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COMPUTER SCIENCE

PROJECT FILE

HOTEL Management

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SHARJAH INDIAN SCHOOL

(AFFILIATED TO CENTRAL BOARD OF SECONDARY EDUCATION, NEW DELHI)

Certificate

AISSCE Roll No : ______________

Certified that the work entered in this journal on the Project Hotel Management is the bona fide work of

Master ALBIN BINU MATHEW

of Grade XII Section C submitted for the

All India Senior School Certificate Examination conducted by

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Teacher in Charge

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Contents

Acknowledgement

Firstly, I would like to thank my teacher Mrs.Jihan Shareen for giving me the opportunity to do this project on the topic Hotel Management which helped me grasp a lot of new concepts and ideas .

Secondly, I would like to thank my classmate and partner Likhit for teaming up with me for this interesting project.
We both gained knowledge from this group effort.

Special thanks also go to my classmates and parents who helped me a lot in finishing this project within the limited time frame.

Albin Binu Mathew

About Python

Python is an interpreted, high-level programming language created in the late 1980s and first released in 1991, by Guido Van Rossum. It is one of the most accessible programming languages available because it has a simplified syntax and is easy to learn.

Python is developed under an OSI-approved open source licence making it freely usable and distributable. Other features of python include being an integrated, portable and case-sensitive language.

It's also an interpreted language which means that Python directly executes the code line by line. In case of any error, execution of code is stopped and the error is reported.

About the Project

Hotel Management

This project titled 'HOTEL MANAGEMENT' is a software to help monitor and control the overall management of a hotel.

The project is developed in Python and focuses on the basic operations in a hotel, like booking and cancelling a room and an employee access to modify and display the records.

The project also helps in monitoring the transactions in a hotel.

i. Modules

Modules are used to categorize Python code into smaller parts. A module is simply a Python file where statements, classes, objects, functions, constants and variables are defined. The Modules used in this Project are :

1. Time – Used to delay the execution of the code (time.sleep()).
2. Mysql.connector – For establishing connectivity with SQL.

ii. Functions

A function is a group of statements that exists within a program for the purpose of performing a specific task. They constitute line of code(s) that are executed sequentially from top to bottom by the Python interpreter.

Functions used in this project are:

1. **def main():** To display the Main menu.
2. **def b_room( )*:*** To book a room.
3. **def foodpurchased( )**: To calculate the food purchased.
4. **def cancel()**: To cancel a booking.
5. **def displaypr()**: To display room prices.
6. **def foodprices()**: To display food prices.

7. **def crecords()**: To display customer records.

8. **def dcheck()**: To check if the user is the owner of the room.

9. **def grand()**: To calculate the grand total.

10. **def employee()**: For employee access.

iii. SQL Tables

SQL Tables enable permanent storage of the records needed in the Project.

Binary Files is used in the Project because (write advantages of Binary File)

SQL Tables used in this project are :

1. **Crecords**: Used to store all the details of customers.
2. **Employee**: Used to store employee names.
3. **F1_rooms**: Used to store the rooms available in 1st floor.
4. **F2_rooms**: Used to store the rooms available in 2nd floor.
5. **F3_rooms**: Used to store the rooms available in 3rd floor.
6. **Food**: Used to store food prices.
7. **R_prices**: Used to store room prices.

User Manual

This user manual will help the user in executing this software.

- Hardware Requirements:
  - X86 64-bit CPU (Intel / AMD Architecture)
  - 4 GB RAM
  - 5 GB free disk space
- Software Requirements
  - Modern Operating System
    - Windows 7 above
    - Mac OS X 10.11 or higher, 64 bit
    - Linux : RHEL 6/7, 64 bit
  - Python 3.8 or above
- As the program is very simple the user just needs fundamental knowledge on computers.
- The installation of the program is very simple. Just insert the CD and execute the .py file using Python.

