

Báo cáo thực hành - Tuần 5

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Bài 1:

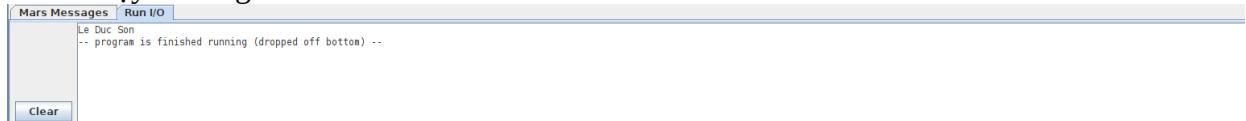
- Source code:

```

1 .data
2 test: .asciiz "Le Duc Son"
3 .text
4 li $v0, 4
5 la $a0, test
6 syscall

```

- Chạy chương trình:



Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010020	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010040	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010060	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010080	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x100100a0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x100100c0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x100100e0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0

Bài 2:

- Source code:

```

1 .data
2 theSum: .asciiz "The sum of "
3 And: .asciiz " and "
4 is: .asciiz " is "
5 .text
6 addi $s0, $zero, 5 #gan $s0 = 5
7 addi $s1, $zero, 7 #gan $s1 = 7
8 add $t0, $s0, $s1 #$t0 = $s0 + $s1
9
10 li $v0, 4      # $v0 = 4 -> in ra chuoi theSum
11 la $a0, theSum
12 syscall        # goi ham
13
14 li $v0, 1      # $v0 = 1 -> in ra so $s0
15 la $a0, 0($s0)
16 syscall        #goi ham
17
18 li $v0, 4      # $v0 = 4-> in ra chuoi And
19 la $a0, And
20 syscall        #goi ham
21
22 li $v0, 1      # $v0 = 1 -> in ra so $s1
23 la $a0, 0($s1)
24 syscall        #goi ham
25
26 li $v0, 4      # $v0 = 4 -> in ra chuoi is
27 la $a0, is
28 syscall        #goi ham
29
30 li $v0, 1      # $v0 = 1 -> in ra so $t0 ($t0 = $s0 + $s1)
31 la $a0, 0($t0)
32 syscall        #goi ham
33

```

- Chạy chương trình:

Text Segment		Source	Labels
Bkpt	Address	Code	Label
	0x00400000	addi \$t0, \$zero, 5	theSum
	0x00400004	addi \$s1, \$zero, 7	And
	0x00400008	add \$t0, \$s0, \$s1	is
	0x0040000c	li \$v0, 4	
	0x00400010	la \$a0, theSum	
	0x00400014	addi \$s0, \$zero, 5	
	0x00400018	addi \$s1, \$zero, 7	
	0x0040001c	add \$t0, \$s0, \$s1	
	0x00400020	li \$v0, 1	
	0x00400024	la \$a0, 0(\$t0)	
	0x00400028	syscall	
	0x0040002c	addi \$s0, \$zero, 5	
	0x00400030	addi \$s1, \$zero, 7	
	0x00400034	add \$t0, \$s0, \$s1	
	0x00400038	li \$v0, 1	
	0x0040003c	la \$a0, 0(\$t0)	
	0x00400040	syscall	

Data Segment									
Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)	
0x10010000	d e L	S c u	\0 \0 \n \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010020	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	e L \0 \0	c u D	n o S	\0 \0 \0 \0	
0x10010040	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010060	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010080	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100100a0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100100c0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100100e0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010100	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010120	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010140	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010160	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010180	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100101a0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100101c0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	

```
The sum of 5 and 7 is 12
-- program is finished running (dropped off bottom) --
```

Bài 3:

- Source code:

```
1 .data
2 x: .space 50
3 y: .asciiz "Le Duc Son"
4 .text
5   la $a0, x
6   la $a1, y
7 strcpy: add $s0, $zero, $zero # khai bao bien dem i = 0
8 L1: add $t1, $s0, $a1 # $t1 = i + y[0]
9   lb $t2, 0($t1) #$t2 = y[i]
10  add $t3, $s0, $a0 # $t3 = i + x[0]
11  sb $t2, 0($t3) # x[i] = y[i]
12  beq $t2, $zero, end_of_string # $t2 = 0, ket thuc
13  nop
14  addi $s0, $s0, 1 # i = i + 1
15  j L1
16  nop
17 end_of_string:
18   # in ra chuoix
19   li $v0, 4
20   la $a0, x
21   syscall
22
23
```

- Chạy chương trình:

