Step 5:

Text

Description automatically generated

Step 7:

# Compute several Fibonacci numbers and put in array, then print

.data

prompt1: .asciiz "Enter Number 1: "

prompt2: .asciiz "Enter Number 2: "

answer: .asciiz "Answer: "

separator: .asciiz "-------------------------------"

# Program Memory Section

.text

.globl main

main:

la $a0, separator # load address of prompt1 for syscall

li $v0, 4 # specify Print String service

syscall # print the prompt string

li $v0, 11 # Setup print char syscall

addi $a0, $zero, 10 # Load newline ascii char

syscall # execute syscall

la $a0, prompt1 # load address of prompt1 for syscall

li $v0, 4 # specify Print String service

syscall # print the prompt string

li $v0, 5 # specify Read Integer service

syscall # Read the number. After this instruction, the number read is in $v0.

add $t0, $v0, $zero # Move read integer to $t0

li $v0, 11 # Setup print car syscall

addi $a0, $zero, 10 # Load newline ascii char

syscall # execute syscall

la $a0, prompt2 # load address of prompt2 for syscall

li $v0, 4 # specify Print String service

syscall # print the prompt string

li $v0, 5 # specify Read Integer service

syscall # Read the number. After this instruction, the number read is in $v0.

add $t1, $v0, $zero # Move read integer to $t1

add $t2, $t1, $t0 # Perform the addition and put result in $t2

li $v0, 11 # Setup print char syscall

addi $a0, $zero, 10 # Load newline ascii char

syscall # execute syscall

#Print Answer

la $a0, answer # load address of answer for syscall

li $v0, 4 # specify Print String service

syscall # print the prompt string

#Print value1

li $v0, 1 # Load print int for syscall

add $a0, $zero, $t0 # Load argument for print int

syscall # Execute print int

#Print Space

li $v0, 11 # Load print char for syscall

addi $a0, $zero, 32 # Load ascii char for space (32) into argument

syscall # execute syscall

#Print +

li $v0, 11 # Load print char for syscall

addi $a0, $zero, 43 # Load ASCII char for + (43) into argument

syscall # Execute syscall

#Print Space

li $v0, 11 # Load print char for syscall

addi $a0, $zero, 32 # Load ascii char for space (32) into argument

syscall # execute

li $v0, 1 # Load print int for syscall

add $a0, $zero, $t1 # Load argument for print int

syscall # Execute print int

#Print Space

li $v0, 11 # Load print char for syscall

addi $a0, $zero, 32 # Load ascii char for space (32) into argument

syscall # execute syscall

#Print =

li $v0, 11 # Load print char for syscall

addi $a0, $zero, 61 # Load ASCII char for = (61) into argument

syscall # Execute syscall

#Print Space

li $v0, 11 # Load print char for syscall

addi $a0, $zero, 32 # Load ascii char for space (32) into argument

syscall # execute syscall

li $v0, 1 # Load print int for syscall

add $a0, $zero, $t2 # Load int into argumen t

syscall # Execute syscall

li $v0, 11 # Setup print char syscall

addi $a0, $zero, 10 # Load newline ascii char

syscall # execute syscall

j main # Jump to beginning

li $v0, 10 # Setup Exit Syscall (Should never run)

syscall # Execute syscall (Should never run)