Source Code

```python
total = 0
import time
import mysql.connector as ms
mydb = ms.connect(host='localhost',user='root',passwd='12345',database='hotel_management')
mc = mydb.cursor()

#Booking a room
def b_room():
    ch = 'y'
    displaypr()
    print('='*40)
    while ch in 'Yy':
        print('='*40)
        n = input('ENTER CUSTOMER NAME: ')
        a = int(input('ENTER NUMBER OF ADULTS(ABOVE 12): '))
        k = int(input('ENTER NUMBER OF CHILDREN: '))
        nm = a + k
        if nm > 0 and nm <= 2:
            ci = input("ENTER CHECK-IN DATE(YYYY/MM/DD): ")
            co = input("ENTER CHECK-OUT DATE(YYYY/MM/DD): ")
            print()
            print("FOR",nm,",YOU HAVE BEEN ALLOTED FIRST FLOOR ROOMS, KINDLY CHOOSE ONE OF THE BELOW...")
            time.sleep(1)
            mc.execute('select * from f1_rooms')
            data = mc.fetchall()
            print('-'*40)
            print('============1ST FLOOR ROOMS===========')
            print('-'*40)
            if mc.rowcount>0:
                print('SNO','%15s'%'ROOM_NO','%15s'%'STATUS')
                print('-'*40)
            for i in data:
                print(i[0],'%15s'%i[1],'%20s'%i[2])
                print('-'*40)
            rno = int(input('ENTER AN AVAILABLE ROOM NUMBER: '))
            l = []
            mc.execute('select room_no from f1_rooms')
            data = mc.fetchall()
            for i in data:
                l.append(i[0])
            if rno in l:
                mc.execute('Select * from f1_rooms where room_no={}'.format(rno))
                data = mc.fetchall()
                status = 'BOOKED'
                for i in data:
                    if i[2] == 'AVAILABLE':
                        mc.execute('update f1_rooms set STATUS="{}" where ROOM_NO={}'.format(status,rno))
                        mydb.commit()
                        mc.execute('select * from f1_rooms where room_no={}'.format(rno))
                        data=mc.fetchall()
                        print('-'*40)
                        print('============1ST FLOOR ROOMS============')
```

```
                              print('-'*40)
                              if mc.rowcount>0:
                                   print('SNO','%14s'%'ROOM_NO','%17s'%'STATUS')
                                   print('-'*40)
                              for i in data:
                                   print(i[0],'%15s'%i[1],'%20s'%i[2])
                                   print('-'*40)
                                   print('')
                                   print('***ROOM IS SUCCESSFULLY BOOKED',n.upper(),
'***')

                              mc.execute("insert into crecords values({},'{}','{}','{}')
".format(rno,n.upper(),ci,co))
                              mydb.commit()
                              time.sleep(1)
                              mc.execute('select * from crecords where room_no={}'
.format(rno))
                              data = mc.fetchall()
                              if mc.rowcount>0:
                                   print('-'*50)
                                   print('ROOM NO','%12s'%'C_NAME','%13s'%'CHECK_IN',
'%14s'%'CHECK_OUT')
                                   print('-'*50)
                              for i in data:
                                   print(i[0],'%16s'%i[1],'%13s'%i[2],'%14s'%i[3])
                                   print('-'*50)
                              print('GOING BACK TO MAIN MENU....')
                              time.sleep(3)
                              main()
                         elif i[2] == 'BOOKED':
                              print("-"*40)
                              print('**ROOM IS NOT AVAILABLE, CHOOSE AN AVAILABLE
ONE**')
                              ch = input('TRY AGAIN?(Y/N) ')
               else:
                    print("-"*40)
                    print("**ROOM NUMBER DOESN'T EXIST**")
                    ch = input('TRY AGAIN?(Y/N) ')

          elif nm <= 4 and nm > 2:
               ci = input("ENTER CHECK-IN DATE(YYYY/MM/DD): ")
               co = input("ENTER CHECK-OUT DATE(YYYY/MM/DD): ")
               print()
               print("FOR",nm,",YOU HAVE BEEN ALLOTED SECOND FLOOR ROOMS, KINDLY CHOOSE
ONE OF THE BELOW...")
               time.sleep(1)
               mc.execute('select * from f2_rooms')
               data=mc.fetchall()
               print('-'*40)
                   print('=============2ND FLOOR ROOMS=============')
                   print('-'*40)
                   if mc.rowcount>0:
                        print('SNO','%15s'%'ROOM_NO','%15s'%'STATUS')
                        print('-'*40)
                   for i in data:
                        print(i[0],'%15s'%i[1],'%20s'%i[2])
                        print('-'*40)
                   rno = int(input('ENTER AN AVAILABLE ROOM NUMBER: '))
                   l = []
                   mc.execute('select room_no from f2_rooms')
                   data = mc.fetchall()
                   for i in data:
                        l.append(i[0])
                   if rno in l:
```

```
                mc.execute('Select * from f2_rooms where room_no={}'.format(rno))
                data = mc.fetchall()
                status = 'BOOKED'
                for i in data:
                    if i[2] == 'AVAILABLE':
                        mc.execute('update f2_rooms set STATUS="{}" where ROOM_NO={}'.format(status,rno))
                        mydb.commit()
                        mc.execute('select * from f2_rooms where room_no={}'.format(rno))
                        data = mc.fetchall()
                        print('-'*40)
                        if mc.rowcount>0:
                            print('SNO','%14s'%'ROOM_NO','%17s'%'STATUS')
                            print('-'*40)
                        for i in data:
                            print(i[0],'%15s'%i[1],'%20s'%i[2])
                            print('-'*40)
                            print('')
                            print('***ROOM IS SUCCESSFULLY BOOKED',n.upper(),'***')

                        mc.execute("insert into crecords values({},'{}','{}','{}')".format(rno,n.upper(),ci,co))
                        mydb.commit()
                        time.sleep(1)
                        mc.execute('select * from crecords where room_no={}'.format(rno))
                        data = mc.fetchall()
                        if mc.rowcount>0:
                            print('-'*50)
                            print('ROOM NO','%12s'%'C_NAME','%13s'%'CHECK_IN','%14s'%'CHECK_OUT')
                            print('-'*50)
                        for i in data:
                            print(i[0],'%16s'%i[1],'%13s'%i[2],'%14s'%i[3])
                            print('-'*50)
                        print('GOING BACK TO MAIN MENU....')
                        time.sleep(3)
                        main()
                    elif i[2] == 'BOOKED':
                        print("-"*40)
                        print('**ROOM IS NOT AVAILABLE, CHOOSE AN AVAILABLE ONE**')
                        ch = input('TRY AGAIN?(Y/N) ')
            else:
                print("-"*40)
                print("**ROOM NUMBER DOESN'T EXIST**")
                ch = input('TRY AGAIN?(Y/N) ')

        elif nm <= 8 and nm > 4:
            ci = input("ENTER CHECK-IN DATE(YYYY/MM/DD): ")
            co = input("ENTER CHECK-OUT DATE(YYYY/MM/DD): ")
            print()
            print("FOR",nm,",YOU HAVE BEEN ALLOTED THIRD FLOOR ROOMS, KINDLY CHOOSE ONE OF THE BELOW...")
            time.sleep(1)
            mc.execute('select * from f3_rooms')
            data = mc.fetchall()
            print('-'*40)
            print('============3RD FLOOR ROOMS============')
            print('-'*40)
            if mc.rowcount>0:
                print('SNO','%15s'%'ROOM_NO','%15s'%'STATUS')
                print('-'*40)
            for i in data:
                print(i[0],'%15s'%i[1],'%20s'%i[2])
                print('-'*40)
            rno = int(input('ENTER AN AVAILABLE ROOM NUMBER: '))
            l = []
            mc.execute('select room_no from f3_rooms')
            data = mc.fetchall()
            for i in data:
                l.append(i[0])
            if rno in l:
                mc.execute('Select * from f3_rooms where room_no={}'.format(rno))
                data = mc.fetchall()
                status = 'BOOKED'
                for i in data:
                    if i[2] == 'AVAILABLE':
                        mc.execute('update f3_rooms set STATUS="{}" where ROOM_NO={}'.format(status,rno))
                        mydb.commit()
                        mc.execute('select * from f3_rooms where room_no={}'.format(rno))
                        data = mc.fetchall()
                        print('-'*40)
                        if mc.rowcount>0:
                            print('SNO','%14s'%'ROOM_NO','%17s'%'STATUS')
                            print('-'*40)
                        for i in data:
                            print(i[0],'%15s'%i[1],'%20s'%i[2])
                            print('-'*40)
                            print('')
                            print('***ROOM IS SUCCESSFULLY BOOKED',n.upper(),'***')

                        mc.execute("insert into crecords values({},'{}','{}','{}')".format(rno,n.upper(),ci,co))
                        mydb.commit()
                        time.sleep(1)
                        mc.execute('select * from crecords where room_no={}'.format(rno))
                        data=mc.fetchall()
                        if mc.rowcount>0:
                            print('-'*50)
                            print('ROOM NO','%12s'%'C_NAME','%13s'%'CHECK_IN','%14s'%'CHECK_OUT')
                            print('-'*50)
                        for i in data:
                            print(i[0],'%16s'%i[1],'%13s'%i[2],'%14s'%i[3])
                            print('-'*50)
                        print('GOING BACK TO MAIN MENU....')
                        time.sleep(3)
                        main()

                    elif i[2] == 'BOOKED':
                        print('-'*40)
                        print('**ROOM IS NOT AVAILABLE, CHOOSE AN AVAILABLE ONE**')
                        ch = input('TRY AGAIN?(Y/N) ')
            else:
                print('-'*40)
                print("**ROOM NUMBER DOESN'T EXIST**")
                ch = input('TRY AGAIN?(Y/N) ')
        else:
               print('-'*40)
               print('**MAXIMUM CAPACITY FOR A ROOM IS 8**')
               ch = input('TRY AGAIN?(Y/N) ')

     print('GOING BACK TO MAIN MENU....')
     time.sleep(3)
     main()

#Calculating food prices
def foodpurchased():
     global total
     foodprices()
     print('='*40)
     print('6','%17s'%'TOTAL BILL')
     print('-'*40)
     de,be,bf,lu,di = 0,0,0,0,0
     c = 'y'
     while c in 'Yy':
         print('='*40)
         ch = int(input("ENTER THE NUMBER OF YOUR CHOICE: "))
         if ch == 1:
             mc.execute('select * from food where sno={}'.format(ch))
             data = mc.fetchall()
             for i in data:
                  p = int(input("ENTER NUMBER OF DESSERTS: "))
                  de = p * i[2]
                  print("YOUR TOTAL DESSERT COST IS:", de)

         elif ch == 2:
             mc.execute('select * from food where sno={}'.format(ch))
             data=mc.fetchall()
             for i in data:
                  p = int(input("ENTER NUMBER OF BEVERAGES: "))
                  be= p * i[2]
                  print("YOUR TOTAL BEVERAGE COST IS:", be)

         elif ch == 3:
             mc.execute('select * from food where sno={}'.format(ch))
             data = mc.fetchall()
             for i in data:
                  p = int(input("ENTER NUMBER OF BREAKFAST MEALS: "))
                  bf = p * i[2]
                  print("YOUR TOTAL BREAKFAST COST IS:", bf)

         elif ch == 4:
             mc.execute('select * from food where sno={}'.format(ch))
             data = mc.fetchall()
             for i in data:
                  p = int(input("ENTER NUMBER OF LUNCH MEALS: "))
                  lu = p * i[2]
                  print("YOUR TOTAL LUNCH COST IS:", lu)

         elif ch == 5:
             mc.execute('select * from food where sno={}'.format(ch))
