

CSC500 – Week 3 Assignment

Student: Cervonte Allen

Topics: Meal total (tip + tax) and 24-hour alarm time

Extended Description (Simple Words)

Two small programs. First: add 18% tip and 7% tax to a meal price and show the total. Second: add hours to the current hour on a 24-hour clock and wrap around 0–23. These help practice input, math, and printing results.

Part 1: Meal Total (Tip 18%, Tax 7%)

Pseudocode

```
START
ASK for food charge -> food
SET tip = food * 0.18
SET tax = food * 0.07
SET total = food + tip + tax
PRINT tip, tax, total
END
```

Python Source Code

```
# Week 3 - Part 1: Meal total with tip and tax
def main():
    print("Meal Total Calculator (Tip 18%, Tax 7%)")
    food = float(input("Enter charge for the food: "))
    tip = food * 0.18
    tax = food * 0.07
    total = food + tip + tax
    print(f"Tip (18%): ${tip:.2f}")
    print(f"Tax (7%): ${tax:.2f}")
    print(f"Total: ${total:.2f}")

if __name__ == "__main__":
    main()
```

Sample Run (text)

```
Meal Total Calculator (Tip 18%, Tax 7%)
Enter charge for the food: 50
Tip (18%): $9.00
Tax (7%): $3.50
Total: $62.50
```

Part 2: 24-hour Alarm

Pseudocode

```
START
ASK for current hour (0-23) -> now
ASK for hours to wait -> wait
SET future = (now + wait) MOD 24
PRINT future hour
```

END

Python Source Code

```
# Week 3 - Part 2: 24-hour alarm time
def main():
    print("24-hour Alarm Calculator")
    now = int(input("Enter current time (0-23): "))
    wait = int(input("Enter hours to wait: "))
    future = (now + wait) % 24
    print(f"Alarm will go off at: {future:02d}:00")

if __name__ == "__main__":
    main()
```

Sample Run (text)

```
24-hour Alarm Calculator
Enter current time (0-23): 13
Enter hours to wait: 50
Alarm will go off at: 15:00
```