

```
import random
```

```
import datetime
```

```
# Global List Declaration
```

```
name = []
```

```
phno = []
```

```
add = []
```

```
checkin = []
```

```
checkout = []
```

```
room = []
```

```
price = []
```

```
rc = []
```

```
p = []
```

```
roomno = []
```

```
custid = []
```

```
day = []
```

```
# Global Variable Declaration
```

```
i = 0
```

```
# Home Function
```

```
def Home():
```

```
    print("\t\t\t\t\t WELCOME TO HOTEL ANCASA\n")
```

```
    print("\t\t\t 1 Booking\n")
```

```
    print("\t\t\t 2 Rooms Info\n")
```

```
    print("\t\t\t 3 Room Service(Menu Card)\n")
```

```
    print("\t\t\t 4 Payment\n")
```

```
print("\t\t\t 5 Record\n")
```

```
print("\t\t\t 0 Exit\n")
```

```
ch=int(input("->"))
```

```
if ch == 1:
```

```
    print(" ")
```

```
    Booking()
```

```
elif ch == 2:
```

```
    print(" ")
```

```
    Rooms_Info()
```

```
elif ch == 3:
```

```
    print(" ")
```

```
    restaurant()
```

```
elif ch == 4:
```

```
    print(" ")
```

```
    Payment()
```

```
elif ch == 5:
```

```
    print(" ")
```

```
    Record()
```

```
else:
```

```
    exit()
```

```
# Function used in booking
```

```
def date(c):
```

```
    if c[2] >= 2019 and c[2] <= 2020:
```

```
        if c[1] != 0 and c[1] <= 12:
```

```
            if c[1] == 2 and c[0] != 0 and c[0] <= 31:
```

```
                if c[2]%4 == 0 and c[0] <= 29:
```

```
                    pass
```

```
                elif c[0]<29:
```

```
                    pass
```

```
            else:
```

```
                print("Invalid date\n")
```

```
                name.pop(i)
```

```
                phno.pop(i)
```

```
                add.pop(i)
```

```
                checkin.pop(i)
```

```
                checkout.pop(i)
```

```
                Booking()
```

```
        # if month is odd & less than equal
```

```
        # to 7th month
```

```
        elif c[1] <= 7 and c[1]%2 != 0 and c[0] <= 31:
```

```
            pass
```

```
# if month is even & less than equal to 7th
# month and not 2nd month
elif c[1] <= 7 and c[1]%2 == 0 and c[0] <= 30 and c[1] != 2:
    pass
```

```
# if month is even & greater than equal
# to 8th month
elif c[1] >= 8 and c[1]%2 == 0 and c[0] <= 31:
    pass
```

```
# if month is odd & greater than equal
# to 8th month
elif c[1]>=8 and c[1]%2!=0 and c[0]<=30:
    pass
```

```
else:
    print("Invalid date\n")
    name.pop(i)
    phno.pop(i)
    add.pop(i)
    checkin.pop(i)
    checkout.pop(i)
    Booking()
```

```
else:
    print("Invalid date\n")
    name.pop(i)
    phno.pop(i)
```

```
        add.pop(i)
        checkin.pop(i)
        checkout.pop(i)
        Booking()

    else:
        print("Invalid date\n")
        name.pop(i)
        phno.pop(i)
        add.pop(i)
        checkin.pop(i)
        checkout.pop(i)
        Booking()
```