             data = mc.fetchall()
             for i in data:
                  p = int(input("ENTER NUMBER OF DINNER MEALS: "))
                  di = p * i[2]
                  print("YOUR TOTAL DINNER COST IS:", di)

         elif ch == 6:
              total = de + be + bf + lu + di
              print('YOUR TOTAL FOOD COST IS',total)
              print('GOING BACK TO MAIN MENU....')
              time.sleep(3)
              main()

         else:
              print('-'*40)
              print('**INVALID CHOICE**')
              c = input('TRY AGAIN?(Y/N) ')

     print('GOING BACK TO MAIN MENU....')
     time.sleep(3)
     main()

#cancelling a room
def cancel():
     ch = 'y'
     while ch in 'Yy':
          print('='*40)
          fno = int(input('ENTER YOUR FLOOR NUMBER(1/2/3): '))
          if fno == 1:
               rno = int(input('ENTER ROOM NUMBER TO BE CANCELLED: '))
               l1 = []
               mc.execute('select room_no from f1_rooms')
               data = mc.fetchall()
               for i in data:
                    l1.append(i[0])
               if rno in l1:
                    mc.execute('select * from f1_rooms where room_no={}'.format(rno))
                    data = mc.fetchall()
                    status = 'AVAILABLE'
                    for i in data:
                         if i[2] == 'BOOKED':
                              mc.execute("update f1_rooms set status='{}' where room_no={}".format(status,rno))
                              mydb.commit()
                              mc.execute('select * from f1_rooms where room_no={}'.format(rno))
                              data = mc.fetchall()
                              print('-'*40)
                              print('============1ST FLOOR ROOMS============')
                              print('-'*40)
                              if mc.rowcount>0:
                                        print('SNO','%14s'%'ROOM_NO','%17s'%'STATUS')
                                        print('-'*40)
                              for i in data:
                                        print(i[0],'%15s'%i[1],'%20s'%i[2])
                                        print('-'*40)
                              mc.execute('delete from crecords where room_no={}'.format(rno))
                              mydb.commit()
                              print('**ROOM HAS BEEN CANCELLED**')
                              print('GOING BACK TO MAIN MENU....')
                              time.sleep(3)
                              main()

                         elif i[2] == 'AVAILABLE':
                                   print('-'*40)
                                   print('**ROOM HAS NEVER BEEN BOOKED**')
                                   ch = input('TRY AGAIN(Y/N)? ')
               else:
                    print('-'*40)
                    print("**ROOM NO DOESN'T EXIST**")
                    ch=input('TRY AGAIN?(Y/N) ')
```

```

            elif fno == 2:
                rno = int(input('ENTER ROOM NUMBER TO BE CANCELLED: '))
                l1 = []
                mc.execute('select room_no from f2_rooms')
                data = mc.fetchall()
                for i in data:
                    l1.append(i[0])
                if rno in l1:
                    mc.execute('select * from f2_rooms where room_no={}'.format(rno))
                    data = mc.fetchall()
                    status = 'AVAILABLE'
                    for i in data:
                        if i[2] == 'BOOKED':
                            mc.execute("update f2_rooms set status='{}' where room_no={}".format(status,rno))
                            mydb.commit()
                            mc.execute('select * from f2_rooms where room_no={}'.format(rno))
                            data = mc.fetchall()
                            print('-'*40)
                            print('=============2ND FLOOR ROOMS=============')
                            print('-'*40)
                            if mc.rowcount>0:
                                print('SNO','%14s'%'ROOM_NO','%17s'%'STATUS')
                                print('-'*40)
                            for i in data:
                                print(i[0],'%15s'%i[1],'%20s'%i[2])
                                print('-'*40)
                            mc.execute('delete from crecords where room_no={}'.format(rno))
                            mydb.commit()
                            print('**ROOM HAS BEEN CANCELLED**')
                            print('GOING BACK TO MAIN MENU....')
                            time.sleep(3)
                            main()

                        elif i[2] == 'AVAILABLE':
                            print('-'*40)
                            print('**ROOM HAS NEVER BEEN BOOKED**')
                            ch=input('TRY AGAIN?(Y/N) ')
                else:
                    print('-'*40)
                    print("**ROOM NO DOESN'T EXIST**")
                    ch = input('TRY AGAIN?(Y/N) ')

            elif fno == 3:
                rno = int(input('ENTER ROOM NUMBER TO BE CANCELLED: '))
                l1 = []
                mc.execute('select room_no from f3_rooms')
                data = mc.fetchall()
                for i in data:
                    l1.append(i[0])
                if rno in l1:
                    mc.execute('select * from f3_rooms where room_no={}'.format(rno))
                    data = mc.fetchall()
                    status = 'AVAILABLE'
                    for i in data:
                        if i[2] == 'BOOKED':
                            mc.execute("update f3_rooms set status='{}' where room_no={}".format(status,rno))
                            mydb.commit()
                            mc.execute('select * from f3_rooms where room_no={}'.format(rno))
                            data = mc.fetchall()
                            print('-'*40)
                            print('============3RD FLOOR ROOMS============')
                            print('-'*40)
                            if mc.rowcount>0:
                                print('SNO','%14s'%'ROOM_NO','%17s'%'STATUS')
                                print('-'*40)
                            for i in data:
                                print(i[0],'%15s'%i[1],'%20s'%i[2])
                                print('-'*40)
                            mc.execute('delete from crecords where room_no={}'.format(rno))
                            mydb.commit()
                            print('**ROOM HAS BEEN CANCELLED**')
                            print('GOING BACK TO MAIN MENU....')
                            time.sleep(3)
                            main()

                        elif i[2] == 'AVAILABLE':
                            print('-'*40)
                            print('**ROOM HAS NEVER BEEN BOOKED**')
                            ch = input('TRY AGAIN?(Y/N) ')

                else:
                    print('-'*40)
                    print("**ROOM NO DOESN'T EXIST**")
                    ch = input('TRY AGAIN?(Y/N) ')
            else:
                print('-'*40)
                print('**INVALID FLOOR**')
                ch = input('TRY AGAIN?(Y/N) ')

        print('GOING BACK TO MAIN MENU....')
        time.sleep(3)
        main()

    #displaying customer records
    def crecords():
        mc.execute('select * from crecords')
        data = mc.fetchall()
        print('-'*50)
        print('==========DISPLAYING CUSTOMER RECORDS===========')
        print('-'*50)
        time.sleep(1)
        if mc.rowcount>0:
            print('ROOM NO','%12s'%'C_NAME','%13s'%'CHECK_IN','%14s'%'CHECK_OUT')
            print('-'*50)
        for i in data:
            print(i[0],'%16s'%i[1],'%13s'%i[2],'%14s'%i[3])
            print('-'*50)

    #displaying room prices
    def displaypr():
        mc.execute('select * from r_prices')
        data=mc.fetchall()
        print('-'*40)
        print('=======PRICES PER NIGHT (INR)=========')
        print('-'*40)
        if mc.rowcount>0:
            print('SNO','%15s'%'FLOORS','%15s'%'PRICE')
            print('-'*40)
        for i in data:
```

```python
          print(i[0],'%19s'%i[1],'%12s'%i[2])
          print('-'*40)

#displaying food prices
def foodprices():
     mc.execute('select * from food')
     data = mc.fetchall()
     print('-'*40)
     print('==============HOTEL MENU===============')
     print('-'*40)
     if mc.rowcount>0:
         print('SNO','%13s'%'MENU','%16s'%'PRICE')
         print('-'*40)
     for i in data:
         print(i[0],'%17s'%i[1],'%13s'%i[2])
         print('-'*40)

def dcheck():
     ch = 'y'
     while ch in 'Yy':
          print('*'*40)
          rno = int(input('ENTER YOUR ROOM NUMBER: '))
          n = input('ENTER YOUR NAME AS GIVEN IN RECORD: ')
          mc.execute('select room_no from crecords')
          data = mc.fetchall()
          list1 = []
          for i in data:
               list1.append(i[0])
          if rno in list1:
               mc.execute('select * from crecords where room_no={}'.format(rno))
               data = mc.fetchall()
               for i in data:
                    if i[1] == n.upper():
                         print('ROOM FOUND...')
                         print('-'*40)
                         time.sleep(2)
                         grand()
                    else:
                         print('-'*40)
                         print('**CUSTOMER RECORD NOT FOUND**')
                         ch=input('TRY AGAIN?(Y/N) ')
          else:
               print('-'*40)
               print("**ROOM NUMBER IS AVAILABLE/DOESN'T EXIST**")
               ch=input('TRY AGAIN?(Y/N) ')

     print('GOING BACK TO MAIN MENU....')
     time.sleep(3)
     main()

#Calculating grand total
def grand():
     ch = 'y'
     while ch in 'Yy':
          fno = int(input('ENTER YOUR FLOOR NUMBER: '))
          if fno in (1,2,3):
               mc.execute('select * from r_prices where sno={}'.format(fno))
               data = mc.fetchall()
               nn = int(input('NUMBER OF NIGHTS YOU HAVE STAYED: '))
               for i in data:
                    print('-'*40)
                    print('----DISPLAYING YOUR PRICE----')
                    time.sleep(2)
                    print('-'*40)
```

```
                print('YOUR ROOM PRICE IS',i[2] * nn)
                print('-'*40)
                print('YOUR TOTAL FOOD COST IS:',total)
                print('-'*40)
                time.sleep(2)
                gt= (i[2] * nn) + total
                print('YOUR GRAND TOTAL IS: ',gt)
                print('-'*40)
                print('**THANK YOU FOR YOUR STAY, VISIT AGAIN**')
                print('-'*40)
                time.sleep(2)
                exit()
        else:
            print("-"*40)
            print('**INVALID NUMBER GIVEN**')
            ch=input('TRY AGAIN?(Y/N) ')

    print('GOING BACK TO MAIN MENU....')
    time.sleep(3)
    main()

#Employee access
def employee():
    d = 12345
    ch = 'y'
    while ch == 'y':
        print('='*40)
        ena = input('ENTER EMPLOYEE NAME: ')
        l = []
        mc.execute('select emp_name from employee')
        data = mc.fetchall()
        for i in data:
            l.append(i[0])
        if ena.upper() in l:
            pw = int(input('ENTER PASSWORD: '))
            if pw == d:
                print('*'*40)
                print('WELCOME TO HOTEL EMPLOYEE ACCESS',ena.upper())
                break
            else:
                print('*'*40)
                print('**INVALID PASSWORD**')
                i=input('TRY AGAIN?(Y/N) ')
                if i in 'Nn':
                    print('GOING BACK TO MAIN MENU....')
                    time.sleep(2)
                    main()
        else:
            print("*"*40)
            print('**EMPLOYEE NOT FOUND**')
            e = input('TRY AGAIN?(Y/N) ')
            if e in 'Nn':
                print('GOING BACK TO MAIN MENU....')
                time.sleep(2)
                main()
    while True:
        time.sleep(1)
        print('='*50)
        print("""TO MODIFY ROOM PRICES, ENTER 1
TO MODIFY FOOD PRICES, ENTER 2
TO DISPLAY CUSTOMER RECORDS,ENTER 3
TO EXIT EMPLOYEE ACCESS,ENTER 4""")
        m=int(input("ENTER YOUR CHOICE: "))

