**Module 03: Critical Thinking Assignment: Creating Python Programs**

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CSC500-1: Principles of Programming

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**Module 03: Critical Thinking Assignment: Creating Python Programs**

**Part I: Python Pseudocode**

# Define the function to calculate the total meal cost

Define function total\_meals\_purchased:

# Ask the user for the base cost of the meal

PROMPT the user to enter the initial cost of the meal

STORE the input data as Meal\_cost (convert into decimal numbers)

# Calculate the tip and tax

CALCULATE the tip by setting tip = Meal\_cost \* 0.18

CALCULATE the tax by setting tax = Meal\_cost \* 0.07

CALCULATE total\_Meal\_cost as Meal\_cost + tip + tax

# DISPLAY a meal receipt:

Show Meal\_cost

Show tip amount

Show tax amount

Show total\_Meal\_cost

END the FUNCTION

CALL total\_meals\_purchased

DISPLAY a line separator ()

**Part II: Python Pseudocode**

# define the FUNCTION

FUNCTION AlamTime\_Calculation

#Ask the user to enter the current time in military time

PROMPT the user to input the current time in 24-hour format (0hr – 23hr)

STORE this value as current\_time

# Ask the user how many hours to wait for the alarm

PROMPT the user to enter how many hours to wait for the alarm

STORE this value as hours\_to\_wait

# Calculate the alarm time

CALCULATE alarm time as (current\_time + hours\_to\_wait ) divide by 24(hours)

#output the result

DISPLAY the alarm time in 24-hour format

End the FUNCTION

CALL AlarmTime\_Calculation

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**Source Code**

**# Part 01**  
# defined function  
def total\_meals\_purchased():  
 # collect user input  
 Meal\_cost= float(input("Please enter the meal cost here:$"))  
  
 #add the tip (18%) and tax(7%)  
 tip = Meal\_cost \* 0.18  
 tax = Meal\_cost \* 0.07  
 total\_Meal\_cost = Meal\_cost + tip + tax  
  
 # Shows the output for the input, tip, tax and total meal cost  
 print("\t ---- Meal Receipt ---")  
 print(f"Meal Charge ..............${Meal\_cost:.2f}")  
 print(f"+ 18% manual gratuity..... ${tip:.2f}")  
 print(f"+ 7% sales tax.............${tax:.2f}")  
 print(f"\nYour Total Meal Cost is...${total\_Meal\_cost:.2f}")  
  
#run the functon  
total\_meals\_purchased()  
  
print("\n ----------------------------------------------------------------------")  
  
#Part II:  
  
def AlarmTime\_Calculation():  
 # ask the user for the current time in 24hr format  
 current\_time = int(input("Enter the current Military Time (0 hr to 23 hr): "))  
  
 # Ask the user to input the amount of hours to wait for the alam  
 hours\_to\_wait = int(input("Now, enter how many hours you want to wait: "))  
  
 #process the calculations for the alarm to ring /24hrs  
 alarm = (current\_time+hours\_to\_wait) % 24  
  
 #print out the results  
 print(f"Your alarm will go off at {alarm}:00 on a 24 hr clock.")  
  
  
#run the function  
AlarmTime\_Calculation()

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**Screen Shot**

A screenshot of a computer

AI-generated content may be incorrect.

**GIT Hub Repository**

https://github.com/saraKhon/CTA003\_CSC500-01\_SaraKhon-.git