**Python questions based on if-else statements.**

**1. Discount Calculator**

**Write a program that takes the price of a product as input.**

**If the price is greater than ₹500, apply a 10% discount; otherwise, apply a 5% discount. Display the final price.**

**Solution:**

price=float(input("Enter the price of the product:"))

if price>500:

    discount=price\*0.10

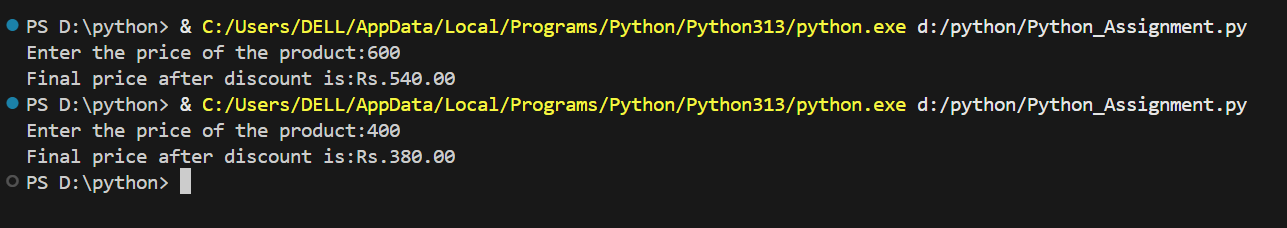
else:

    discount=price \* 0.05

final\_price= price - discount

print(f"Final price after discount is:Rs.{final\_price:.2f}")

**Output:**

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**2. Driving Eligibility**

**Take the user's age as input.**

**If the age is 18 or above, display "Eligible to drive"; otherwise, display "Not eligible to drive."**

**Solution:**

age=int(input("enter your age :"))

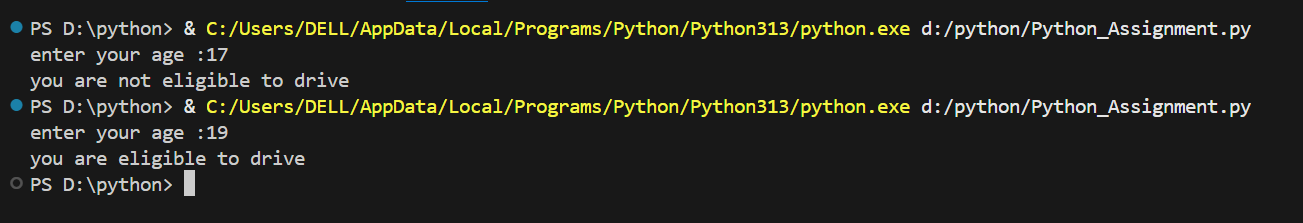
if age>=18:

    print("you are eligible to drive ")

else:

    print("you are not eligible to drive")

**Output:**

****

**4. Store Timing**

**Write a program that asks the current time (24-hour format).**

**If the time is between 9 AM and 9 PM, print "Store is open"; otherwise, print "Store is closed."**

**Solution:**

time=int(input("enter the current time(24-hour format):"))

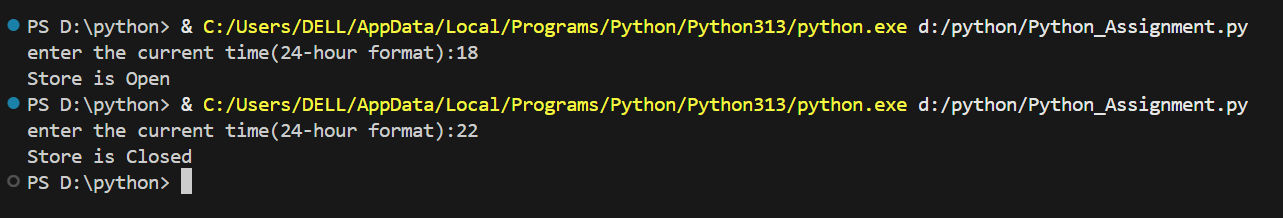
if time>=9 and time<=21:

    print("Store is Open")

else:

    print("Store is Closed")

