Roll: B210305006 (Ahmed Bin Mustafa)

Problem 1: Write a program to take some numbers using an array as input and show the array as output

.data

array: .space 2000 #2000 bytes

space: .asciiz " "

howMany: .asciiz "Enter the number of integer less than 500: "

inputMsg: .asciiz "Enter the element of array :-\n"

outputMsg: .asciiz "Array: "

.text

main:

#print the string stored in howMany

li $v0, 4

la $a0, howMany

syscall

#Define the number of integers that should be input

li $v0, 5

syscall

move $s1, $v0 #s1=5 integers

mul $s1,$s1,4 # s1=20 bytes

#print the string stored in howMany

li $v0, 4

la $a0, inputMsg

syscall

addi $s0, $zero, 0

inputLoop:

beq $s0, $s1, output

#take input form user

li $v0, 5

syscall

move $t1, $v0

#store value in array

sw $t1, array($s0) # array[0]=$t1 0,4,8,12,16,20

addi $s0, $s0,4

j inputLoop

output:

li $v0, 4

la $a0, outputMsg

syscall

addi $s0,$zero,0

printLoop:

beq $s0, $s1, exit

lw $t4, array($s0)

#print the instant array position value

li $v0, 1 #printing an integer

move $a0, $t4

syscall

#print a space after a number

li $v0, 4

la $a0, space

syscall

#increment like i++

addi, $s0, $s0,4

j printLoop

exit:

li $v0, 10

syscall

Roll: B210305016 (Maisha Binte Monir)

Problem 2: Print the even numbers from an array.

.data

msg: .asciiz "Enter the element of array\n"

array: .space 40

comma: .asciiz ", "

EvenMsg: .asciiz "Even numbers are: "

.text

main:

li $s2, 2 #set $s2= 2.

li $v0, 4

la $a0, msg

syscall

addi $s0, $zero, 0

loop1:

beq $s0, 40, print

li $v0, 5 #take array elements from user.

syscall

move $t1, $v0

sw $t1, array($s0)

addi $s0, $s0,4

j loop1

print:

li $v0, 4

la $a0, EvenMsg

syscall

addi $s0, $zero, 0

loop2:

beq $s0, 40, exit

lw $s3, array($s0)

addi $s0, $s0, 4

div $s3, $s2

mfhi $s4

beqz $s4, even

j loop2

even:

li $v0, 1

move $a0, $s3

syscall

beq $s0, 40, exit

li $v0, 4

la $a0, comma

syscall

j loop

exit:

li $v0, 10

syscall