

Step 1: Start

Step 2: **Initialize Variables**

2.1: Define `MAX` as 100.

2.2: Declare `message[MAX]`, `pt[MAX]`, and `ct[MAX]` as character arrays.

2.3: Declare `len` as 0 (to track valid characters).

2.4: Declare `key`, `pi`, and `ci` as integers.

Step 3: **Input the Message and Key**

3.1: Prompt "Enter a message" and store input in `message`.

3.2: Prompt "Enter a key" and store input in `key`.

Step 4: **Process Message**

4.1: For each character in `message`,

If alphabetic, convert to uppercase and store in `pt[len]`, then increment `len`.

Step 5: **Encrypt Message:**

5.1: For each character in `pt` (up to `len`):

    Compute `pi` as the position of `pt[i]` in the alphabet.

    Calculate `ci = (pi + key) % 26`.

    Convert `ci` back to a character and store in `ct[i]`.

Step 6: **Output Encrypted Message:**

6.1: Print "The encrypted message is:" followed by `ct`.

Step 7: Stop