successfully....
Do you want to add more Customers?n
```

	cust_id	cust_name	Age	Contact	\
0	1101	Aman Mishra	20	9711173176	
1	1102	Kanti Devi	34	9911399410	
2	1103	Shantanu Singh	40	9722273164	
3	1104	Sunita	45	9160770011	
4	1105	Dharmender	32	9911788320	
5	1106	Vaibhav	20	7065789011	
6	1107	Anubhav	30	9818991234	
7	1108	Anmol Gupta	24	9722287890	
8	1109	Kamal Kant	22	9811176187	
9	1110	Girija	45	8023452111	
10	1111	Karuna Gupta	23	9811000222	
11	1112	Ramesh	25	8091908100	
12	1113	Ravi Mishra	34	9976899090	

```
                              Address
0        A-34, Sec-5 R K Puram, ND-22
1       A-234, Sec-3, R K Puram, ND-22
2     HNO-12,FF Elclave, New Delhi-24
3    A-560, Vasant Vihar, New Delhi-23
4           C-11, Vasant Vihar, ND-24
5                   HNO-23,Noida, UP
6                   34-A,Kidwai Ngr
7       62-A/2, Pkt-B, Vasant Kunj
8                23-A, Arjun Nagar
9                56/A, Palam Vihar
10           45-B, Sec-3 R K Puram
          C U S T O M E R    M E N U
         ****************************
         1- Add Customers
         2- Delete Customers
         3- Edit detail of the Custome
         4- B A C K
      Enter your choice [1-4] :3
```

```
Enter Customer id :1113
Enter the column name to change: cust_name
Enter it's value: if string in quotes(''): 'Ravi Aggarwal'
Customer id - 1113 has been updated successfully...
     cust_id      cust_name  Age       Contact                     Address
12      1113  Ravi Aggarwal   34  9976899090   17, Pusa Road, New Delhi
Do you want to edit more Customers?n
     cust_id      cust_name  Age       Contact  \
0       1101    Aman Mishra   20  9711173176
1       1102     Kanti Devi   34  9911399410
2       1103 Shantanu Singh   40  9722273164
3       1104         Sunita   45  9160770011
4       1105     Dharmender   32  9911788320
5       1106        Vaibhav   20  7065789011
6       1107        Anubhav   30  9818991234
7       1108    Anmol Gupta   24  9722287890
8       1109     Kamal Kant   22  9811176187
9       1110         Girija   45  8023452111
10      1111   Karuna Gupta   23  9811000222
11      1112         Ramesh   25  8091908100
12      1113  Ravi Aggarwal   34  9976899090

          C U S T O M E R   M E N U
          ***************************

             1- Add Customers
             2- Delete Customers
             3- Edit detail of the Customer
             4- B A C K
          Enter your choice [1-4] :2
Enter customer id :1113
          cust_name  Age
12   Ravi Aggarwal   34
Do you want to really delete it(Y/N)n
Do you want to delete more customer?n
```

```
            HOTEL   MANAGEMENT SYSTEM
          H O T E L   H Y A T T   R E G E N C Y
          *************************************

          1- ROOMS
          2- CUSTOMERS
          3- CHECK-IN/CHECK-OUT
          4- VISUALIZATION
          5- ANALYTICS/QUERY
          6- E X I T
       Enter your choice [1-6] :3
     roomno   cust_id     dt_book   dt_checkin  dt_checkout  days     bill
0      103     1101      8/2/2022     8/2/2022   15/02/2022   7.0    7000.0
1      104     1102      8/2/2022     8/2/2022   12/02/2022   4.0    4000.0
2      105     1105      8/2/2022     8/2/2022   12/02/2022   4.0    4000.0
3      102     1105      8/2/2022     8/2/2022   20/02/2022  12.0    9600.0
4      101     1106    19/12/2022   19/12/2022   25/12/2022   6.0    4800.0




          B O O K I N G     M E N U
          **************************

          1- Check-in a Room
          2- Check-out and Bills
          3- B A C K
       Enter your choice [1-3] :1
Enter Customer id: 1113
Enter Room No: 301
        cust_name   Age
12   Ravi Aggarwal   34
Do you want to check-in (y/n)?y
Please Enter date of booking/check-in(dd/mm/yyyy): 10/02/2022
Room booked/checked-in Successfully...
Do you want to do more booking?n
     roomno   cust_id     dt_book    dt_checkin  dt_checkout  days     bill
0      103     1101      8/2/2022     8/2/2022   15/02/2022   7.0    7000.0
1      104     1102      8/2/2022     8/2/2022   12/02/2022   4.0    4000.0
2      105     1105      8/2/2022     8/2/2022   12/02/2022   4.0    4000.0
3      102     1105      8/2/2022     8/2/2022   20/02/2022  12.0    9600.0
4      101     1106    19/12/2022   19/12/2022   25/12/2022   6.0    4800.0
5      301     1113    10/02/2022   10/02/2022                NaN    NaN     NaN
```