```

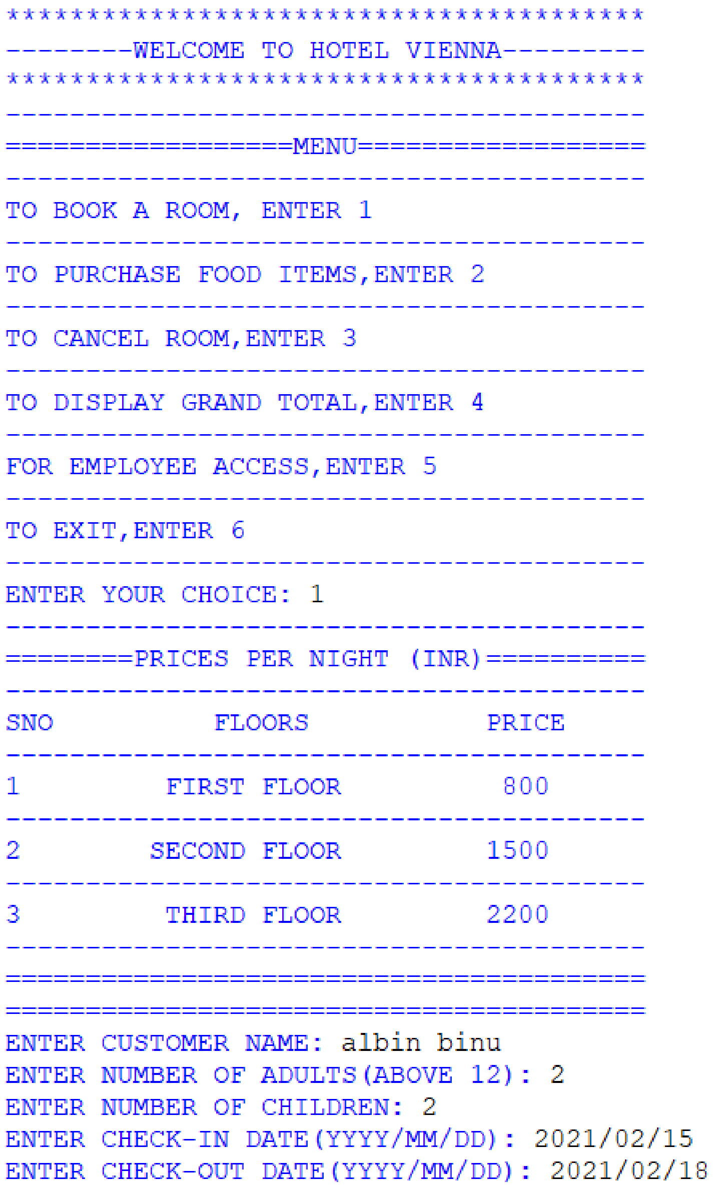
```
              if m == 1:
                   print('*'*40)
                   print("DISPLAYING ROOM PRICES.....")
                   time.sleep(2)
                   print()
                   displaypr()
                   time.sleep(1)
                   ch = 'y'
                   while ch in 'Yy':
                        print('-'*40)
                        print("""ENTER 1 TO MODIFY FIRST FLOOR
    ENTER 2 TO MODIFY SECOND FLOOR
    ENTER 3 TO MODIFY THIRD FLOOR""")
                        print('-'*40)
                        fno=int(input('ENTER FLOOR NUMBER: '))
                        if fno in (1,2,3):
                             mc.execute('select price from r_prices where sno={}'.format(fno))
                             data = mc.fetchall()
                             price = int(input('ENTER NEW PRICE: '))
                             for i in data:
                                  if price != i[0]:
                                       mc.execute('update r_prices set PRICE={} where sno={}'.format(price,fno))
                                       mydb.commit()
                                       mc.execute('select * from r_prices where sno={}'.format(fno))
                                       data = mc.fetchall()
                                       print('-'*40)
                                       print("=============PRICES CHANGED============")
                                       print('-'*40)
                                       if mc.rowcount>0:
                                            print('SNO','%14s'%'FLOORS','%17s'%'PRICE')
                                            print('-'*40)
                                       for i in data:
                                            print(i[0],'%15s'%i[1],'%20s'%i[2])
                                            print('-'*40)
                                       ch = input('CHANGE ANOTHER PRICE?(Y/N) ')
                                       if ch in 'Yy':
                                            break
                                       elif ch in 'Nn':
                                            print('-'*40)
                                            print('GOING BACK TO EMPLOYEE ACCESS....')
                                            time.sleep(2)

                                  elif price == i[0]:
                                       print('-'*40)
                                       print('**THE PRICE ENTERED IS SAME**')
                                       print('**TRY AGAIN**')
                                       time.sleep(2)
                                       break
                        else:
                             print('-'*40)
                             print('**INVALID FLOOR ENTERED**')
                             ch=input('TRY AGAIN?(Y/N) ')
                             if ch in 'Nn':
                                  print('GOING BACK TO EMPLOYEE ACCESS....')
                                  time.sleep(2)

              elif m==2:
                   print('*'*40)
                   print('DISPLAYING FOOD PRICES.....')
```

```
            time.sleep(2)
            print()
            foodprices()
            time.sleep(1)
            ch = 'y'
            while ch in 'Yy':
                print('-'*40)
                print("""ENTER 1 TO MODIFY DESSERT PRICES
    ENTER 2 TO MODIFY BEVERAGE PRICES
    ENTER 3 TO MODIFY BREAKFAST PRICES
    ENTER 4 TO MODIFY LUNCH PRICES
    ENTER 5 TO MODIFY DINNER PRICES""")
                print('-'*40)
                fono=int(input('ENTER FOOD CHOICE: '))
                if fono in (1,2,3,4,5):
                    mc.execute('select price from food where sno={}'.format(fono))
                    data = mc.fetchall()
                    price = int(input('ENTER NEW PRICE: '))
                    for i in data:
                        if price != i[0]:
                            mc.execute('update food set price={} where sno={}'.format(price,fono))
                            mydb.commit()
                            mc.execute('select * from food where sno={}'.format(fono))
                            data = mc.fetchall()
                            print('-'*40)
                            print('=============PRICES CHANGED=============’)

                            print('-'*40)
                            if mc.rowcount>0:
                                print('SNO','%18s'%'MENU','%17s'%'PRICE')
                                print('-'*40)
                            for i in data:
                                print(i[0],'%20s'%i[1],'%17s'%i[2])
                                print('-'*40)
                            ch = input('CHANGE ANOTHER PRICE?(Y/N) ')
                            if ch in 'Yy':
                                break
                            elif ch in 'Nn':
                                print('GOING BACK TO EMPLOYEE ACCESS....')
                                time.sleep(2)

                        elif price == i[0]:
                            print('-'*40)
                            print('**THE PRICE ENTERED IS SAME**')
                            print('**TRY AGAIN**')
                            time.sleep(2)
                            break
                else:
                    print("-"*40)
                    print('**INVALID CHOICE**')
                    ch=input('TRY AGAIN?(Y/N) ')
                    if ch in 'Nn':
                        print('GOING BACK TO EMPLOYEE ACCESS....')
                        time.sleep(2)

        elif m==3:
            crecords()

        elif m==4:
            print('-'*40)
            print('EXITING EMPLOYEE ACCESS...')
            time.sleep(2)
            main()

        else:
            print('-'*40)
            print('**YOU HAVE ENTERED AN INVALID OPTION**')
            ch=input('TRY AGAIN?(Y/N) ')
            if ch in 'Nn':
                print('GOING BACK TO MAIN MENU....')
                time.sleep(2)
                main()
#Main program
def main():

    try:
        print('-'*40)
        print('=================MENU=================')
        print('-'*40)
        print("TO BOOK A ROOM, ENTER 1")
        print('-'*40)
        print("TO PURCHASE FOOD ITEMS,ENTER 2")
        print('-'*40)
        print("TO CANCEL ROOM,ENTER 3")
        print('-'*40)
        print("TO DISPLAY GRAND TOTAL,ENTER 4")
        print('-'*40)
        print("FOR EMPLOYEE ACCESS,ENTER 5")
        print('-'*40)
        print("TO EXIT,ENTER 6")
        print('-'*40)
        c = int(input('ENTER YOUR CHOICE: '))

        if c == 1:
            b_room()

        elif c == 2:
            #total = 0
            foodpurchased()

        elif c == 3:
            cancel()

        elif c == 4:
            dcheck()

        elif c == 5:
            employee()

        elif c == 6:
            print('*'*20)
            print('EXITING...')
            time.sleep(2)
            exit()

        else:
            print('**YOU HAVE ENTERED AN INVALID CHOICE**')
            time.sleep(1)
            main()

    except:
        print('*'*64)
        print('**YOU HAVE ENTERED AN INVALID CHARACTER, PLEASE ENTER A NUMBER**')

        print('*'*64)
```

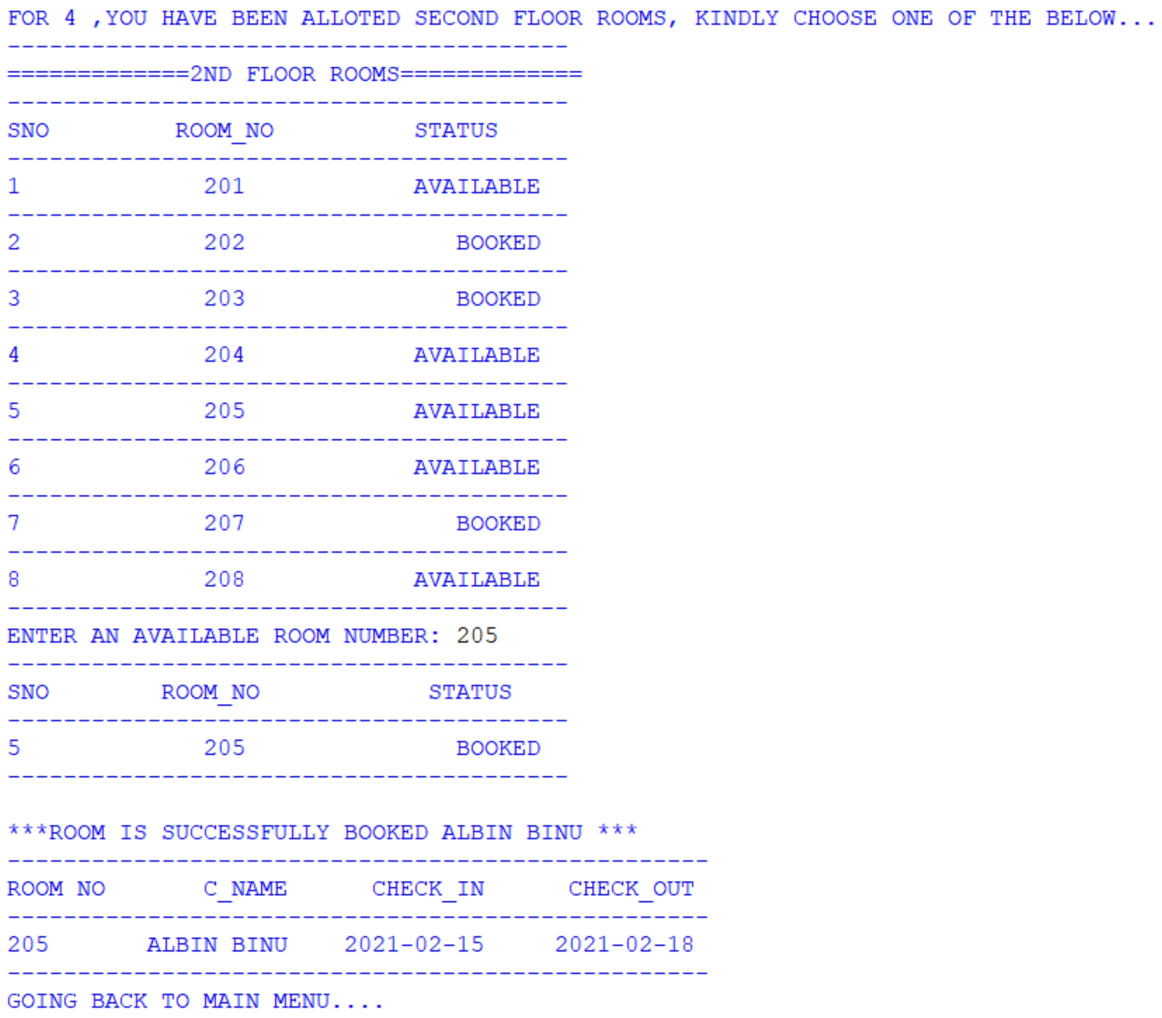
```python
            time.sleep(1)
            main()
print('*'*40)
print("--------WELCOME TO HOTEL VIENNA---------")
print('*'*40)
while True:
                main()
```

