#Declare constants

price\_per\_night = 455.00

breakfast\_price = 8.75

discount1 = 0.05

discount2 = 0.075

def get\_name():

flag = True

while flag:

name = input("Please enter your name: ")

if len(name) < 2 or len(name) > 50:

print("Sorry, you did not enter a valid name")

flag = True

else:

for char in name:

if char.isdigit():

print("Sorry, you did not enter a valid name")

flag = True

else:

return name

def phone\_num():

flag = True

while flag:

number = input("Please enter your phone number: ")

try:

int(number)

except:

print("Sorry, you did not enter a valid number")

flag = True

else:

if len(number) != 11:

print("Sorry, you did not enter a valid number")

flag = True

else:

for digit in number:

if digit.isdigit() == False:

print("Sorry, you did not enter a valid name")

flag = True

else:

return number

def get\_email():

flag = True

while flag:

email = input("Please enter your email address: ")

if "@" not in email:

print("Sorry, you did not enter a email address")

print("Your email must contain the @ symbol")

flag = True

else:

return email

def hotel\_choice():

print("###############################################")

print("Please choose the hotel location")

print("1. London")

print("2. Manchester")

print("3. Edinburgh")

print("###############################################")

choice = input("Please enter the number of your choice (1-3): ")

locations = ["London", "Manchester", "Edinburgh"]

hotel = locations[int(choice)-1]

return hotel

def get\_arrival\_date():

flag = True

while flag:

date = input("Please enter the date of arrival (DD/MM/YYYY): ")

if len(date) != 10:

print("The date has to be in the format DD/MM/YYYY")

flag = True

elif not date[:2].isdigit() or not date[3:5].isdigit() or not date[6:].isdigit():

print("Incorrect date format entered.")

flag = True

elif not date[2] == "/" or not date[5] == "/":

print("Incorrect date format entered. You must use '/' as the date separator.")

flag = True

else:

return date

def get\_stay\_length():

flag = True

while flag:

nights = input("Please enter the number nights you wish to stay: ")

try:

int(nights)

except:

print("Sorry, you did not enter a valid input")

flag = True

else:

if int(nights) < 1:

print("Sorry, you did not enter a valid input")

flag = True

else:

return nights

def get\_number\_people():

flag = True

while flag:

people = input("Please enter the number of people: ")

try:

int(people)

except:

print("Sorry, you did not enter a valid input")

flag = True

else:

if int(people) < 1:

print("Sorry, you did not enter a valid input")

flag = True

else:

return people

def get\_breakfast():

flag = True

while flag:

choice = input("Would you like to include breakfast? (Y/N) ").upper()

if choice == "YES" or choice == "Y" or choice == "NO" or choice == "N":

return choice

else:

print("Sorry, you did not enter a valid input")

flag = True

#get the personal details

name = get\_name()

address = input("please enter your address")

phone\_number = phone\_num()

email\_add = get\_email()

#Get the stay details

location = hotel\_choice()

date = get\_arrival\_date()

number\_of\_nights = get\_stay\_length()

number\_people = get\_number\_people()

breakfast = get\_breakfast()

room\_cost = (price\_per\_night \*int(number\_people) \* int(number\_of\_nights))

def calculate\_breakfast():

if breakfast == "Y" or breakfast == "N":

breakfast\_cost = (float(breakfast\_price) \* int(number\_people)) \* int(number\_of\_nights)

else:

breakfast\_cost = 0.00

return breakfast\_cost

breakfast\_cost = calculate\_breakfast()

subtotal = float(room\_cost) + float(breakfast\_cost)

def returning\_cust():

flag = True

while flag:

returning = input("Have you stayed with us before? (Y/N) ").upper()

if returning == ("Y" or returning == "Yes") or returning == ("N" or returning == "N"):

return returning

else:

print("Sorry, you did not enter a valid input")

flag = True

returning\_customer = returning\_cust()

def length\_discount():

if int(number\_of\_nights) < 10:

len\_discount = "Yes"

else:

len\_discount = "No"

return len\_discount

len\_discount = length\_discount()

def calculate\_discount():

discounts = subtotal

if returning\_customer == "YES" or returning\_customer == "Y" and len\_discount == "Yes":

print("Welcome back. A loyalty discount has been applied to your bill")

print("Also get a discount for staying for 10 nights or more")

discounts = (discounts \* discounts) + (discounts \* discounts)

return discounts

elif returning\_customer == "YES" or returning\_customer == "Y" and len\_discount == "No":

print("Welcome back. A loyalty discount has been applied to your bill")

discounts = (discounts \* discount1)

return discounts

elif returning\_customer == "NO" or returning\_customer == "N" and len\_discount == "Yes":

print("You have been given a discount for staying for 10 nights or more")

discounts = (discounts \* discount2)

return discounts

discount\_value = calculate\_discount()

totalCost = float(subtotal) - float(discount\_value)

#generate screen output

print("Here is a reciept for you records")

print("#########Booking Details##############")

print("Name: ", name)

print("Address: ", address)

print("Phone Number: ", phone\_number)

print ("Email: ", email\_add)

print("Booked Hotel: ", location)

print ("Date of Arrival: ", date)

print("Number of Nights", number\_of\_nights )

print("Number of People: ", number\_people)

print("Breakfast: ", breakfast)

print("")

print("##############Costs################")

print("Room: £", room\_cost)

print("Breakfast: £", breakfast\_cost)

print("Return Discount: ", returning\_customer)

print("10 Nights or More: ", len\_discount)

print("Cost before discounts: £", subtotal)

print('Discounts: -£', discount\_value)

print("Total cost of stay: £", totalCost)

#output to text file

with open("reciept.txt", "w") as txt:

txt.write("Here is a reciept for you records")

txt.write("#########Booking Details##############")

txt.write("Name: {}".format(name))

txt.write("Address: {}".format(address))

txt.write("Phone Number:{}".format(phone\_number))

txt.write ("Email: {}".format(email\_add))

txt.write("Booked Hotel: {}".format(location))

txt.write ("Date of Arrival:{}".format(date))

txt.write("Number of Nights: {}".format(number\_of\_nights))

txt.write("Number of People: {}".format(number\_people))

txt.write("Breakfast:{}".format(breakfast))

txt.write("\n")

txt.write("##############Costs################")

txt.write("Room: £ {}".format(room\_cost))

txt.write("Breakfast: £{}".format(breakfast\_cost))

txt.write("Return Discount: {}".format(returning\_customer))

txt.write("10 Nights or More: {}".format(len\_discount))

txt.write("Cost before discounts: £ {}".format(subtotal))

txt.write("Discounts: -£{}".format(discount\_value))

txt.write("Total cost of stay: £ {}".format(totalCost))