**Output:**

****

**5. Pass or Fail**

**Take the user's marks as input.**

**If the marks are 40 or above, print "Pass"; otherwise, print "Fail."**

**Solution:**

marks=int(input("enter the marks:"))

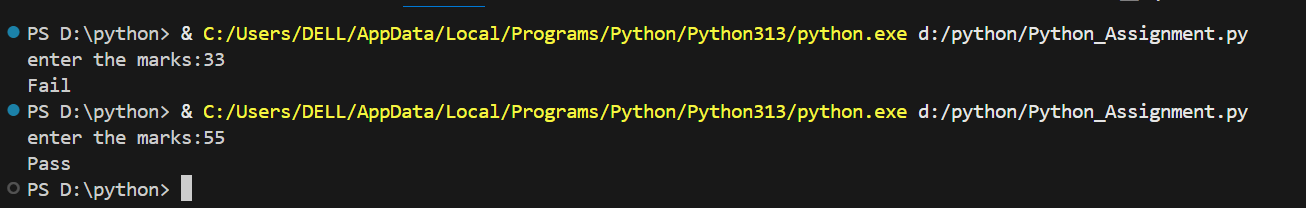
if marks>=40:

    print("Pass")

else:

    print("Fail")

**Output:**

****

**6. Prime Membership**

**Write a program that asks if the user has a Prime membership.**

**If the user enters "yes," offer free delivery; otherwise, charge ₹50 for delivery.**

**Solution:**

prime=input("Do you Have prime Membership(yes/no):")

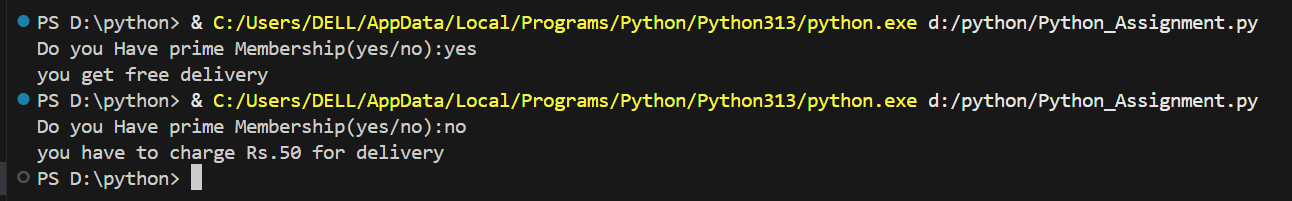
if prime=='yes':

    print("you get free delivery")

else:

    print("you have to charge Rs.50 for delivery")

**Output:**

****

**7. Leap Year Checker**

**Take a year as input.**

**Check if it is a leap year or not using an if-else statement.**

**Solution:**

year = int(input("Enter a year: "))

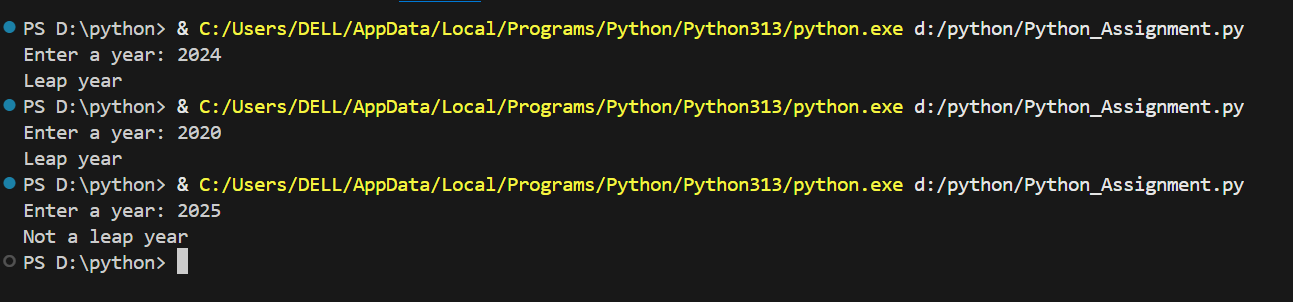
if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):

    print("Leap year")

else:

    print("Not a leap year")