Output Screen

1) Booking a room

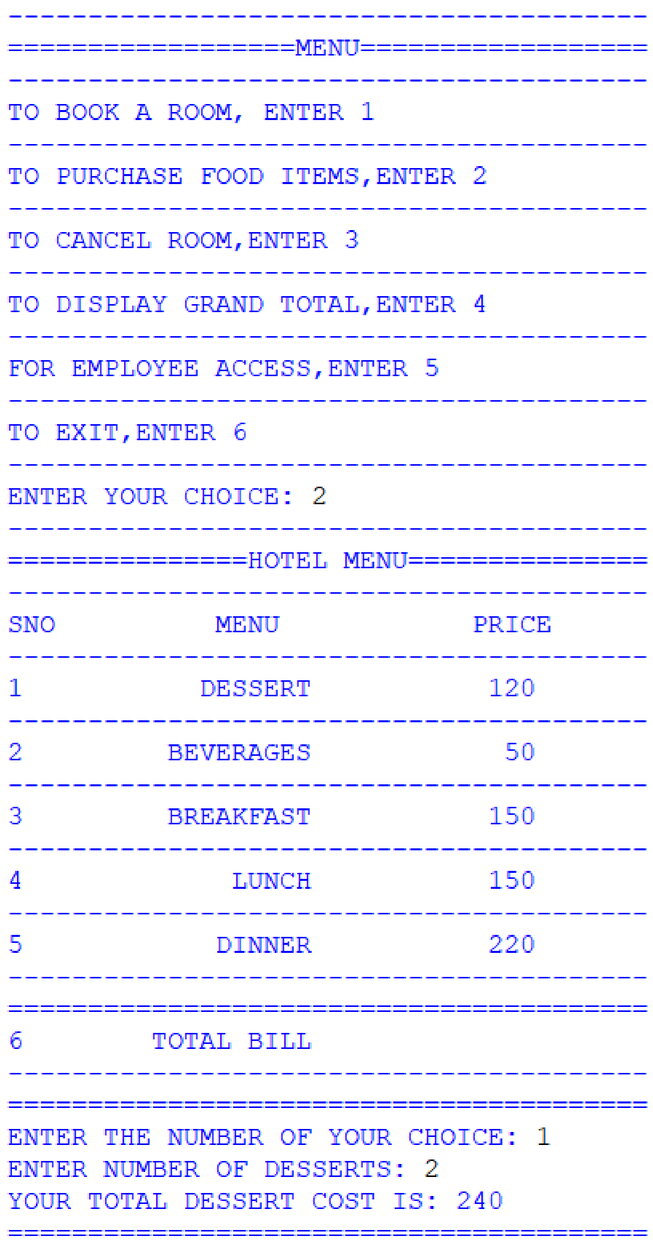


```
****************************************
--------WELCOME TO HOTEL VIENNA---------
****************************************
----------------------------------------
==================MENU==================
----------------------------------------
TO BOOK A ROOM, ENTER 1
----------------------------------------
TO PURCHASE FOOD ITEMS,ENTER 2
----------------------------------------
TO CANCEL ROOM,ENTER 3
----------------------------------------
TO DISPLAY GRAND TOTAL,ENTER 4
----------------------------------------
FOR EMPLOYEE ACCESS,ENTER 5
----------------------------------------
TO EXIT,ENTER 6
----------------------------------------
ENTER YOUR CHOICE: 1
----------------------------------------
========PRICES PER NIGHT (INR)==========
----------------------------------------
SNO          FLOORS           PRICE
----------------------------------------
1          FIRST FLOOR         800
----------------------------------------
2         SECOND FLOOR        1500
----------------------------------------
3          THIRD FLOOR        2200
----------------------------------------
========================================
========================================
ENTER CUSTOMER NAME: albin binu
ENTER NUMBER OF ADULTS(ABOVE 12): 2
ENTER NUMBER OF CHILDREN: 2
ENTER CHECK-IN DATE(YYYY/MM/DD): 2021/02/15
ENTER CHECK-OUT DATE(YYYY/MM/DD): 2021/02/18
```

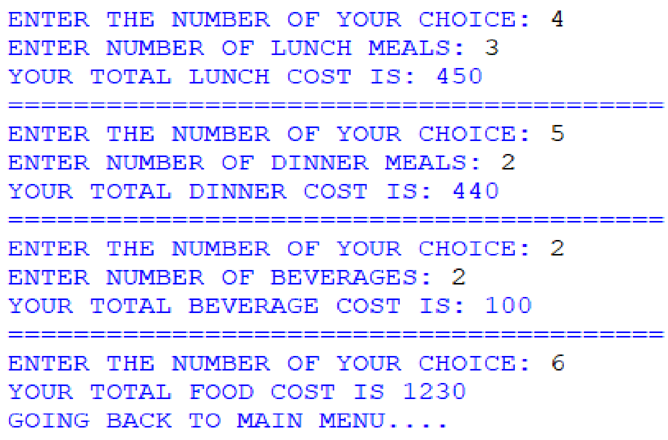


```
FOR 4 ,YOU HAVE BEEN ALLOTED SECOND FLOOR ROOMS, KINDLY CHOOSE ONE OF THE BELOW...
----------------------------------------
=============2ND FLOOR ROOMS=============
----------------------------------------
SNO         ROOM_NO          STATUS
----------------------------------------
1             201            AVAILABLE
----------------------------------------
2             202               BOOKED
----------------------------------------
3             203               BOOKED
----------------------------------------
4             204            AVAILABLE
----------------------------------------
5             205            AVAILABLE
----------------------------------------
6             206            AVAILABLE
----------------------------------------
7             207               BOOKED
----------------------------------------
8             208            AVAILABLE
----------------------------------------
ENTER AN AVAILABLE ROOM NUMBER: 205
----------------------------------------
SNO        ROOM_NO                STATUS
----------------------------------------
5             205               BOOKED
----------------------------------------

***ROOM IS SUCCESSFULLY BOOKED ALBIN BINU ***
--------------------------------------------------
ROOM NO       C_NAME      CHECK_IN      CHECK_OUT
--------------------------------------------------
205       ALBIN BINU    2021-02-15     2021-02-18
--------------------------------------------------
GOING BACK TO MAIN MENU....
```

2) PURCHASING FOOD

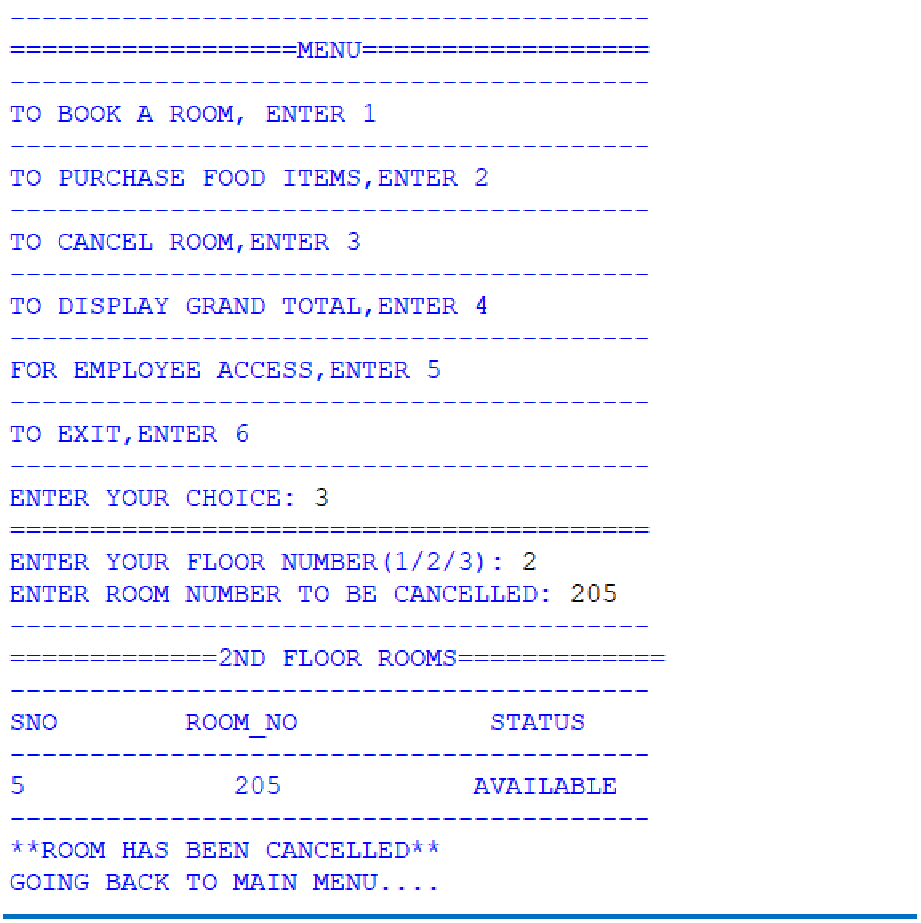


```
----------------------------------------
==================MENU==================
----------------------------------------
TO BOOK A ROOM, ENTER 1
----------------------------------------
TO PURCHASE FOOD ITEMS,ENTER 2
----------------------------------------
TO CANCEL ROOM,ENTER 3
----------------------------------------
TO DISPLAY GRAND TOTAL,ENTER 4
----------------------------------------
FOR EMPLOYEE ACCESS,ENTER 5
----------------------------------------
TO EXIT,ENTER 6
----------------------------------------
ENTER YOUR CHOICE: 2
----------------------------------------
===============HOTEL MENU===============
----------------------------------------
SNO          MENU              PRICE
----------------------------------------
1           DESSERT             120
----------------------------------------
2         BEVERAGES              50
----------------------------------------
3         BREAKFAST             150
----------------------------------------
4             LUNCH             150
----------------------------------------
5            DINNER             220
----------------------------------------
========================================
6        TOTAL BILL
----------------------------------------
========================================
ENTER THE NUMBER OF YOUR CHOICE: 1
ENTER NUMBER OF DESSERTS: 2
YOUR TOTAL DESSERT COST IS: 240
========================================
```



