Pseudocode Confidence Builder Worksheet

Time: 60 to 90 minutes

Goal: Build confidence writing clear pseudocode with input, validation, selection, and output

Rule: Use the commands and style from the **Pseudocode Guide** in your folder.

What you are practising

By the end, you should be able to:

- read input values safely
- validate input and stop when it is wrong
- use IF and ELSE IF to make decisions
- output clear messages
- write pseudocode that another student could follow

Before you start

In your `docs/pseudocode-practice.md` file, add these headings:

- Task 1: Username Checker
- Task 2: Stock Level Alert
- Task 3: Maintenance Due Checker
- Task 4: Priority Classifier

Write your pseudocode under each heading.

Task 1: Username Checker

Focus: Input, validation, and output

What the program must do

Ask the user to enter a username.

Rules:

- Username must not be blank
- Username must be at least 4 characters
- Username must be no more than 12 characters

Outputs:

- If invalid, output a clear error message and stop
- If valid, output “Username accepted”

Your pseudocode must include

- INPUT for username
- at least 2 IF checks
- a final success output

Task 2: Stock Level Alert

Focus: Selection with IF, ELSE IF, ELSE

What the program must do

Ask the user to enter a stock level number.

Rules:

- Stock level must be a number and 0 or more
- If stock is 0 output “Out of stock”
- If stock is 1 to 5 output “Low stock”
- If stock is 6 to 20 output “Stock OK”
- If stock is over 20 output “High stock”

Outputs:

- Always output exactly one status message

Your pseudocode must include

- INPUT for stockLevel
- validation for negative or invalid
- selection using IF, ELSE IF, ELSE
- one final output

Task 3: Maintenance Due Checker

Focus: Using thresholds and “due soon”

What the program must do

Ask the user for:

- daysSinceLastService (number)
- serviceFrequency (weekly, monthly)

Rules:

- daysSinceLastService must be 0 or more
- serviceFrequency must be chosen
- Weekly due at 7 days and due soon at 5 or 6
- Monthly due at 30 days and due soon at 28 or 29

Outputs:

- “Due now”
- “Due soon”
- “Not due yet”
- or a clear error message

Your pseudocode must include

- INPUT for two values
- validation for both
- selection for weekly OR monthly

- due soon logic
- exactly one final output

Task 4: Priority Classifier

Focus: Combining conditions and adding a warning message

What the program must do

Ask the user for:

- condition (Good, Worn, Critical)
- daysSinceLastService (number)
- inUse (Yes or No)

Rules:

- condition must be chosen
- days must be 0 or more
- Priority is High if condition is Critical OR days >= 60
- Priority is Medium if condition is Worn OR days is 30 to 59
- Priority is Low if condition is Good AND days < 30

Extra rule:

- If inUse is Yes, output must include “Warning: Machine in use”

Outputs:

- One final output message that includes:
  - Priority level
  - Warning if needed

Your pseudocode must include

- validation
- selection logic using IF and ELSE IF
- one final output message

Self-check (complete at the end)

Answer in full sentences under a heading called **Reflection**:

1. Which task felt easiest and why?
2. Which task felt hardest and why?
3. What is one validation rule that stopped a user mistake?
4. What is one improvement you would make to your pseudocode layout?