# Booking function

def Booking():

```
    # used global keyword to
    # use global variable 'i'
    global i
    print(" BOOKING ROOMS")
    print(" ")

    while 1:
        n = str(input("Name: "))
        p1 = str(input("Phone No.: "))
        a = str(input("Address: "))
```

```
# checks if any field is not empty

if n!="" and p1!="" and a!="":
    name.append(n)
    add.append(a)
    break

else:
    print("\tName, Phone no. & Address cannot be empty..!!")
```

```
cii=str(input("Check-In: "))
checkin.append(cii)
cii=cii.split('/')
ci=cii
ci[0]=int(ci[0])
ci[1]=int(ci[1])
ci[2]=int(ci[2])
date(ci)
```

```
coo=str(input("Check-Out: "))
checkout.append(coo)
coo=coo.split('/')
co=coo
co[0]=int(co[0])
co[1]=int(co[1])
co[2]=int(co[2])
```

```
# checks if check-out date falls after
# check-in date
if co[1]<ci[1] and co[2]<ci[2]:
```

```
        print("\n\tErr...!!\n\tCheck-Out date must fall after Check-In\n")
        name.pop(i)
        add.pop(i)
        checkin.pop(i)
        checkout.pop(i)
        Booking()
    elif co[1]==ci[1] and co[2]>=ci[2] and co[0]<=ci[0]:
```

```
        print("\n\tErr...!!\n\tCheck-Out date must fall after Check-In\n")
        name.pop(i)
        add.pop(i)
        checkin.pop(i)
        checkout.pop(i)
        Booking()
    else:
        pass
```

```
    date(co)
    d1 = datetime.datetime(ci[2],ci[1],ci[0])
    d2 = datetime.datetime(co[2],co[1],co[0])
    d = (d2-d1).days
    day.append(d)
```

```
print("----SELECT ROOM TYPE----")
print(" 1. Standard Non-AC")
print(" 2. Standard AC")
print(" 3. 3-Bed Non-AC")
print(" 4. 3-Bed AC")
```

```
print("\t\tPress 0 for Room Prices"))

ch=int(input("->"))

# if-conditions to display allotted room
# type and it's price
if ch==0:

    print(" 1. Standard Non-AC - Rs. 3500")
    print(" 2. Standard AC - Rs. 4000")
    print(" 3. 3-Bed Non-AC - Rs. 4500")
    print(" 4. 3-Bed AC - Rs. 5000")
    ch=int(input("->"))

if ch==1:

    room.append('Standard Non-AC')
    print("Room Type- Standard Non-AC")
    price.append(3500)
    print("Price- 3500")

elif ch==2:

    room.append('Standard AC')
    print("Room Type- Standard AC")
    price.append(4000)
    print("Price- 4000")

elif ch==3:

    room.append('3-Bed Non-AC')
    print("Room Type- 3-Bed Non-AC")
    price.append(4500)
    print("Price- 4500")

elif ch==4:

    room.append('3-Bed AC')
```



```
        print("Room Type- 3-Bed AC")
        price.append(5000)
        print("Price- 5000")
    else:
        print(" Wrong choice..!!")
```

```
# randomly generating room no. and customer
# id for customer
rn = random.randrange(40)+300
cid = random.randrange(40)+10
```

```
# checks if allotted room no. & customer
# id already not allotted
while rn in roomno or cid in custid:
    rn = random.randrange(60)+300
    cid = random.randrange(60)+10
```

```
rc.append(0)
p.append(0)
```

```
if p1 not in phno:
    phno.append(p1)
elif p1 in phno:
    for n in range(0,i):
        if p1== phno[n]:
            if p[n]==1:
                phno.append(p1)
```

```

elif p1 in phno:
    for n in range(0,i):
        if p1== phno[n]:
            if p[n]==0:
                print("\tPhone no. already exists and payment yet not
done..!!")

                name.pop(i)
                add.pop(i)
                checkin.pop(i)
                checkout.pop(i)
                Booking()

print("")
print("\t\t\t***ROOM BOOKED SUCCESSFULLY***\n")
print("Room No. - ",rn)
print("Customer Id - ",cid)
roomno.append(rn)
custid.append(cid)
i=i+1
n=int(input("0-BACK\n->"))
if n==0:
    Home()
else:
    exit()

# ROOMS INFO
def Rooms_Info():
    print("        ----- HOTEL ROOMS INFO -----")
    print("")
    print("STANDARD NON-AC")

```

```

print("-----")
print("Room amenities include: 1 Double Bed, Television, Telephone,")
print("Double-Door Cupboard, 1 Coffee table with 2 sofa, Balcony and")
print("an attached washroom with hot/cold water.\n")
print("STANDARD NON-AC")
print("-----")
print("Room amenities include: 1 Double Bed, Television, Telephone,")
print("Double-Door Cupboard, 1 Coffee table with 2 sofa, Balcony and")
print("an attached washroom with hot/cold water + Window/Split AC.\n")
print("3-Bed NON-AC")
print("-----")
print("Room amenities include: 1 Double Bed + 1 Single Bed, Television,")
print("Telephone, a Triple-Door Cupboard, 1 Coffee table with 2 sofa, 1")
print("Side table, Balcony with an Accent table with 2 Chair and an")
print("attached washroom with hot/cold water.\n")
print("3-Bed AC")
print("-----")
print("Room amenities include: 1 Double Bed + 1 Single Bed, Television,")
print("Telephone, a Triple-Door Cupboard, 1 Coffee table with 2 sofa, ")
print("1 Side table, Balcony with an Accent table with 2 Chair and an")
print("attached washroom with hot/cold water + Window/Split AC.\n\n")
print()
n=int(input("0-BACK\n->"))
if n==0:
    Home()
else:
    exit()

```

# RESTAURANT FUNCTION



```

print("----- 34 Jeera Rice..... 90.00")
print(" 11 Tomato Soup..... 110.00   35 Veg Pulao..... 110.00")
print(" 12 Hot & Sour..... 110.00   36 Peas Pulao..... 110.00")
print(" 13 Veg. Noodle Soup..... 110.00")
print(" 14 Sweet Corn..... 110.00   SOUTH INDIAN")
print(" 15 Veg. Munchow..... 110.00 -----")
print("
Plain Dosa..... 100.00")
Dosa..... 110.00")
print(" MAIN COURSE
Dosa..... 110.00")
print("----- 39 Masala Dosa..... 130.00")
print(" 16 Shahi Paneer..... 110.00   40 Paneer Dosa..... 130.00")
print(" 17 Kadai Paneer..... 110.00   41 Rice Idli..... 130.00")
print(" 18 Handi Paneer..... 120.00   42 Sambhar Vada..... 140.00")
print(" 19 Palak Paneer..... 120.00")
print(" 20 Chilli Paneer..... 140.00   ICE CREAM")
print(" 21 Matar Mushroom..... 140.00 -----")
print(" 22 Mix Veg..... 140.00   43 Vanilla..... 60.00")
print(" 23 Jeera Aloo..... 140.00   44 Strawberry..... 60.00")
print(" 24 Malai Kofta..... 140.00   45 Pineapple..... 60.00")
print(" 25 Aloo Matar..... 140.00   46 Butter Scotch..... 60.00")
print("Press 0 -to end ")
ch=1
while(ch!=0):

    ch=int(input(" -> "))

    # if-elif-conditions to assign item

    # prices listed in menu card

