Guide to writing Pseudocode

Pseudocode Command	Explanation	Example(s)	
←	In Pseudocode the ← symbol is often used instead of = when assigning values to variables	name ← 'Alice' age ← 17 x ← a + b x ← (a + b) / 3 x ← x + 1	**INPUT** ← name **OUTPUT** "Hello" + name

BEGIN	To begin a program
	 Used instead of (START)
		BEGIN
		    Input height of rectangle
		    Input width of rectangle
		    CALCULATE area as height * width
		 END	

END	To end a program Used instead of (STOP)		
INPUT	When the user is required to type something in or click a button	**INPUT** num1 **INPUT** num2 **INPUT** num3 AVERAGE = (num1 + num2 + num3) / 3 **OUTPUT** AVERAGE	

OUTPUT	When a message or result is printed or displayed to the user
	 Used instead of **PRINT**
		IF age is greater than or equal to 65 **THEN**
		    OUTPUT "Very Old"
		 ELSEIF age is greater than or equal to 55 **THEN**
		    OUTPUT "Quite Old"	

IF
 ELSEIF
 ELSE
	To make decisions	**ELSEIF** age is greater than or equal to 45 **THEN**
		    OUTPUT "Getting Old"
		 ELSE
		    OUTPUT "Still Young"
		 END IF	

FOR (loops)	To repeat code using a <u>counter</u> to control the number of iterations	**FOR** counter **FROM** 0 to 9 **DO**
		    total = total * counter
		    OUTPUT total
		 END FOR	

WHILE (loops)	To repeat code using a <u>condition</u> to control the number of iterations	**WHILE** lives **greater than** 0 **DO**
		    OUTPUT "Still playing game"
		    lives = lives − 1
		 END WHILE	

Arrays/Lists	Square brackets **[ ]** are used to:
	 • Create arrays/lists
	 • Reference the position of items
	
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	 A **FOR** loop can be used to iterate through items in a list.
	
	 ⓘ *Works the same characters in a string!* ⓘ
		Students = **[**'Tony', 'Roger', 'Hannah', 'Jim'**]**
		
		 OUTPUT (MyList **[2]**) ⓘ *Outputs 'Hannah'*
		
		 --- 	
		
		 INPUT name
		
		 FOR counter **FROM** 0 to **LENGTH**(Students) **DO**
		    IF MyList**[counter] =** name **THEN**
		       OUTPUT name + ' is at position ' + counter	

Functions/ Sub-Routines	Technically, a **FUNCTION** is supposed to return a value, whereas a **SUB ROUTINE** isn't.
	
	Therefore use these two terms as and when appropriate.
		FUNCTION addition()
		   INPUT num1
		   INPUT num2
		   total ← num1 + num2
		   RETURN total
		END FUNCTION **CALL** addition()

READ RECORD	To read data from a text file or database	**READ** MyFile.txt **Record**
WRITE	To read data from a text file or database	**WRITE** MyFile.txt Answer1, Answer2, "abc123"