**Task 1: Writing the ARM Assembly Program**

**Task Description:**  **Find the minimum and maximum elements in an array**

Write a function that finds the minimum and maximum elements in a user-defined array of integers and stores the results to the registers x3 – minimum, x4-maximum. The function should take a pointer to the beginning of the array and its size as arguments. Use a loop to iterate through the array elements and update the minimum and maximum values accordingly. After function return, store the results to the memory address of *min* and *max*.

.global \_start

.section .data

array: .quad 5, 1, 9, 4, 7

min: .quad 0

max: .quad 0

\_start:

//your code

end\_prog:

mov x8, #93 // Exit syscall number

mov x0, #0 // Exit status

SVC #0

# steps of compilation in assembly

# step-1: compile

**as -o filename.o filename.s**

# step-2: Link

**ld -o programname filename.o**

# step-3: run the compiled program

**./programname**

**Task 2: If there is no error in your code, now use print function of C with gcc, to print the results.**