```

if ch==1 or ch==31 or ch==32:

rs=20

r=r+rs

elif ch<=4 and ch>=2:

rs=25

r=r+rs

elif ch<=6 and ch>=5:

rs=30

r=r+rs

elif ch<=8 and ch>=7:

rs=50

r=r+rs

elif ch<=10 and ch>=9:

rs=70

r=r+rs

elif (ch<=17 and ch>=11) or ch==35 or ch==36 or ch==38:

rs=110

r=r+rs

elif ch<=19 and ch>=18:

rs=120

r=r+rs

elif (ch<=26 and ch>=20) or ch==42:

rs=140

r=r+rs

elif ch<=28 and ch>=27:

rs=150

r=r+rs

elif ch<=30 and ch>=29:

rs=15

```

        r=r+rs
    elif ch==33 or ch==34:
        rs=90
        r=r+rs
    elif ch==37:
        rs=100
        r=r+rs
    elif ch<=41 and ch>=39:
        rs=130
        r=r+rs
    elif ch<=46 and ch>=43:
        rs=60
        r=r+rs
    elif ch==0:
        pass
    else:
        print("Wrong Choice..!!")

print("Total Bill: ",r)


# updates restaurant charges and then
# appends in 'rc' list
r=r+rc.pop(n)
rc.append(r)

else:
    pass

if f == 0:
    print("Invalid Customer Id")
n=int(input("0-BACK\n->"))
if n==0:

```

```
        Home()
    else:
        exit()
```

```
# PAYMENT FUNCTION
```

```
def Payment():
```

```
    ph=str(input("Phone Number: "))
```

```
    global i
```

```
    f=0
```

```
    for n in range(0,i):
```

```
        if ph==phno[n] :
```

```
            # checks if payment is
```

```
            # not already done
```

```
            if p[n]==0:
```

```
                f=1
```

```
                print(" Payment")
```

```
                print(" -----")
```

```
                print(" MODE OF PAYMENT")
```

```
                print(" 1- Credit/Debit Card")
```

```
                print(" 2- Paytm/PhonePe")
```

```
                print(" 3- Using UPI")
```

```
                print(" 4- Cash")
```

```
                x=int(input("-> "))
```

```
                print("\n Amount: ",(price[n]*day[n])+rc[n])
```



```

print("\n          Pay For AnCasa")
print(" (y/n)")
ch=str(input("->"))

if ch=='y' or ch=='Y':
    print("\n\n -----")
    print("          Hotel AnCasa")
    print(" -----")
    print("          Bill")
    print(" -----")
    print(" Name: ",name[n]," \t \n Phone No.: ",phno[n]," \t \n
Address: ",add[n]," \t")

    print("\n Check-In: ",checkin[n]," \t \n Check-Out:
",checkout[n]," \t")

    print("\n Room Type: ",room[n]," \t \n Room Charges:
",price[n]*day[n]," \t")

    print(" Restaurant Charges: \t",rc[n])
    print(" -----")
    print("\n Total Amount: ",(price[n]*day[n])+rc[n]," \t")
    print(" -----")
    print("          Thank You")
    print("          Visit Again :)")
    print(" ----- \n")
    p.pop(n)
    p.insert(n,1)

# pops room no. and customer id from list and
# later assigns zero at same position
roomno.pop(n)
custid.pop(n)

```

```

        roomno.insert(n,0)
        custid.insert(n,0)

    else:

        for j in range(n+1,i):
            if ph==phno[j] :
                if p[j]==0:
                    pass

                else:
                    f=1
                    print("\n\tPayment has been Made :)\n\n")

if f==0:
    print("Invalid Customer Id")

n = int(input("0-BACK\n->"))
if n == 0:
    Home()
else:
    exit()

# RECORD FUNCTION
def Record():

    # checks if any record exists or not
    if phno!=[]:
        print(" *** HOTEL RECORD ***\n")

```

```

        print("| Name | Phone No. | Address | Check-In | Check-Out | Room Type | Price
|")

        print("-----")

        for n in range(0,i):

            print("|",name[n],"\\t
|",phno[n],"\\t|",add[n],"\\t|",checkin[n],"\\t|",checkout[n],"\\t|",room[n],"\\t|",price[n])

        print("-----")

    else:

        print("No Records Found")

        n = int(input("0-BACK\\n ->"))

        if n == 0:

            Home()

        else:

            exit()

# Driver Code

Home()

```