```
            B O O K I N G    M E N U
            **************************


            1- Check-in a Room
            2- Check-out and Bills
            3- B A C K
         Enter your choice [1-3] :2
Enter Customer id: 1113
Enter Room number doing check-out:301
Please Enter date of check-out(dd/mm/yyyy): 13/02/2022
Total Bill Rs. 9000.0
Check out done Successfully...
Do you want to do more Checkout?n
            B O O K I N G    M E N U
            **************************


            1- Check-in a Room
            2- Check-out and Bills
            3- B A C K
         Enter your choice [1-3] :
```

```
        HOTEL  MANAGEMENT SYSTEM
      H O T E L   H Y A T T   R E G E N C Y
    **************************************

       1- ROOMS
       2- CUSTOMERS
       3- CHECK-IN/CHECK-OUT
       4- VISUALIZATION
       5- ANALYTICS/QUERY
       6- E X I T
  Enter your choice [1-6] :5
       A N A L Y S I S   M E N U
       **************************

       1- All Rooms
       2- All Customers
       3- Search Rooms (Number wise)
       4- Search Rooms (Type wise)
       5- Search Customer (ID wise)
       6- Search Customer (Name wise)
       7- Booked Room (Date wise)
       8- Back to Main Menu
  Enter your choice [1-8] :1
```

	roomno	floor	type	charge	\
0	101	1	Normal	800.0	
1	102	1	Normal	800.0	
2	103	1	Normal	1000.0	
3	104	1	Normal	1000.0	
4	105	1	Normal	1000.0	
5	201	2	Semi Delux	2000.0	
6	202	2	Semi Delux	2000.0	
7	203	2	Semi Delux	2000.0	
8	204	2	Semi Delux	2000.0	
9	205	2	Semi Delux	2000.0	
10	301	3	Delux	3000.0	
11	302	3	Delux	3000.0	
12	303	3	Delux	3000.0	
13	304	3	Delux	3200.0	

	facility	status
0	Single bed TV small Cooler inverter Chair stool	V
1	Single bed TV small Cooler inverter Chair stool	V
2	Single bed TV small Cooler inverter Chair stool	V
3	Single bed TV small Cooler inverter Chair stool	V
4	Single bed TV small Cooler inverter Chair stool	V
5	Double bed TV big AC inverter Sofa Table	V
6	Double bed TV big AC inverter Sofa Table	V
7	Double bed TV big AC inverter Sofa Table	V
8	Double bed TV big AC inverter Sofa Table	V
9	Double bed TV big AC inverter Sofa Table	V
10	Double bed TV big AC inverter Sofa Table 24x7 ...	V
11	Double bed TV big AC inverter Sofa Table 24x7	V

```
        A N A L Y S I S   M E N U
        ***************************

        1- All Rooms
        2- All Customers
        3- Search Rooms (Number wise)
        4- Search Rooms (Type wise)
        5- Search Customer (ID wise)
        6- Search Customer (Name wise)
        7- Booked Room (Date wise)
        8- Back to Main Menu
    Enter your choice [1-8] :2
```

```
     cust_id        cust_name  Age      Contact  \
0      1101       Aman Mishra   20   9711173176
1      1102        Kanti Devi   34   9911399410
2      1103    Shantanu Singh   40   9722273164
3      1104            Sunita   45   9160770011
4      1105         Dharmender  32   9911788320
5      1106           Vaibhav   20   7065789011
6      1107           Anubhav   30   9818991234
7      1108       Anmol Gupta   24   9722287890
8      1109        Kamal Kant   22   9811176187
9      1110            Girija   45   8023452111
10     1111      Karuna Gupta   23   9811000222
11     1112            Ramesh   25   8091908100
12     1113     Ravi Aggarwal   34   9976899090

                            Address
0          A-34, Sec-5 R K Puram, ND-22
1         A-234, Sec-3, R K Puram, ND-22
2       HNO-12,FF Elclave, New Delhi-24
3     A-560, Vasant Vihar, New Delhi-23
4            C-11, Vasant Vihar, ND-24
5                    HNO-23,Noida, UP
6                      34-A,Kidwai Ngr
7          62-A/2, Pkt-B, Vasant Kunj
8                    23-A, Arjun Nagar
9                    56/A, Palam Vihar
10             45-B, Sec-3 R K Puram
11                    23-A, Ashok Vihar
12           17, Pusa Road, New Delhi
```