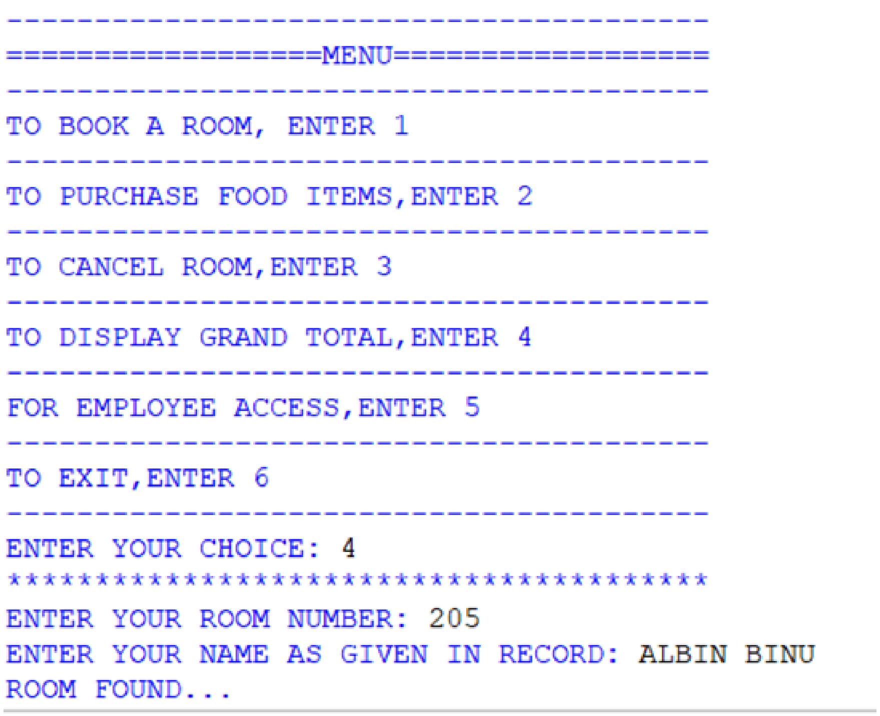
```
ENTER THE NUMBER OF YOUR CHOICE: 4
ENTER NUMBER OF LUNCH MEALS: 3
YOUR TOTAL LUNCH COST IS: 450
========================================
ENTER THE NUMBER OF YOUR CHOICE: 5
ENTER NUMBER OF DINNER MEALS: 2
YOUR TOTAL DINNER COST IS: 440
========================================
ENTER THE NUMBER OF YOUR CHOICE: 2
ENTER NUMBER OF BEVERAGES: 2
YOUR TOTAL BEVERAGE COST IS: 100
========================================
ENTER THE NUMBER OF YOUR CHOICE: 6
YOUR TOTAL FOOD COST IS 1230
GOING BACK TO MAIN MENU....
```

3) CANCELLING ROOM

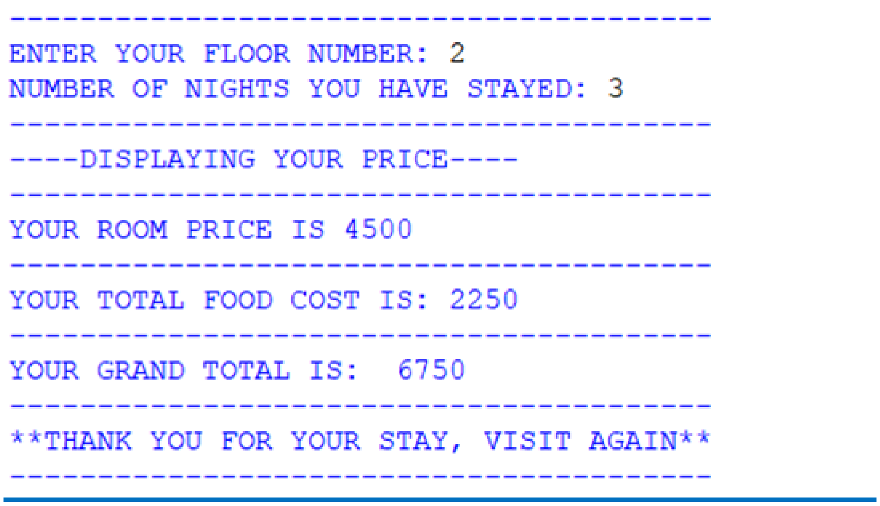


```
----------------------------------------
==================MENU==================
----------------------------------------
TO BOOK A ROOM, ENTER 1
----------------------------------------
TO PURCHASE FOOD ITEMS,ENTER 2
----------------------------------------
TO CANCEL ROOM,ENTER 3
----------------------------------------
TO DISPLAY GRAND TOTAL,ENTER 4
----------------------------------------
FOR EMPLOYEE ACCESS,ENTER 5
----------------------------------------
TO EXIT,ENTER 6
----------------------------------------
ENTER YOUR CHOICE: 3
========================================
ENTER YOUR FLOOR NUMBER(1/2/3): 2
ENTER ROOM NUMBER TO BE CANCELLED: 205
----------------------------------------
=============2ND FLOOR ROOMS=============
----------------------------------------
SNO        ROOM_NO            STATUS
----------------------------------------
5             205            AVAILABLE
----------------------------------------
**ROOM HAS BEEN CANCELLED**
GOING BACK TO MAIN MENU....
```

4) DISPLAYING GRAND TOTAL

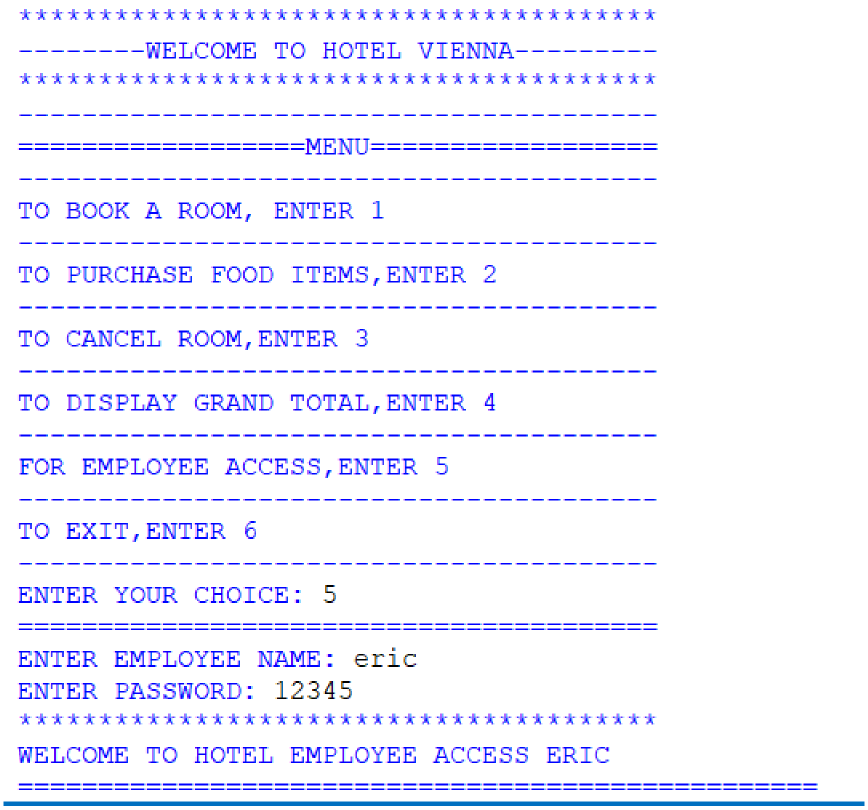


```
----------------------------------------
==================MENU==================
----------------------------------------
TO BOOK A ROOM, ENTER 1
----------------------------------------
TO PURCHASE FOOD ITEMS,ENTER 2
----------------------------------------
TO CANCEL ROOM,ENTER 3
----------------------------------------
TO DISPLAY GRAND TOTAL,ENTER 4
----------------------------------------
FOR EMPLOYEE ACCESS,ENTER 5
----------------------------------------
TO EXIT,ENTER 6
----------------------------------------
ENTER YOUR CHOICE: 4
****************************************
ENTER YOUR ROOM NUMBER: 205
ENTER YOUR NAME AS GIVEN IN RECORD: ALBIN BINU
ROOM FOUND...
```



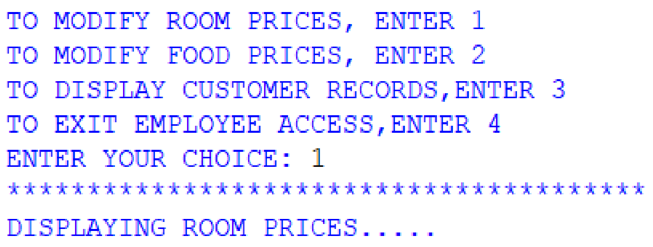
```
----------------------------------------
ENTER YOUR FLOOR NUMBER: 2
NUMBER OF NIGHTS YOU HAVE STAYED: 3
----------------------------------------
----DISPLAYING YOUR PRICE----
----------------------------------------
YOUR ROOM PRICE IS 4500
----------------------------------------
YOUR TOTAL FOOD COST IS: 2250
----------------------------------------
YOUR GRAND TOTAL IS:  6750
----------------------------------------
**THANK YOU FOR YOUR STAY, VISIT AGAIN**
----------------------------------------
```

