**Ques –**

Many people keep time using a 24-hour clock (11 is 11am and 23 is 11pm, 0 is midnight). If it is currently 13 and you set your alarm to go off in 50 hours, it will be 15 (3pm). Write a Python program to solve the general version of the above problem. Ask the user for the time now (in hours) and then ask for the number of hours to wait for the alarm. Your program should output what the time will be on a 24-hour clock when the alarm goes off.

**Challenges Faced –** Figuring out to convert the aggregated time in a 24 hr clock format. Initially I was doing a if else block wherein I was checking if the total time is > 24 then subtract it from 24 but that will not yield proper results if the time goes beyond 48 hrs.

Then I figured out the modulas operator that be in the range of 0-23 and can handle any delta.

**Code** –

def calculate\_tip(foodCharges):

    tip\_percent = 18

    tip\_amount = foodCharges \* (tip\_percent/100)

    return tip\_amount

#print(calculate\_tip(100.00))

def calculate\_sales\_tax(foodCharges):

    sales\_tax\_percent = 7

    sales\_tax = foodCharges \* (sales\_tax\_percent/100)

    return sales\_tax

#print(calculate\_sales\_tax(100.00))

def calculate\_total\_amount(foodCharges):

    total = foodCharges + calculate\_tip(foodCharges) + calculate\_sales\_tax(foodCharges)

    return total

food\_charge = float(input("Enter the total charges : $"))

print("\nBill Details\n--------------")

print(f"Food Bill      = ${food\_charge:.2f}")

print(f"Sales Tax (7%) = ${calculate\_sales\_tax(food\_charge):.2f}")

print(f"Tip (18%)      = ${calculate\_tip(food\_charge):.2f}")

print(f"--------------\nTotal Amount ${calculate\_total\_amount(food\_charge):.2f}\n")

**Execution –**

**A screen shot of a computer

Description automatically generated**