**Output:**

****

**8. Temperature Alert**

**Take the current temperature as input.**

**If the temperature is above 40°C, display "Heat Alert"; if it’s below 0°C, display "Cold Alert"; otherwise, display "Normal Weather."**

**Solution:**

temp=float(input("enter the temperature in celsius(°C):"))

if temp>40:

    print("Heat Alert")

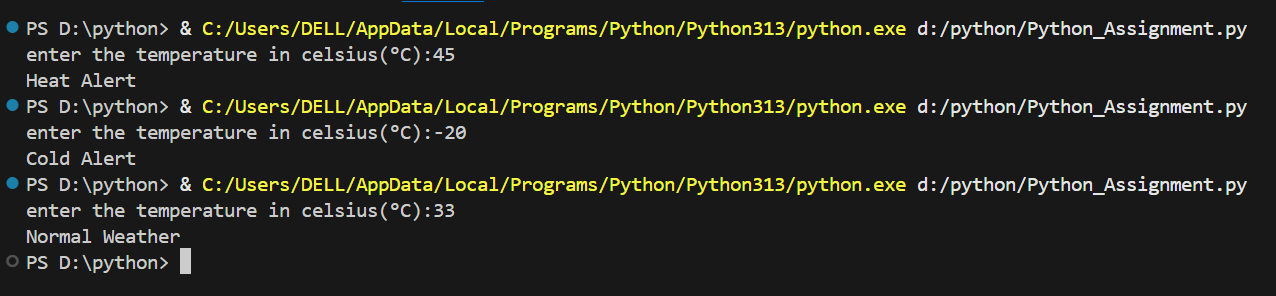
elif temp<0:

    print("Cold Alert")

else:

    print("Normal Weather")

**Output:**

****

**9. Grade Calculator**

**Ask the user for their percentage marks.**

**Use if-else statements to print the grade based on the following:**

**90% and above: A+**

**80%–89%: A**

**70%–79%: B**

**Below 70%: C**

**Solution:**

marks=float(input("enter your percentage of marks:"))

if marks>=90:

    print("A+")

elif marks>=80 and marks<=89:

    print("A")

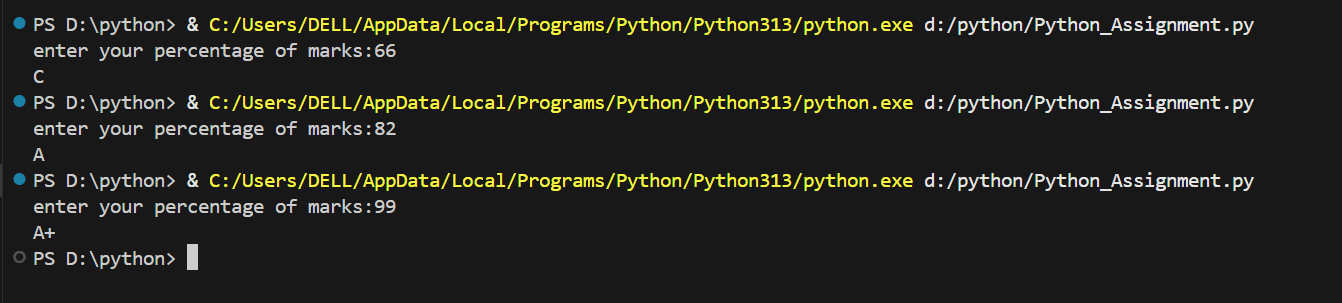
elif marks>=70 and marks<=79:

    print("B")

else:

    print("C")

**Output:**

****

**10. Bank Withdrawal**

**Take the balance in a bank account and the amount the user wants to withdraw as input. If the withdrawal amount is less than or equal to the balance, print "Withdrawal successful"; otherwise, print "Insufficient balance."**

**Solution:**

balance=float(input("enter the balance of your account:"))

amount=float(input("enter the amount you want to withdraw:"))

if amount<=balance:

    print("withdraw Successful")