5) EMPLOYEE ACCESS

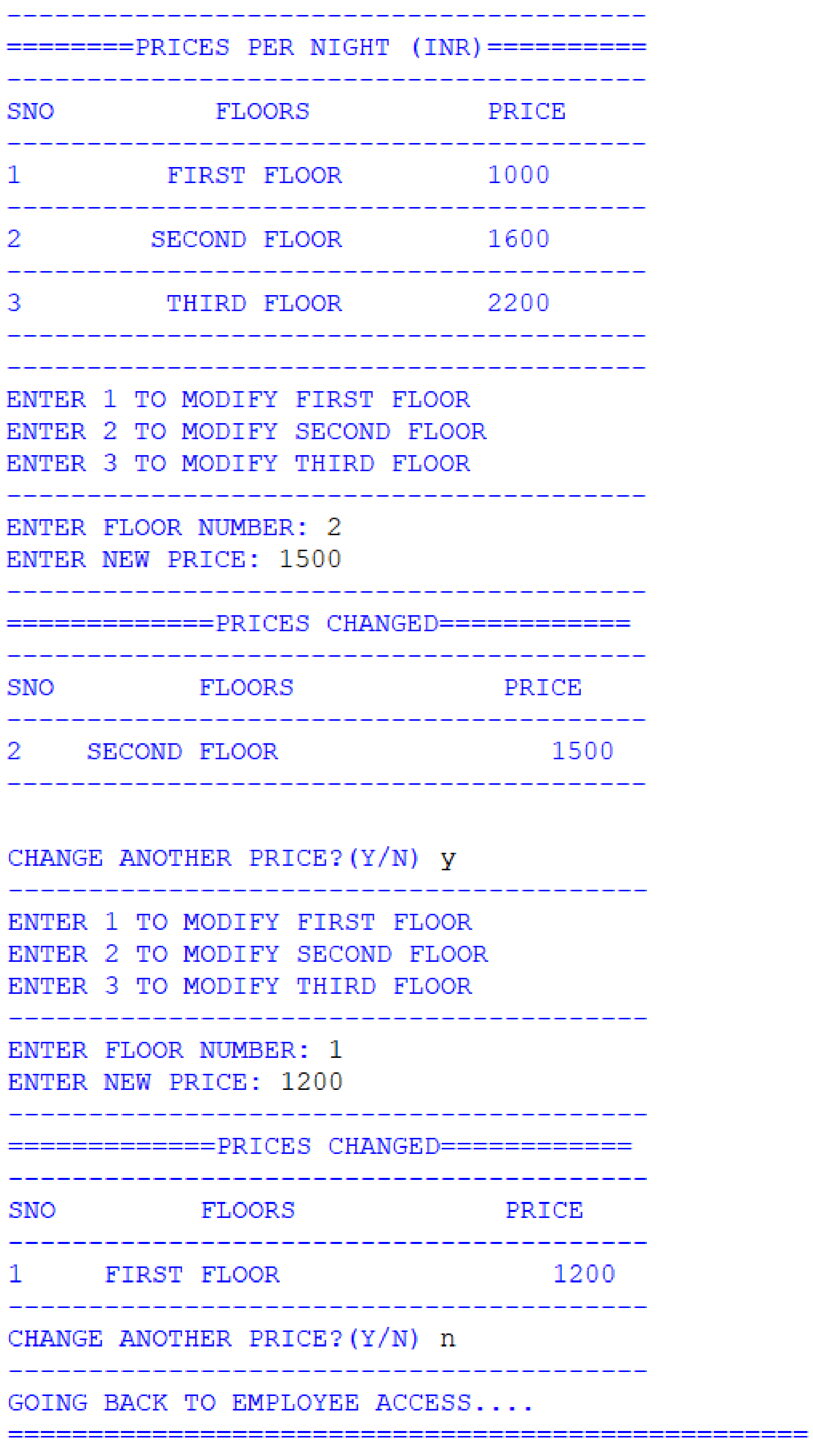


```
****************************************
--------WELCOME TO HOTEL VIENNA---------
****************************************
----------------------------------------
==================MENU==================
----------------------------------------
TO BOOK A ROOM, ENTER 1
----------------------------------------
TO PURCHASE FOOD ITEMS,ENTER 2
----------------------------------------
TO CANCEL ROOM,ENTER 3
----------------------------------------
TO DISPLAY GRAND TOTAL,ENTER 4
----------------------------------------
FOR EMPLOYEE ACCESS,ENTER 5
----------------------------------------
TO EXIT,ENTER 6
----------------------------------------
ENTER YOUR CHOICE: 5
========================================
ENTER EMPLOYEE NAME: eric
ENTER PASSWORD: 12345
****************************************
WELCOME TO HOTEL EMPLOYEE ACCESS ERIC
==================================================
```

5.1) MODIFYING ROOM PRICES

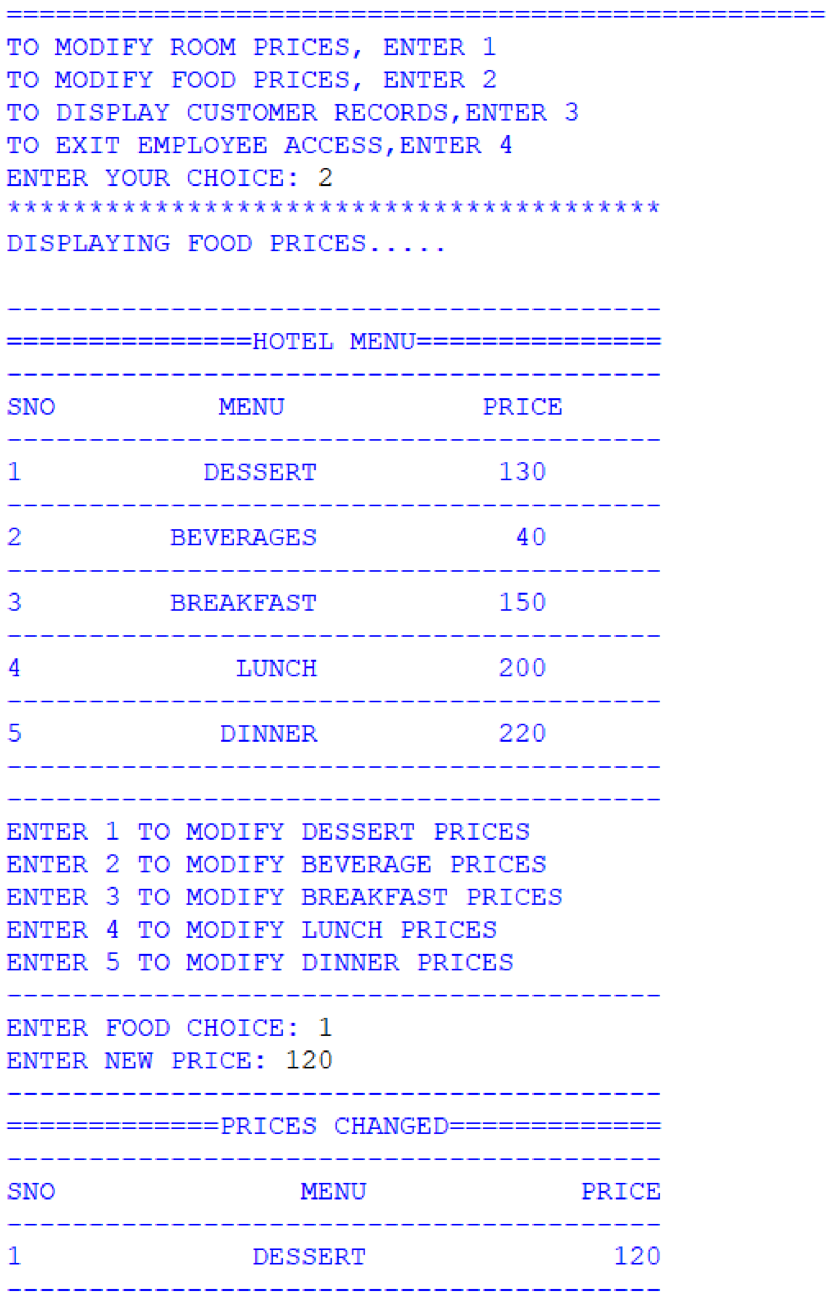


```
TO MODIFY ROOM PRICES, ENTER 1
TO MODIFY FOOD PRICES, ENTER 2
TO DISPLAY CUSTOMER RECORDS,ENTER 3
TO EXIT EMPLOYEE ACCESS,ENTER 4
ENTER YOUR CHOICE: 1
****************************************
DISPLAYING ROOM PRICES.....
```

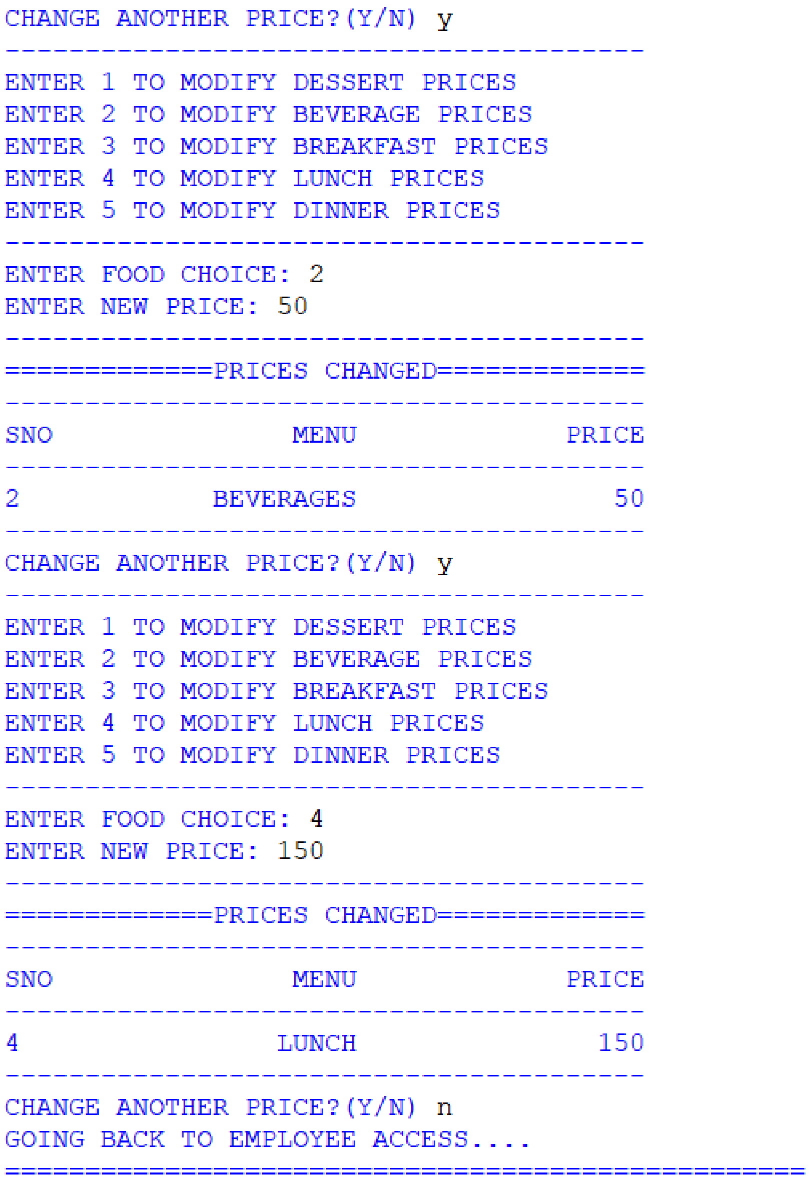


```
----------------------------------------
========PRICES PER NIGHT (INR)==========
----------------------------------------
SNO            FLOORS            PRICE
----------------------------------------
1          FIRST FLOOR          1000
----------------------------------------
2         SECOND FLOOR          1600
----------------------------------------
3          THIRD FLOOR          2200
----------------------------------------
----------------------------------------
ENTER 1 TO MODIFY FIRST FLOOR
ENTER 2 TO MODIFY SECOND FLOOR
ENTER 3 TO MODIFY THIRD FLOOR
----------------------------------------
ENTER FLOOR NUMBER: 2
ENTER NEW PRICE: 1500
----------------------------------------
=============PRICES CHANGED===========
----------------------------------------
SNO           FLOORS              PRICE
----------------------------------------
2    SECOND FLOOR                    1500
----------------------------------------

CHANGE ANOTHER PRICE?(Y/N) y
----------------------------------------
ENTER 1 TO MODIFY FIRST FLOOR
ENTER 2 TO MODIFY SECOND FLOOR
ENTER 3 TO MODIFY THIRD FLOOR
----------------------------------------
ENTER FLOOR NUMBER: 1
ENTER NEW PRICE: 1200
----------------------------------------
=============PRICES CHANGED===========
----------------------------------------
SNO           FLOORS              PRICE
----------------------------------------
1     FIRST FLOOR                    1200
----------------------------------------
CHANGE ANOTHER PRICE?(Y/N) n
----------------------------------------
GOING BACK TO EMPLOYEE ACCESS....
==================================================
```

