Báo cáo thực hành tuần 5

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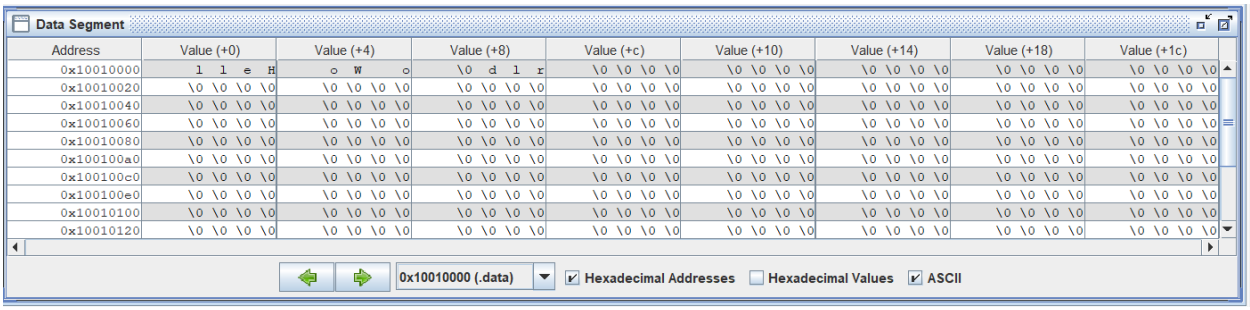
Bài 1:

```
#Laboratory Exercise 5, Home Assignment 1
.data
test: .asciiz "Hello World"
.text
        li   $v0, 4
        la   $a0, test
        syscall
```

Kết quả:



Bài 2:

Code:

.data

message1: .asciiz "\nThe sum of("

message2: .asciiz ") and ("

message3: .asciiz ") is ("

message4: .asciiz ")\n("

```
.text
        li      $s0, 26             #s0 = 26
        li      $s1, 7              #s1 = 7
        add     $s2, $s0, $s1       #s2 = s0 + s1

        li      $v0, 4
        la      $a0, message1
        syscall

        li      $v0, 1
        add     $a0, $0, $s0
        syscall

        li      $v0, 4
        la      $a0, message2
        syscall

        li      $v0, 1
        add     $a0, $0, $s1
        syscall

        li      $v0, 4
```

```
    la      $a0, message3
    syscall

    li      $v0, 1
    add     $a0, $0, $s2
    syscall

    li      $v0, 4
    la      $a0, message4
    syscall
```

*Kết quả:

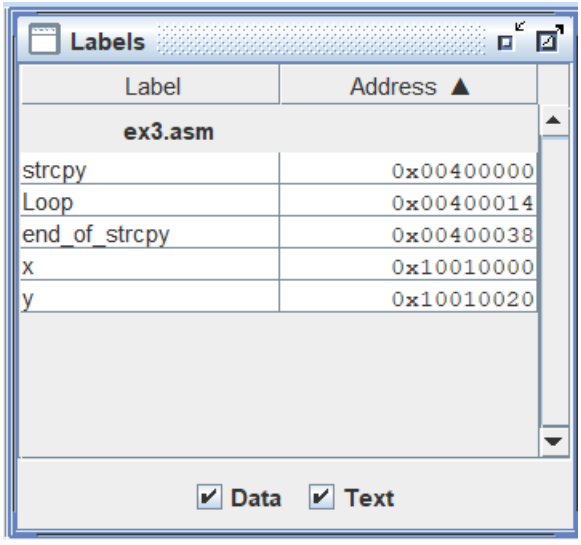
```
The sum of(26) and (7) is (33)
(
-- program is finished running (dropped off bottom) --
```