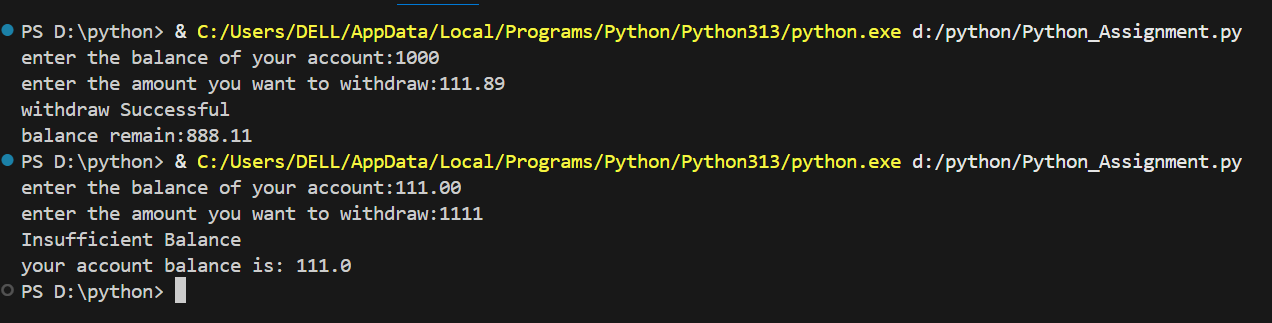
    print(f"balance remain:{balance - amount :.2f}")

else:

    print("Insufficient Balance")

    print("your account balance is:",balance)

**Output:**

****

**11. Number Comparison**

**Ask the user to input two numbers.**

**Print whether the first number is greater, smaller, or equal to the second number.**

**Solution:**

first=int(input("enter any number:"))

second=int(input("enter the second number:"))

if first>second:

    print(f"{first} is greater than {second}")

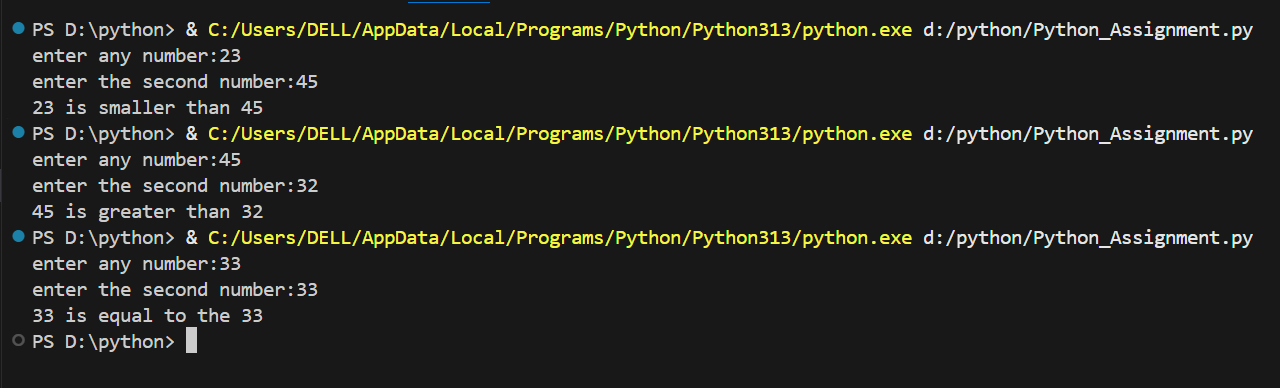
elif first<second:

    print(f"{first} is smaller than {second}")

else:

    print(f"{first} is equal to the {second}")

**Output:**

****

**12. Password Validator**

**Ask the user to input a password.**

**If it matches a predefined password (e.g., "secure123"), print "Access granted"; otherwise, print "Access denied."**

**Solution:**

saved\_password="secure123"

password=input("enter your password:")

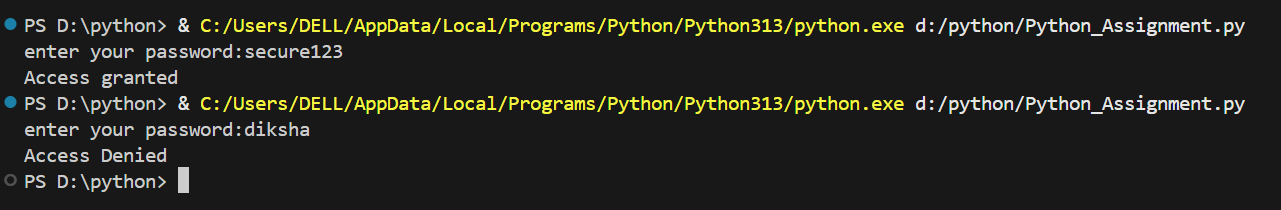
if password==saved\_password:

    print("Access granted")

else:

    print("Access Denied")

