

## While loop

# Assignment 1: Mobile Battery Drain

# Scenario: A mobile phone battery starts at a given percentage. Every hour, the battery drains by 5%. Display the battery level hour by hour until it reaches 0 or below.

```
battery = int(input("Enter Initial Battery Percentage: "))
battery -= 5
t = 1
while battery >= 0:
    print(f'Battery After {t} hour: {battery}%')
    t += 1
    battery -= 5
print("Battery drained")
```

# Assignment 2: ATM Cash Withdrawal

# Scenario: An ATM machine has a certain amount of cash. Each customer withdraws ₹500. Display remaining cash after each withdrawal until ATM is empty.

```
atm = int(input("Enter total cash in ATM: "))
while atm >= 0:
    print(f'Remaining Cash: {atm}₹')
    atm -= 500
print("ATM Empty")
```

# Assignment 3: Online Class Attendance

# Scenario: An online class starts with 0 students. Students join one by one. Display total students until class limit is reached.

```
max_student = int(input("Enter Maximum Class Strength: "))
i = 1
while max_student >= i:
    print(f'Student Joined: {i}')
    i += 1
print("Class Full")
```

# Assignment 4: Daily Water Intake Tracker

# Scenario: A person drinks 250 ml water every time. Track water intake until the daily goal is completed.

```
water = int(input("Enter daily water goal in ml: "))
increment = 250
while water >= increment:
    print(f'Water Consumed: {increment}ml')
    increment += 250
print("Goal Achieved")
```

# Assignment 5: Website Login Attempts

# Scenario: A user has limited login attempts. Each wrong attempt reduces one chance. Display remaining attempts.

```
Max_attempts = int(input("Enter Maximum Attempts: "))
Max_attempts -= 1
while Max_attempts >= 0:
    print(f'Attempts Left: {Max_attempts}')
    Max_attempts -= 1
print("Account Locked")
```

# Assignment 6: Elevator Floor Counter

# Scenario: An elevator starts at ground floor (0) and goes up one floor at a time until it reaches the destination floor.

```
floor = int(input("Enter destination floor: "))
destination = 1
while destination <= floor:
    print(f'Current Floor: {destination}')
    destination += 1
print("Reached destination")
```

# Assignment 7: Monthly Savings Tracker

# Scenario: A person saves ₹2000 every month. Track savings until the target amount is reached.

```
target = int(input("Enter saving target: "))
saving = 2000
while saving <= target:
    print(f'Total Saving: {saving}')
    saving += 2000
print("Target Achived")
```

# Assignment 8: Bus Ticket Counter

# Scenario: A bus has limited seats. One passenger boards at a time. Display remaining seats.

```
seats = int(input("Enter Total Seats: "))
seats -= 1
while seats >= 0:
    print(f'Seats Remaining: {seats}')
    seats -= 1
print("Bus Full")
```

# Assignment 9: Countdown for Exam

# Scenario: An exam starts in N seconds. Display countdown until exam begins.

```
time = int(input("Enter countdown time: "))
while time >= 1:
    print(f'Time Left: {time}')
    time -= 1
print("...\nExam Started")
```

# Assignment 10: Shopping Cart Budget

# Scenario: A person has a fixed budget. Each item costs ₹100. Display remaining budget after each purchase.

```
budget = int(input("Enter Shopping budget: "))
budget -= 100
while budget >= 0:
    print(f'Remaining Budget: {budget}')
    budget -= 100
print("Budget Exhausted")
```