```
          A N A L Y S I S   M E N U
          ***************************

          1- All Rooms
          2- All Customers
          3- Search Rooms (Number wise)
          4- Search Rooms (Type wise)
          5- Search Customer (ID wise)
          6- Search Customer (Name wise)
          7- Booked Room (Date wise)
          8- Back to Main Menu
        Enter your choice [1-8] :3
Please Enter Room Number: 301
     roomno  floor   type   charge  \
10     301       3  Delux   3000.0


                                      facility status
10  Double bed TV big AC inverter Sofa Table 24x7 ...        V



          A N A L Y S I S   M E N U
          ***************************

          1- All Rooms
          2- All Customers
          3- Search Rooms (Number wise)
          4- Search Rooms (Type wise)
          5- Search Customer (ID wise)
          6- Search Customer (Name wise)
          7- Booked Room (Date wise)
          8- Back to Main Menu
        Enter your choice [1-8] :4
Please Enter Room Type: Delux
     roomno  floor   type   charge  \
10     301       3  Delux   3000.0
11     302       3  Delux   3000.0
12     303       3  Delux   3000.0
13     304       3  Delux   3200.0


                                      facility status
10  Double bed TV big AC inverter Sofa Table 24x7 ...        V
11  Double bed TV big AC inverter Sofa Table 24x7 ...        V
12  Double bed TV big AC inverter Sofa Table 24x7 ...        V
13  Double bed TV big AC inverter Sofa Table 24x7 ...        V
```

```
            A N A L Y S I S   M E N U
            ***************************

            1- All Rooms
            2- All Customers
            3- Search Rooms (Number wise)
            4- Search Rooms (Type wise)
            5- Search Customer (ID wise)
            6- Search Customer (Name wise)
            7- Booked Room (Date wise)
            8- Back to Main Menu
        Enter your choice [1-8] :5
Please Enter Customer ID: 1113
    cust_id      cust_name  Age     Contact              Address
12      1113   Ravi Aggarwal   34   9976899090   17, Pusa Road, New Delhi
```

```
        A N A L Y S I S   M E N U
        ***************************

        1- All Rooms
        2- All Customers
        3- Search Rooms (Number wise)
        4- Search Rooms (Type wise)
        5- Search Customer (ID wise)
        6- Search Customer (Name wise)
        7- Booked Room (Date wise)
        8- Back to Main Menu
    Enter your choice [1-8] :6
Please Enter Customer Namee: Ravi
1113 --> Ravi Aggarwal --> 17, Pusa Road, New Delhi
```

```
        A N A L Y S I S   M E N U
        ***************************

        1- All Rooms
        2- All Customers
        3- Search Rooms (Number wise)
        4- Search Rooms (Type wise)
        5- Search Customer (ID wise)
        6- Search Customer (Name wise)
        7- Booked Room (Date wise)
        8- Back to Main Menu
     Enter your choice [1-8] :7
Please Enter Date of Booking: 8/2/2022
   roomno  cust_id  dt_book dt_checkin dt_checkout  days    bill
0    103     1101  8/2/2022   8/2/2022  15/02/2022   7.0   7000.0
1    104     1102  8/2/2022   8/2/2022  12/02/2022   4.0   4000.0
2    105     1105  8/2/2022   8/2/2022  12/02/2022   4.0   4000.0
3    102     1105  8/2/2022   8/2/2022  20/02/2022  12.0   9600.0


HMS Version 1.00            By: Computer Concepts: A K Pandey
        HOTEL   MANAGEMENT  SYSTEM
        H O T E L   H Y A T T   R E G E N C Y
        *************************************

        1- ROOMS
        2- CUSTOMERS
        3- CHECK-IN/CHECK-OUT
        4- VISUALIZATION
        5- ANALYTICS/QUERY
        6- E X I T
     Enter your choice [1-6] :4
        V I S U A L I Z A T I O N   M E N U
        *************************************

        1- Room's charges
        2- Customer's Age (Specific Group)
        3- Customers Stay & Billing in the Hotel
        4- Back to Main Menu
     Enter your choice [1-4] :1
Graph Type [Line-L,Bar-B]:L
```

CONCLUSION:

This project was completed on time and is found working effectively under all circumstances that may arise in real environment. The program objective specifies on the requirement is believed to be met. Using the facilities and functionalities of python pandas and CSV , the program has been developed in neat manner.

This program is simple and user friendly. The speed and accuracy are maintained in proper way. Testing of the program has given good result.

The program is done with an insight into necessary modifications that is required in the future.

BIBLIOGRAPHY:

I have successfully completed my project with the help of our teachers . The different sources we have used are:-

1 www.w3resource.com

2 www.tutoralspoint.com

3 www.geeksforgreeks.com

4 www.python.com