**Output:**

****

**13. Evening Discount**

**If the current time is between 6 PM and 9 PM, apply a 20% discount on the product price entered by the user. Otherwise, no discount is applied**

**Solution:**

import datetime

time=datetime.datetime.now().hour

price=float(input("enter the price of your product:"))

print("current time is:",time)

if time>=18 and time<=21:

     discount=price \* 0.20

     print("discount applied")

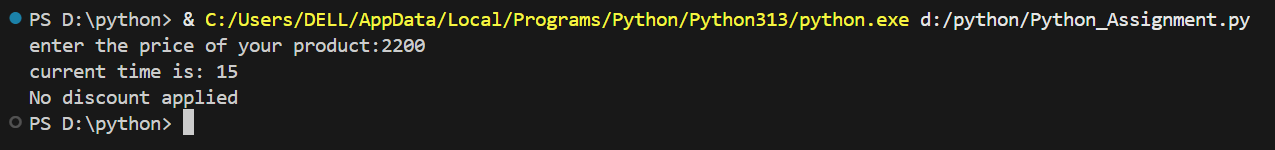
     final\_price= price - discount

     print(f"Final price after discount is:Rs.{final\_price:.2f}")

else:

     print("No discount applied")

**Output:**

****

**14. Eligible for Voting**

**Take the user's citizenship ("Indian" or "Other") and age as input.**

**If the user is Indian and 18 or above, print "Eligible to vote"; otherwise, print "Not eligible to vote."**

**Solution:**

nationality=input("Enter your nationality:").strip() .lower()

age=int(input("enter your age:"))

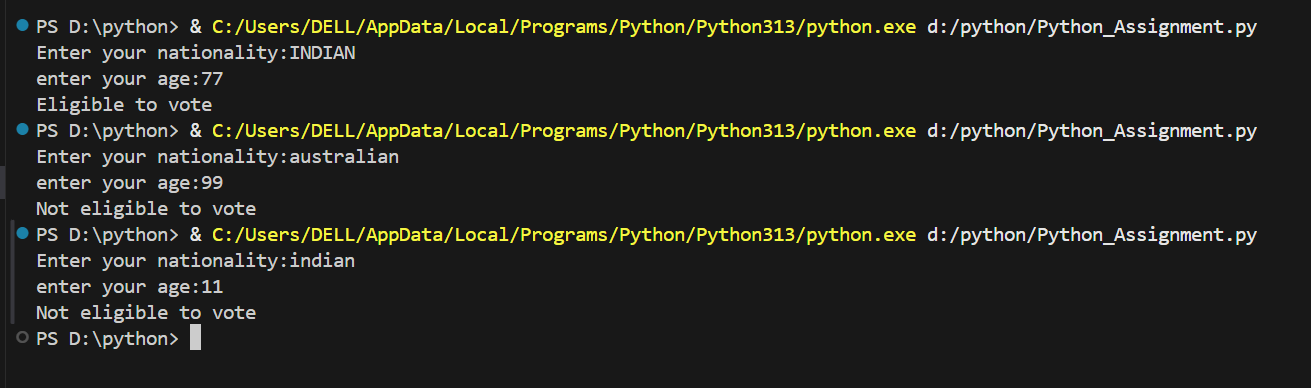
if nationality == "indian" and  age >= 18:

    print("Eligible to vote")

else:

    print("Not eligible to vote")

**Output:**

****

**15. Restaurant Bill Split**

**Ask the user for the number of people in a group.**

**If it’s greater than 5, apply a 15% service charge on the total bill amount entered by the user.**

**Solution:**

total\_bill=float(input("Enter the total bill:"))

group=int(input("Enter the number of people in your group:"))

if group>5:

    charge=total\_bill\*0.15

    total\_bill=total\_bill + charge

    print(f"15% service charges as per your total bill is: Rs.{charge:.2f}")