Text Segment			Labels	
Bkpt	Address	Code	Label	Address
	0x00400000	0x3c011001 lui \$1,\$4097	5:	la \$a0, x
	0x00400004	0x34240000 ori \$4,\$1,0		
	0x00400008	0x3c011001 lui \$1,\$4097	6:	la \$a1, y
	0x0040000c	0x34250032 ori \$5,\$1,50		
	0x00400010	0x00000020 add \$16,\$0,\$0	7: strcpy: add \$s0, \$zero, \$zero # khai bao bien dem i = 0	
	0x00400014	0x20054820 add \$9,\$16,\$5	8: L1: add \$t1, \$s0, \$a1 # \$t1 = i + y[0]	
	0x00400018	0x812a0000 lb \$10,0(\$9)	9: lb \$t2, 0(\$t1) #\$t2 = y[i]	
	0x00400022	0x02045820 add \$11,\$16,\$4	10: add \$t3, \$s0, \$a0 # \$t3 = i + x[0]	
	0x00400026	0xa16a0000 sb \$10,0(\$11)	11: sb \$t2, 0(\$t3) # x[i] = y[i]	
	0x0040002a	0x11400004 beq \$10,\$0,4	12: beq \$t2, \$zero, end_of_string # \$t2 = 0, ket thuc	
	0x0040002e	0x00000000 nop	13: nop	
	0x00400032	0x22100001 addi \$16,\$16,1	14: addi \$s0, \$s0, 1 # i = i + 1	
	0x00400036	0x08010005 j 0x00400014	15: j L1	
	0x0040003a	0x00000000 nop	16: nop	
	0x0040003e	0x24020004 addiu \$2,\$0,4	19: li \$v0, 4	
	0x00400042	0x3c011001 lui \$1,\$4097	20: la \$a0, x	
	0x00400046	0x34240000 ori \$4,\$1,0		

Data Segment									
Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)	
0x10010000	D e L	S c u	\0 \0 \n \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010020	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	e L \0 \0	c u D	n o S	\0 \0 \0 \0	
0x10010040	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010060	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010080	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100100a0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100100c0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100100e0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010100	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010120	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010140	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010160	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x10010180	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100101a0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	
0x100101c0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	

Mars Messages	Run I/O
Le Duc Son	
-- program is finished running (dropped off bottom) --	
<input type="button" value="Clear"/>	

Bài 4:

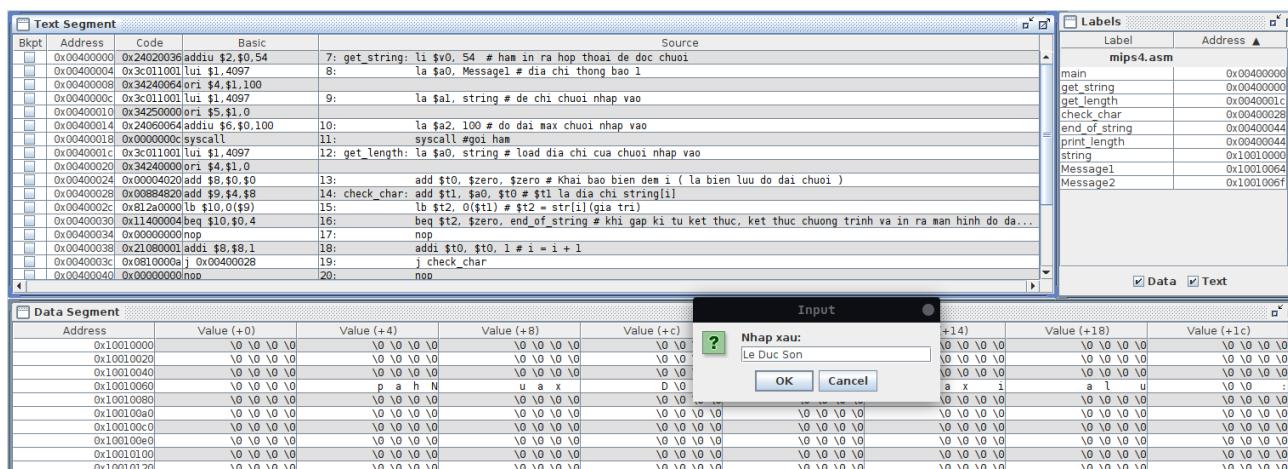
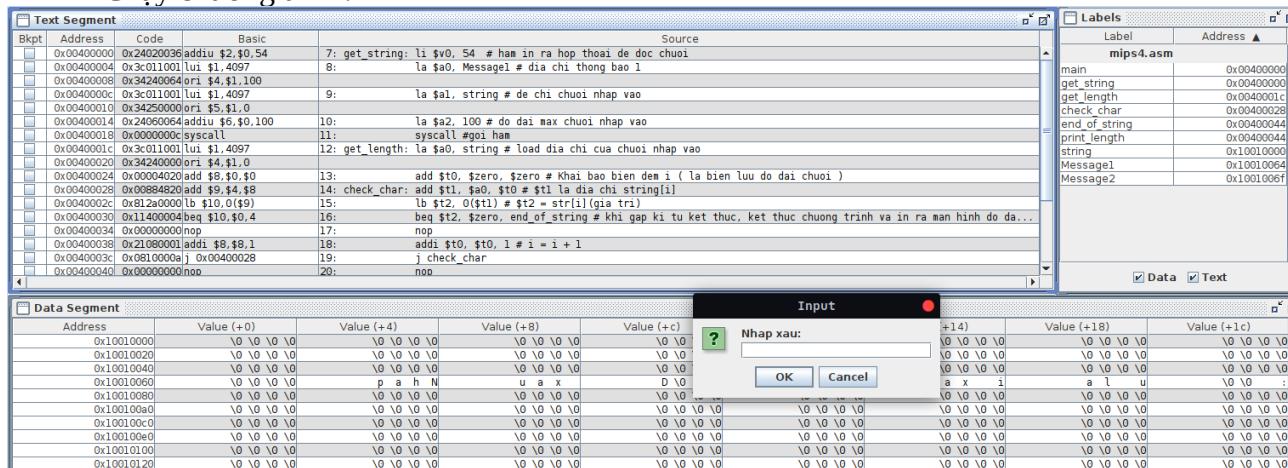
- Source code:

```

1 .data
2 string: .space 100
3 Message1: .asciz "Nhập xau: "
4 Message2: .asciz "Do dai xau la: "
5 .text
6 main:
7 get_string: li $v0, 54 # ham in ra hop thoai de doc chuoi
8 la $a0, Message1 # dia chi thong bao
9 la $a1, string # de chi chuoi nhap vao
10 la $a2, 100 # do dai max chuoi nhap vao
11 syscall #goi ham
12 get_length: la $a0, string # load dia chi cua chuoi nhap vao
13 add $t0, $zero, $zero # Khai bao bien dem i ( la bien luu do dai chuoi )
14 check_char: add $t1, $a0, $t0 # $t1 la dia chi string[i]
15 lb $t2, 0($t1) # $t2 = str[i](gia tri)
16 beq $t2, $zero, end_of_string # khi gap ki tu ket thuc, ket thuc chuong trinh va in ra man hinh do dai chuoi
17 nop
18 addi $t0, $t0, 1 # i = i + 1
19 j check_char
20 nop
21 end_of_string:
22 print_length: li $v0, 56 # in ra hop thoai de in ra do dai chuoi
23 la $a0, Message2 # dia chi thong bao
24 addi $t0, $t0, -1 # loai bo ki tu ket thuc
25 la $a1, 0($t0) # do dai chuoi
26 syscall # goi ham
27
28
29

