Running Total with Fixed Loop (For)

Pseudocode	Flowchart	Structured Diagram	Python Code

1. Set total TO 0
2. Fixed Loop – repeat 20 times
   3. Ask user for amountRaised
   4. total = total + amountRaised
5. End Loop
6. Print total to Display
			``python
			total = 0
			
			for counter in range (0, 20):
			    amount = int(input("Enter amount raised"))
			    total = total + amount
			
			print(total)
			``

Running Total with Conditional Loop (While)

Pseudocode	Flowchart	Structured Diagram	Python Code

1. SET total TO 0
2. SET NoOfPupils TO 0
3. Conditional Loop - WHILE NoOfPupils < 20
   4. Ask user for amountRaised
   5. total = total + amountRaised
   6. Add 1 to NoOfPupils
7. End Loop
8. Print total to Display
			``python
			total = 0
			noOfPupils = 0
			
			while noOfPupils < 20:
			amount = int(input("Enter amount"))
			total = total + amount
			noOfPupils = noOfPupils + 1
			print(total)
			``

Standard Algorithms – Design to Implementation

Input Validation

Pseudocode	Flowchart	Structured Diagram	Python Code

1. Ask user to enter age
 	
2. Conditional Loop - WHILE age < 0 OR age > 120
 	
   3. Display error message - Invalid
 	
   4. Ask user to re-enter age
 	
5. End Loop
			``python
			age = int(input("Enter your age: ")
			
			while age < 0 or age > 120:
			    print("Invalid age – enter 0-99 only")
			    age = int(input("Enter your age: ")
			``

Traversing a 1D Array

Pseudocode	Flowchart	Structured Diagram	Python Code

1. SET names[] TO array of strings
 	
2. FOR loop = 1 to 5
 	
   3. Ask user to enter name
 	
   4. STORE name in array[]
 	
5. END LOOP
 	
6. FOR each item in the array
 	
   7. SEND name TO DISPLAY
 	
8. END LOOP
			``python
			names = [""]*5
			
			for counter in range(0, 5):
			    names[counter] = input("Enter the pupil's name.")
			
			for counter in range(0, len(names)):
			    print("Pupil name: " + names[counter])
			``