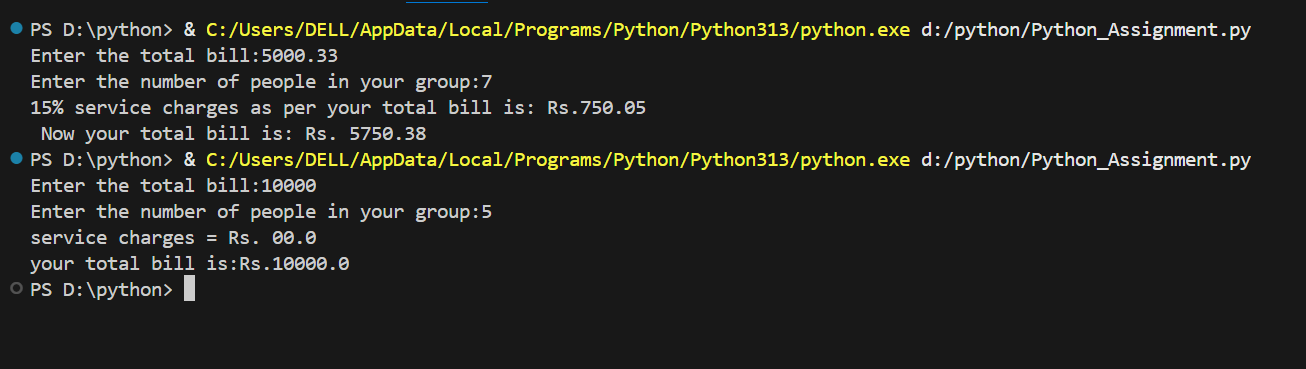
    print(f" Now your total bill is: Rs. {total\_bill:.2f}")

else:

    print(f"service charges = Rs. 00.0")

    print(f"your total bill is:Rs.{total\_bill}")

**Output:**

****

**16. Delivery Service**

**Ask for the user's delivery location (as "urban" or "rural").**

**If the location is urban, display "Delivery available"; otherwise, display "Delivery not available."**

**Solution:**

location=input("Enter your location (urban/rural):").strip().lower()

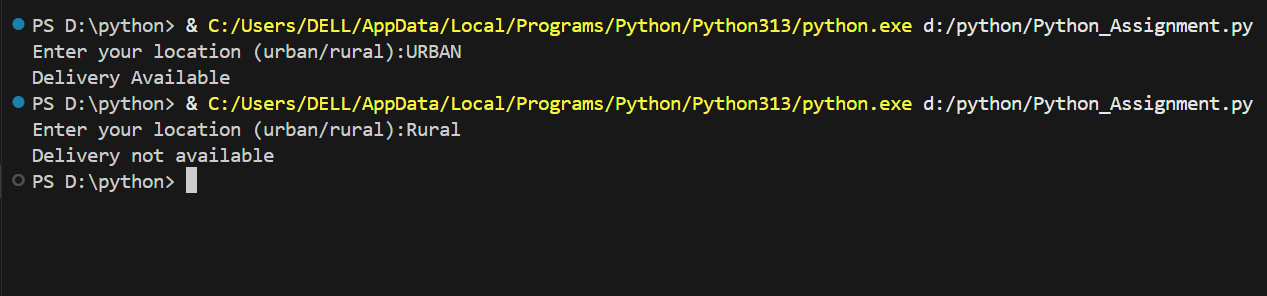
if location == "urban":

    print("Delivery Available")

else:

    print("Delivery not available")

**Output:**

****

**17. BMI Calculator**

**Take the user’s weight (in kg) and height (in meters) as input and calculate their BMI. If BMI < 18.5, display "Underweight"; 18.5–24.9, display "Normal"; otherwise, display "Overweight."**

**Solution:**

weight=float(input("enter your weight (in kgs):"))

height=float(input("enter your height (in meters):"))

bmi = weight / (height \*\* 2)

print(f"your BMI is:{bmi:.2f}")

if bmi < 18.5:

    print("Underweight")

