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.
Condition:
Use only one while loop
Battery reduces by 5 each iteration
Input Format:
Enter initial battery percentage
Output Format:
Battery after 1 hour: 95%
Battery after 2 hours: 90%

...
Battery drained
Sample Input:
20
Sample Output:
Battery after 1 hour: 15%
Battery after 2 hours: 10%
Battery after 3 hours: 5%
Battery after 4 hours: 0%
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.
Condition:
Withdrawal amount is fixed (₹500)
Use a single while loop
Input Format:
Enter total cash in ATM
Output Format:
Remaining cash: XXXX
ATM empty
Sample Input:
2000
Sample Output:

Remaining cash: 1500
Remaining cash: 1000
Remaining cash: 500
Remaining cash: 0
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.
Condition:
Students join one at a time
Use a single while loop
Input Format:
Enter maximum class strength
Output Format:
Student joined: 1
Student joined: 2
...
Class full
Sample Input:
3
Sample Output:
Student joined: 1
Student joined: 2
Student joined: 3
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.
Condition:
Water intake is constant
Use one while loop
Input Format:
Enter daily water goal in ml
Output Format:
Water consumed: XXX ml
Goal achieved

Sample Input:
1000
Sample Output:
Water consumed: 250 ml
Water consumed: 500 ml
Water consumed: 750 ml
Water consumed: 1000 ml
Goal achieved

Assignment 5: Website Login Attempts
Scenario:
A user has limited login attempts. Each wrong attempt reduces one chance. Display remaining attempts.
Condition:
Max attempts = user input
Use a single while loop
Input Format:
Enter number of login attempts
Output Format:
Attempts left: X
Account locked
Sample Input:
3
Sample Output:
Attempts left: 2
Attempts left: 1
Attempts left: 0
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.
Condition:
Move one floor per loop
Use only one while loop
Input Format:
Enter destination floor
Output Format:
Current floor: X

Reached destination
Sample Input:
4
Sample Output:
Current floor: 1
Current floor: 2
Current floor: 3
Current floor: 4
Reached destination

Assignment 7: Monthly Savings Tracker
Scenario:
A person saves ₹2000 every month. Track savings until the target amount is reached.
Condition:
Monthly saving is fixed
Single while loop
Input Format:
Enter savings target
Output Format:
Total savings: XXXX
Target achieved
Sample Input:
6000
Sample Output:
Total savings: 2000
Total savings: 4000
Total savings: 6000
Target achieved

Assignment 8: Bus Ticket Counter
Scenario:
A bus has limited seats. One passenger boards at a time. Display remaining seats.
Condition:
One passenger per iteration
Use only one while loop
Input Format:
Enter total seats
Output Format:

Seats remaining: X
Bus full
Sample Input:
2
Sample Output:
Seats remaining: 1
Seats remaining: 0
Bus full

Assignment 9: Countdown for Exam
Scenario:
An exam starts in N seconds. Display countdown until exam begins.
Condition:
Countdown decreases by 1
Single while loop
Input Format:
Enter countdown time
Output Format:
Time left: X
Exam started
Sample Input:
3
Sample Output:
Time left: 3
Time left: 2
Time left: 1
Exam started

Assignment 10: Shopping Cart Budget
Scenario:
A person has a fixed budget. Each item costs ₹100. Display remaining budget after each purchase.
Condition:
Item cost fixed
Use a single while loop
Input Format:
Enter shopping budget
Output Format:
Remaining budget: XXX
Budget exhausted

Sample Input:
300
Sample Output:
Remaining budget: 200
Remaining budget: 100
Remaining budget: 0
Budget exhausted