1. **Countdown Timer with Alerts**

Scenario:
You are building a simple countdown timer for a productivity app that reminds users every 5 minutes.

Instructions:

1. Ask the user to enter the **total countdown time in minutes** (e.g., 20).
2. Use a while loop to:
    - Simulate the countdown, reducing time by 1 minute in each iteration.
    - Every 5 minutes, display "Reminder: Stay focused!".
3. When the countdown reaches 0, display "Time's up! Take a break.".

Bonus: Use a do...while to let the user choose to start another timer or exit.

2. Investment Growth Estimator

Scenario:
A user invests money, and it grows by a fixed **interest rate per year**.

Instructions:

1. Ask the user to enter:
    - Initial investment amount
    - Annual interest rate (as a %)
    - Target amount they want to reach
2. Use a while loop to:
    - Calculate yearly growth
    - Add interest to the investment
    - Count how many **years it takes** to reach or exceed the target

3. **Secure Login System with Lockout and Password Change Option**

Scenario:
A system allows users to log in with a password, but enforces security features.

Instructions:

1. Set a predefined password (e.g., "admin123").
2. Allow the user to enter their password using a while loop.

3. After **3 incorrect attempts**, lock the system and display:
   "Account locked. Too many failed attempts."
4. If login is successful:
    - Display: "Access granted."
    - Ask if the user wants to change their password (y/n).
    - If yes:
        - Prompt for new password.
        - Ensure new password is **at least 6 characters**.
        - Confirm by asking them to re-enter it.
        - If both match, update the password and display "Password updated successfully."
        - If not, deny the change.

FNB Bank Ticket Issuing System

Scenario:
FNB Bank uses an automated ticketing system to manage customer queues. Each customer is issued a ticket depending on the type of service they need.

Requirements:

1. There are **three types of services**:
    - 'A' – General Enquiries
    - 'B' – Loan Services
    - 'C' – Account Opening
2. The system should:
    - Allow multiple customers to enter.
    - Ask each customer to enter the **service code** (A, B, or C).
    - Assign a **ticket number** starting from 1001 and incrementing by 1 for each customer.
    - Count how many customers chose each service.
    - Allow issuing tickets until the **maximum of 20 tickets** is reached.
3. Use a do...while loop to continue issuing tickets until the max is reached or the user enters 'N' to stop.
4. After ticketing ends, display:
    - Total tickets issued.
    - Total for each service type.

- First and last ticket numbers.

5. Use **arrays**, do...while or while, and **basic input validation**.

Sample Output:

Welcome to FNB Bank Ticketing System

Enter service code (A - General, B - Loans, C - Account Opening): A

Ticket A issued: 1001

Enter another customer? (Y/N): Y

Enter service code (A - General, B - Loans, C - Account Opening): B

Ticket B issued: 1002

Enter another customer? (Y/N): N

--- Summary ---

Total tickets issued: 5

General Enquiries: 2

Loan Services: 2

Account Opening: 1

First ticket number: 1001

Last ticket number: 1005