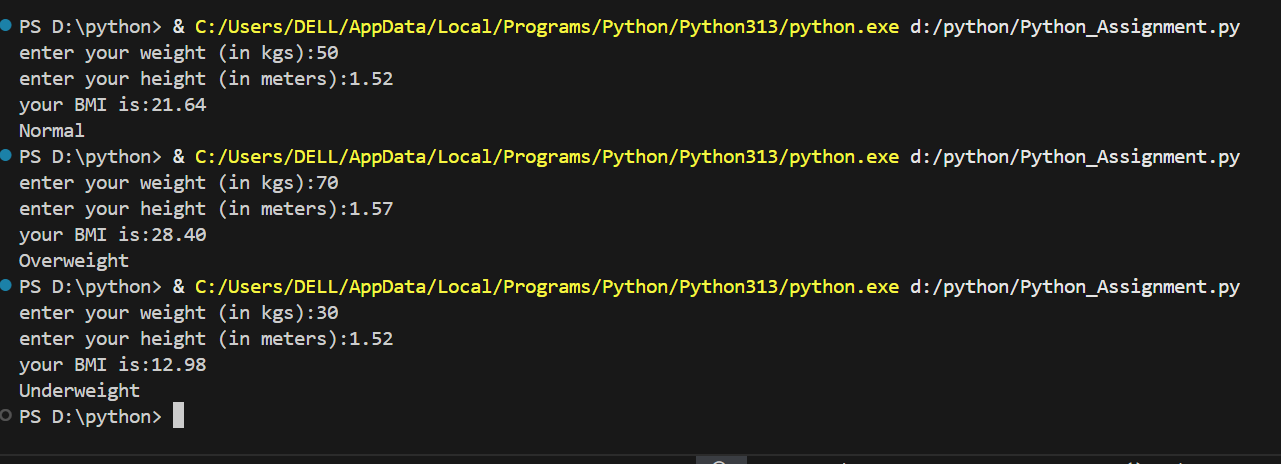
elif 18.5 <= bmi <=24.9 :

    print("Normal")

else:

    print("Overweight")

**Output:**

****

**18. Weekend Check**

**Ask the user to input a day of the week.**

**If it’s Saturday or Sunday, print "Weekend"; otherwise, print "Weekday."**

**Solution:**

days=input("enter a day of the week:").lower()

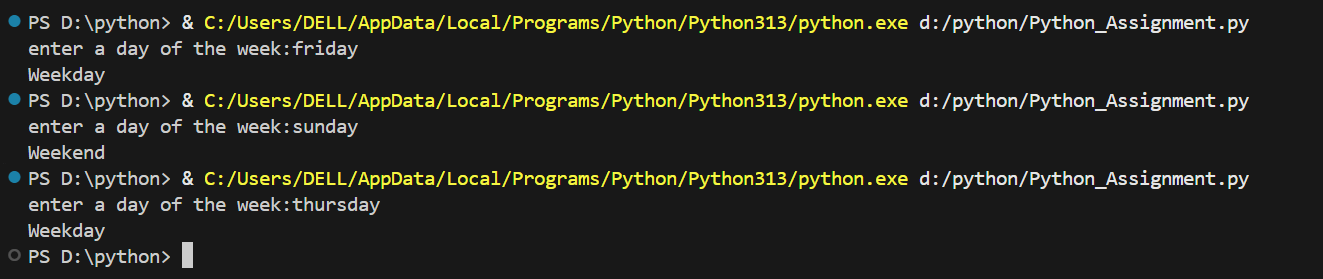
if days == "saturday" or days == "sunday":

    print("Weekend")

else:

    print("Weekday")

**Output:**

****

**19. Flight Fare Check**

**Take the age of a passenger as input.**

**If the passenger is below 12 or above 60, apply a 50% discount on the fare entered by the user; otherwise, charge the full fare.**

**Solution:**

age=int(input("Enter your age:"))

price=float(input("enter the flight price:"))

if age < 12 or age >60:

    discount=price \* 0.50

    total= price - discount

    print(f"A 50% discount of Rs.{discount} has been applied")