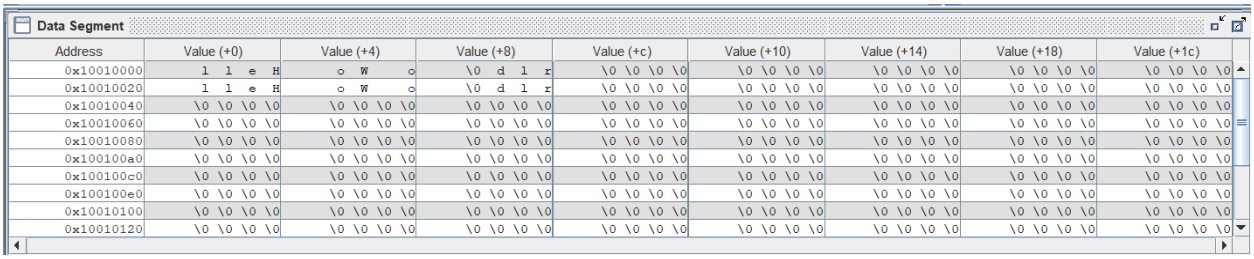
Bài 3:

```
.data
    x: .space 32                #khoi tao chuoi dich x, rong
    y: .asciiz "Hello World"    #chuoi nguon y
.text
strcpy:
    la      $a0, x
    la      $a1, y
    add     $s0,$zero,$zero     # i = 0
```

```
Loop:
        add   $t1,$s0,$a1              # t1 = i + y[0] (dia chi y[i])
        lb    $t2, 0($t1)         # t2 = gia tri cua $t1 = y[i]
        add   $t3, $s0, $a0              # t3 = i + x[0] (dia chi x[i])
        sb    $t2,0($t3)          # x[i]= t2 = y[i]
        beq   $t2,$zero,end_of_strcpy     #if y[i] = 0, exit
        nop
        addi  $s0,$s0,1                  #i=i+1
        j     Loop
        nop
end_of_strcpy:
```

*Kết quả:





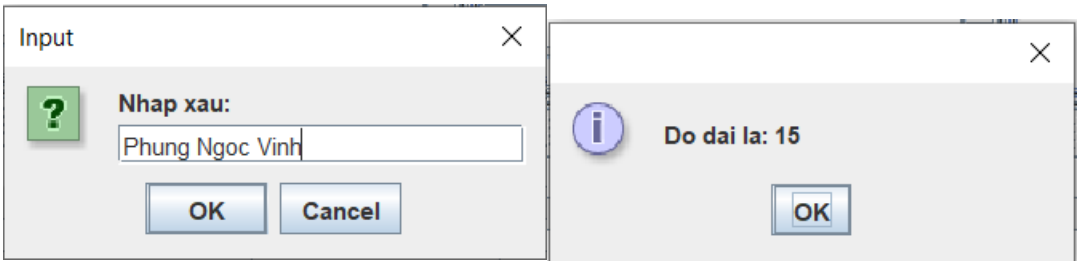
Bài 4:

Code:

```
.data
        string: .space 50
        Message1: .asciiz "Nhap xau: "
        Message2: .asciiz "Do dai la: "
.text
main:
nhap_chuoi:
        li $v0, 54
        la $a0, Message1
        la $a1, string
        li $a2, 50
        syscall
get_length:
        la  $a0, string                 # a0 = dia chi string[0]
        xor $v0, $zero, $zero           # length = 0
        xor $t0, $zero, $zero           # i = 0
```

```
kt_kitu:
        add  $t1, $a0, $t0          # t1 = i + string[0] (dia chi string[i])
        lb   $t2, 0($t1)            # t2 = string[i]
        beq  $t2,$zero,ket_thuc         # kiem tra ki tu NULL
        addi $v0, $v0, 1            # length = length+1
        addi $t0, $t0, 1            # i = i + 1
        j    kt_kitu
ket_thuc:
end_of_get_length:
        sub $v0, $v0, 1
ket_qua:
        add $a1, $zero, $v0
        li $v0, 56
        la $a0, Message2
        syscall
```

*Kết quả:



Bài 5:

Code:

```
#Laboratory Exercise 5, Home Assignment 5
.data
	mes: .asciiz "Enter a character (press Enter to end): "
	str: .space 20
.text
init:
	add $s0, $zero, $zero
	la $s1, str

	li $v0, 4
	la $a0, mes
	syscall
read:
	li $v0, 12			# input character
	la $a0, mes
	syscall
	nop
```

```
check:
	beq $v0, 10, print	# neu input = enter: nhay den print
	add $t1, $s0, $s1	# t1 = string[i]
	sb  $v0, 0($t1)		# v0 = t1 = string[i]
	addi $s0, $s0, 1	# i = i + 1
	slti $t0, $s0, 20
	beq $t0, $zero, print	# if i = 20: nhay den print
	j read
print:
	slt $t0, $s0, $zero	# for $s0 -> 0
	bne $t0, $zero, exit
	add $t1, $s0, $s1	# t1 = dia chi string[i]
	lb $t2, 0($t1)		# t2 = string[i]
	li $v0, 11
	add $a0, $zero, $t2		# print    t2
	syscall
	addi $s0, $s0, -1	# i = i - 1
	j print
```

exit:

*Kết quả:

```
Enter a character (press Enter to end): phung ngoc vinh 26711762 hniv cogn gnuhp
-- program is finished running (dropped off bottom) --
```