2 Identifying if a Number is Positive or Negative

Title: Creating an Algorithm to Check if a Number is Positive or Negative Using General Language, Pseudocode, and Flowchart

Description: In this scenario, you will create an algorithm to check if a number is positive or negative, introducing the concept of conditional logic. You'll write the algorithm in simple language, convert it into pseudocode, and visually represent it using a flowchart.

Purpose: The purpose of this activity is to help you understand how to Practice using conditional statements in pseudocode to make simple decisions. Develop skills in creating a flowchart that visually represents conditional logic, which is a foundational concept in coding and programming.

Steps:

1. **Understand the Task:**
    - The task is to read a number from the user and determine if it's positive or negative.

2. **Writing the Algorithm in General Language (English):**
    - **Step 1**: Start
    - **Step 2**: Read or input a number (Number).
    - **Step 3**: Check if the number is greater than 0.
        - If yes, the number is positive.
    - **Step 4**: If the number is not greater than 0, check if it is less than 0.
        - If yes, the number is negative.
    - **Step 5**: If the number is neither greater than nor less than 0, it must be 0.
    - **Step 6**: Display whether the number is positive, negative, or zero.
    - **Step 7**: End.

3. **Writing the Algorithm in Pseudocode:**
    - Now, You will translate these steps into pseudocode, using basic coding structures to represent conditional checks:

```
START
    INPUT Number
    IF Number > 0 THEN
        DISPLAY "Positive"
    ELSE IF Number < 0 THEN
        DISPLAY "Negative"
    ELSE
        DISPLAY "Zero"
    ENDIF
END
```

4. **Drawing the Flowchart:**

   You will now create a flowchart to visualize this logic, using symbols.
    - **Start**: Begin the flowchart with a "Start" symbol.
    - **Input Number**: Use an "Input" symbol to prompt for a number.
    - **Decision**: Use a "Decision" symbol to check if the number is greater than 0.
        - **If True**: Display "Positive."
    - **Second Decision**: If the first check is false, use another "Decision" symbol to check if the number is less than 0.
        - **If True**: Display "Negative."
    - **Else**: If neither condition is met, the number must be zero, so display "Zero."
    - **End**: Conclude the flowchart with an "End" symbol.

Flowchart Representation