```

- Chạy chương trình:



Text Segment

Bkpt	Address	Code	Basic	Source
	0x00400000	0x24020036	addiu \$2,\$0,54	7: get_string: li \$v0, 54 # ham in ra hop thoai de doc chuoi
	0x00400004	0x3c011001	lui \$1,4097	8: la \$a0. Message1 # dia chi thong bao 1
	0x00400008	0x3d240981	lui \$4,41,100	9: la \$a1, string # de chi chuoi nhap vao
	0x0040000c	0x3c011001	lui \$1,4,4097	10: la \$a2, 100 # do dai max chuoi nhap vao
	0x00400010	0x34250000	ori \$5,\$1,0	11: syscall #goi ham
	0x00400018	0x0000000c	syscall	12: get_length: la \$a0. string # load dia chi cua chuoi nhap vao
	0x00400020	0x34240000	ori \$4,\$1,0	
	0x00400024	0x00004020	add \$8,\$0,\$0	13: add \$t0, \$zero, \$zero # Khai bao bien dem i (la bien luu do dai chuoi)
	0x00400028	0x00984820	add \$9,\$4,\$8	14: check_char: add \$t1, \$a0, \$t0 + \$t1 la dia chi string[i]
	0x0040002c	0x812a0000	lb \$10,0(\$9)	15: lb \$t2, 0(\$t1) # \$t2 = strl1(gia tri)
	0x00400030	0x11400004	beq \$10,\$0,4	16: beq \$t2, \$zero, end_of_string # khi gap ki tu ket thuc, ket thuc chuong trinh va in ra man hinh do da...
	0x00400034	0x00000000	nop	17: nop
	0x00400038	0x21080000	addi \$8,\$8,1	18: addi \$t0, \$t0, 1 # i = i + 1
	0x0040003c	0x08100000	j 0x00400028	19: j check_char
	0x00400040	0x00000000	nop	20: nop

Labels

Label	Address
mips4.asm	0x00400000
main	0x00400000
get_string	0x00400000
get_length	0x0040001c
check_char	0x00400028
end_of_string	0x00400444
print_length	0x00400344
string	0x10010000
Message1	0x10010000
Message2	0x10010064