5.2) MODIFYING FOOD PRICES

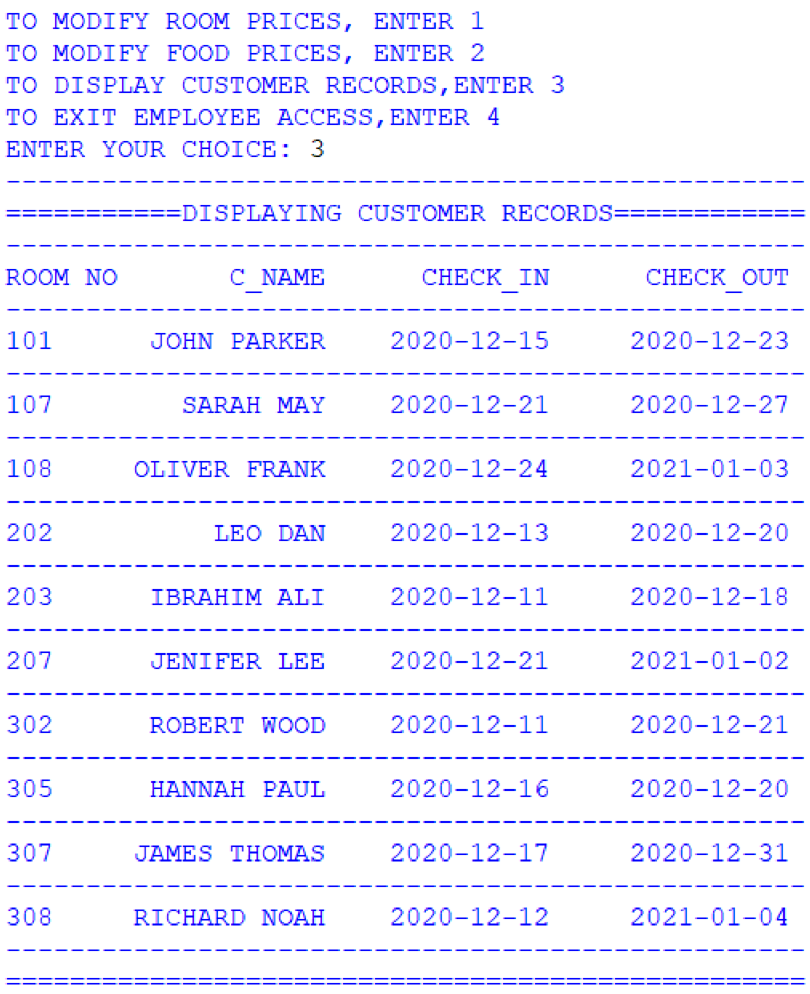


```
==================================================
TO MODIFY ROOM PRICES, ENTER 1
TO MODIFY FOOD PRICES, ENTER 2
TO DISPLAY CUSTOMER RECORDS,ENTER 3
TO EXIT EMPLOYEE ACCESS,ENTER 4
ENTER YOUR CHOICE: 2
****************************************
DISPLAYING FOOD PRICES.....

----------------------------------------
===============HOTEL MENU===============
----------------------------------------
SNO          MENU            PRICE
----------------------------------------
1           DESSERT           130
----------------------------------------
2         BEVERAGES            40
----------------------------------------
3         BREAKFAST           150
----------------------------------------
4             LUNCH           200
----------------------------------------
5            DINNER           220
----------------------------------------
----------------------------------------
ENTER 1 TO MODIFY DESSERT PRICES
ENTER 2 TO MODIFY BEVERAGE PRICES
ENTER 3 TO MODIFY BREAKFAST PRICES
ENTER 4 TO MODIFY LUNCH PRICES
ENTER 5 TO MODIFY DINNER PRICES
----------------------------------------
ENTER FOOD CHOICE: 1
ENTER NEW PRICE: 120
----------------------------------------
=============PRICES CHANGED=============
----------------------------------------
SNO               MENU              PRICE
----------------------------------------
1              DESSERT                120
----------------------------------------
```

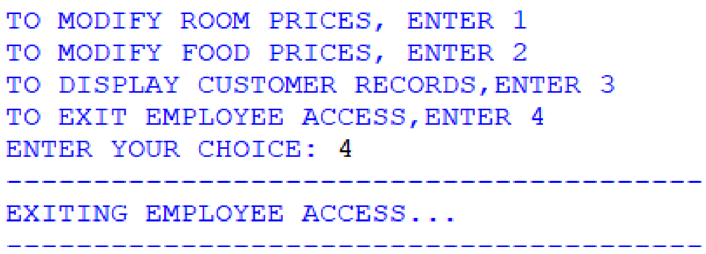


```
CHANGE ANOTHER PRICE?(Y/N) y
----------------------------------------
ENTER 1 TO MODIFY DESSERT PRICES
ENTER 2 TO MODIFY BEVERAGE PRICES
ENTER 3 TO MODIFY BREAKFAST PRICES
ENTER 4 TO MODIFY LUNCH PRICES
ENTER 5 TO MODIFY DINNER PRICES
----------------------------------------
ENTER FOOD CHOICE: 2
ENTER NEW PRICE: 50
----------------------------------------
=============PRICES CHANGED=============
----------------------------------------
SNO               MENU             PRICE
----------------------------------------
2            BEVERAGES                50
----------------------------------------
CHANGE ANOTHER PRICE?(Y/N) y
----------------------------------------
ENTER 1 TO MODIFY DESSERT PRICES
ENTER 2 TO MODIFY BEVERAGE PRICES
ENTER 3 TO MODIFY BREAKFAST PRICES
ENTER 4 TO MODIFY LUNCH PRICES
ENTER 5 TO MODIFY DINNER PRICES
----------------------------------------
ENTER FOOD CHOICE: 4
ENTER NEW PRICE: 150
----------------------------------------
=============PRICES CHANGED=============
----------------------------------------
SNO               MENU             PRICE
----------------------------------------
4                LUNCH               150
----------------------------------------
CHANGE ANOTHER PRICE?(Y/N) n
GOING BACK TO EMPLOYEE ACCESS....
==================================================
```

5.3) DISPLAYING CUSTOMER RECORDS



```
TO MODIFY ROOM PRICES, ENTER 1
TO MODIFY FOOD PRICES, ENTER 2
TO DISPLAY CUSTOMER RECORDS,ENTER 3
TO EXIT EMPLOYEE ACCESS,ENTER 4
ENTER YOUR CHOICE: 3
--------------------------------------------------
===========DISPLAYING CUSTOMER RECORDS============
--------------------------------------------------
ROOM NO       C_NAME      CHECK_IN      CHECK_OUT
--------------------------------------------------
101      JOHN PARKER    2020-12-15     2020-12-23
--------------------------------------------------
107        SARAH MAY    2020-12-21     2020-12-27
--------------------------------------------------
108     OLIVER FRANK    2020-12-24     2021-01-03
--------------------------------------------------
202          LEO DAN    2020-12-13     2020-12-20
--------------------------------------------------
203      IBRAHIM ALI    2020-12-11     2020-12-18
--------------------------------------------------
207      JENIFER LEE    2020-12-21     2021-01-02
--------------------------------------------------
302      ROBERT WOOD    2020-12-11     2020-12-21
--------------------------------------------------
305      HANNAH PAUL    2020-12-16     2020-12-20
--------------------------------------------------
307     JAMES THOMAS    2020-12-17     2020-12-31
--------------------------------------------------
308     RICHARD NOAH    2020-12-12     2021-01-04
--------------------------------------------------
==================================================
```



```
TO MODIFY ROOM PRICES, ENTER 1
TO MODIFY FOOD PRICES, ENTER 2
TO DISPLAY CUSTOMER RECORDS,ENTER 3
TO EXIT EMPLOYEE ACCESS,ENTER 4
ENTER YOUR CHOICE: 4
----------------------------------------
EXITING EMPLOYEE ACCESS...
----------------------------------------
```

REFERENCE MANUAL

- Computer Science with Python by Preeti Arora

- https://www.python.org/doc/versions/

- Computer Science with Python by Sumita Arora

- https://www.w3schools.com/python

- https://sultan-chand.com/ws/python12/#p=1

Conclusion

I am happy to present this project on *'HOTEL MANAGEMENT'.* Our team has been successful in implementing the Project in Python with connectivity to SQL so as to enable permanent storage of data.

Working on the Project has helped me explore the different scopes of Python. It has enabled me to analyse

I hope that my Project is of help to some extent. I have had a great opportunity to learn and research on this topic.

Limitations

- The project will not work if the input data does not match the actual data types.
- Graphics could be added to the program code.
- The code could be more condensed.