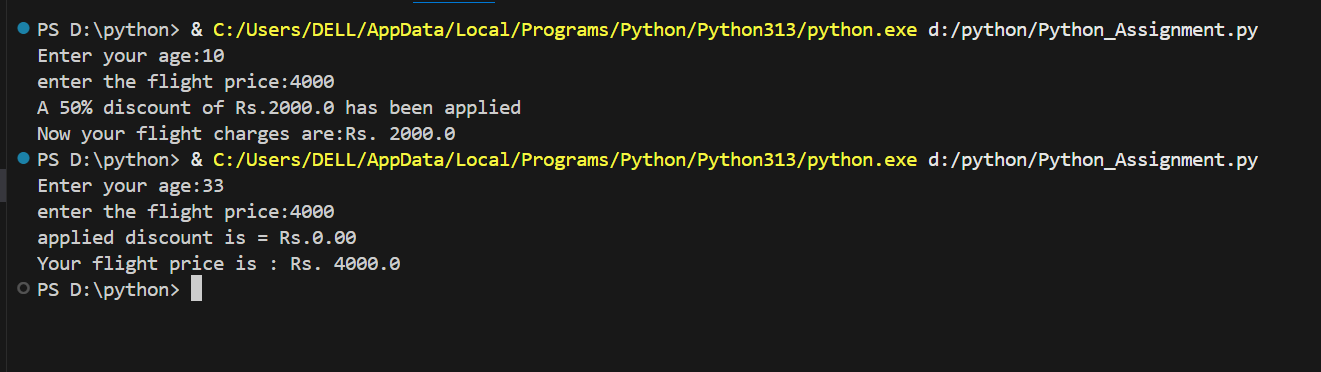
    print("Now your flight charges are:Rs.",total)

else:

    print("applied discount is = Rs.0.00")

    print ("Your flight price is : Rs.",price)

**Output:**

****

**20. Electricity Bill**

**Ask the user for the number of electricity units consumed.**

**If units are:**

**Less than or equal to 100: Charge ₹5 per unit.**

**Between 101 and 300: Charge ₹10 per unit.**

**Above 300: Charge ₹15 per unit.**

**Solution:**

unit=float(input("Enter the number of electricity units consumed:"))

if unit <=100:

    rate=5

    print("rate is:",rate)

elif 101 <= unit <= 300:

    rate=10

    print("rate is:",rate)

else:

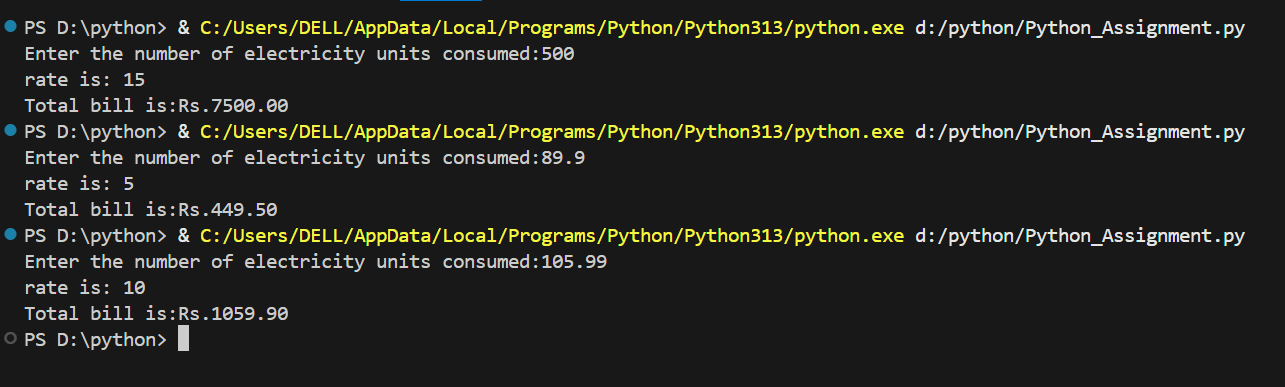
    rate=15

    print("rate is:",rate)

bill=unit \* rate

print(f"Total bill is:Rs.{bill:.2f}")

**Output:**

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