Data Text

Data Segment

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010020	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010040	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010060	\0 \0 \0 \0	p a h N	u a x	D \0	a x i	a l u	\0 :
0x10010080	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x100100a0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x100100c0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x100100e0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010100	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0
0x10010120	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0	\0 \0 \0 \0

i Do dai xau la: 10

OK

Bài 5:

- Source code:

```
mips1.asm mips2.asm mips3.asm mips4.asm mips5.asm
1 .data
2 string: .space 80
3 message1: .asciz "Nhap vao chuoi: "
4 message2: .asciz "Chuoi dao nguoc:\n"
5 .text
6 addi $s0, $zero, 21 # chieu dai toi da chuoi co the nhap vao i
7 la $a1, string
8 li $v0, 4 # in ra thong bao 1
9 la $a0, message1
10 syscall
11 read:
12 li $v0, 12 # goi ham doc tung ky tu
13 syscall
14
15 addi $s0, $s0, -1 # giam so ky tu co the doc vao i = i -1
16 beq $v0, 10, end_read # gap dau enter, ket thuc doc vao
17 beqz $s0, end_read # nhap qua 20 ky tu, ket thuc doc vao
18
19 add $t1, $s0, $a1 # lay dia chi cua string[i]
20 sb $v0, 0($t1) # gan ki tu vua doc vao t1
21 j read
22 end_read:
23 #in ra thong bao 2
24 li $v0, 4
25 la $a0, message2
26 syscall
27 #in ra chuoi nguoc
28 li $v0, 4
29 la $a0, 0($t1)
30 syscall
31
```

- Chạy chương trình:

- Dưới 20 ký tự:

The screenshot shows the MARS assembly debugger interface. On the left is the Text Segment window displaying assembly code. In the center is the Data Segment window showing memory dump. On the right is the Labels window listing labels and their addresses. Below these windows is the Mars Messages window containing the output of the program's execution.

Text Segment:

Bkpt	Address	Code	Basic	Source
	0x00400000	0x20100015	addi \$16,\$0,21	6: addi \$s0, \$zero, 21 # chieu dai toi da chuoi co the nhap vao i
	0x00400004	0x3c010001	lui \$1,4097	7: lui \$a0, string
	0x00400008	0x34250000	ori \$5,\$1,0	
	0x0040000c	0x24020004	addiu \$2,\$0,4	8: li \$v0, 4 # in ra thong bao l
	0x00400010	0x3c010001	lui \$1,4097	9: la \$a0, message1
	0x00400014	0x34240005	ori \$4,\$1,80	
	0x00400018	0x0000000c	syscall	10: syscall
	0x0040001c	0x2402000c	addiu \$2,\$0,12	12: li \$v0, 12 # goi ham doc tung ky tu
	0x00400020	0x0000000c	syscall	13: syscall
	0x00400024	0x2210ffff	addi \$16,\$16,-1	15: addi \$s0, \$s0, -1 # giam so ky tu co the doc vao i = i -1
	0x00400028	0x2001000a	addi \$1,\$0,10	16: beq \$v0, 10, end_read # gap dau enter, ket thuc doc vao
	0x00400032	0x10220004	beq \$1,\$2,4	
	0x00400036	0x12000003	beq \$16,\$0,3	17: begz \$s0, end_read # nhap qua 20 ky tu, ket thuc doc vao
	0x0040003a	0x02054820	add \$9,\$16,\$5	19: add \$t1, \$s0, \$a1 # lay dia chi cua string[i]
	0x0040003c	0x12020000	sb \$2,0(\$t1)	20: sb \$v0, 0(\$t1) # gan ki tu vua doc vao t1
	0x0040003e	0x08010007	j 0x0040001c	21: j read
	0x00400040	0x24020004	addiu \$2,\$0,4	24: li \$v0, 4

Data Segment:

Address	Value (+0)	Value (+4)	Value (+8)	Value (+c)	Value (+10)	Value (+14)	Value (+18)	Value (+1c)
0x10010000	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	c\0\0\0\0	e\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010020	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	n\0\0\0\0	d\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010040	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010060	u\0\0\0\0	d\0\0\0\0	i\0\0\0\0	n\0\0\0\0	a\0\0\0\0	c\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010080	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010090	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x1001009c	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100100a0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100100b0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100100c0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100100d0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100100e0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100100f0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010100	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010110	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010120	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010130	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010140	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010150	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010160	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010170	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010180	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010190	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100101a0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100101b0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100101c0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100101d0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100101e0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100101f0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010200	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010210	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010220	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010230	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010240	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010250	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010260	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010270	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010280	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010290	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100102a0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100102b0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100102c0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100102d0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100102e0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100102f0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010300	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010310	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010320	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010330	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010340	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010350	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010360	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010370	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010380	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x10010390	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100103a0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100103b0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0	\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0	\0\0\0\0\0\0\0\0
0x100103c0	\0\0\0\0\0\0\0\0							