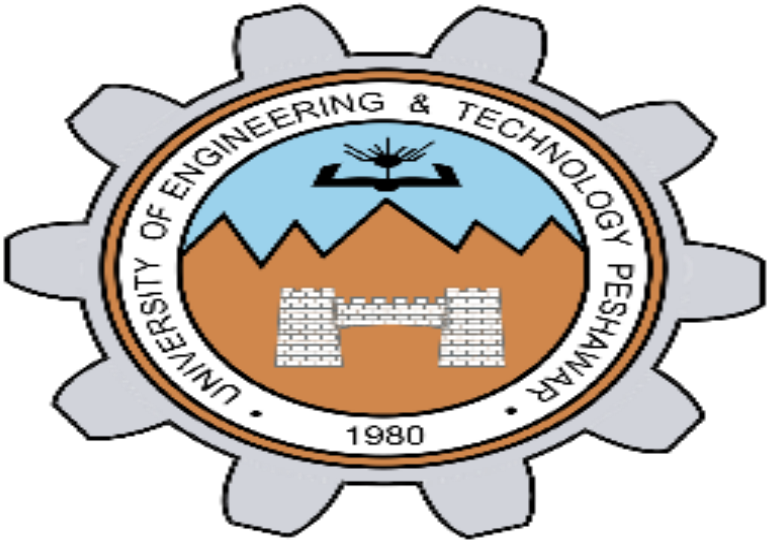
University of Engineering & Technology, Peshawar

DEPARTMENT OF COMPUTER SYSTEM ENGINEERING

Fall 2021



LAB 03

(CSE-304L)

Computer Organization and Architecture Lab

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Reg NO: 19PWCSE1770

Submitted to: Dr. Ammad Khalil

02, December 2021

1.Addition of numbers and Display:

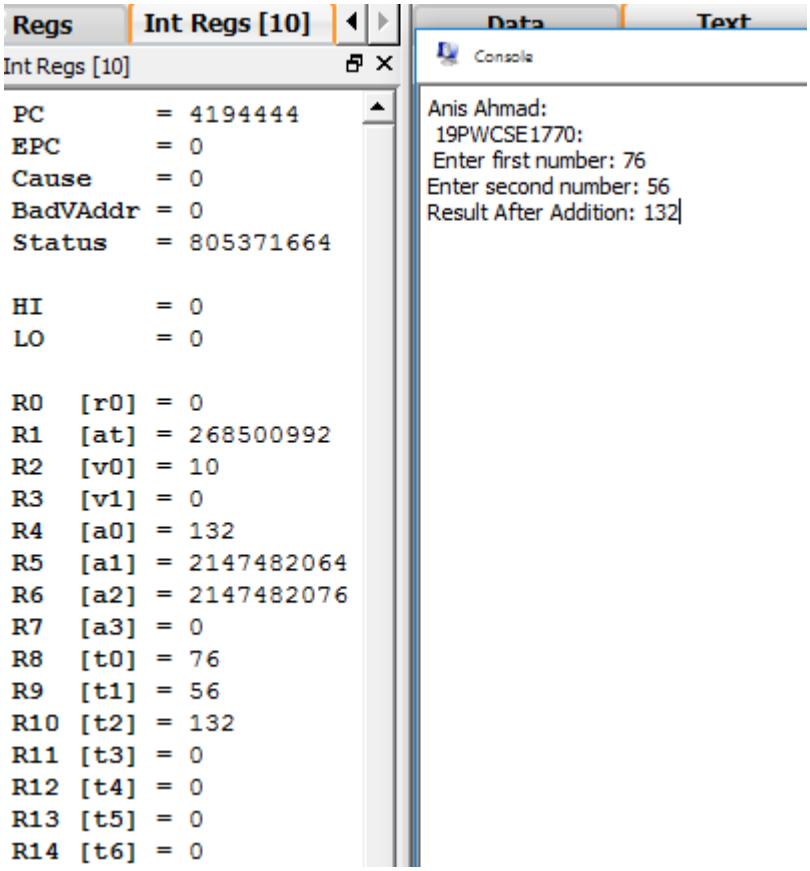
Source code:

```
.data
str0: .asciiz"Anis Ahmad: \n 19PWCSE1770:\n "
str: .asciiz"Enter first number: "
str1: .asciiz"Enter second number: "
str2: .asciiz"Result After Addition: "
.text
main:
  li $v0,4
  la $a0,str0
  syscall
```

```
 li $v0,4
 la $a0,str
syscall
 li $v0,5
 syscall
 move $t0,$v0
```

```
li $v0,4

la $a0,str2

syscall



li $v0,5

syscall

move $t1,$v0
```

Output:




```
add
$t2,$t0,$t1

li $v0, 4
la $a0,str2
syscall
```

```
li $v0,1
move
$a0,$t2
syscall
```

```
li $v0,10

syscall
```

2.Display the Last digit of a Number:

Source code:

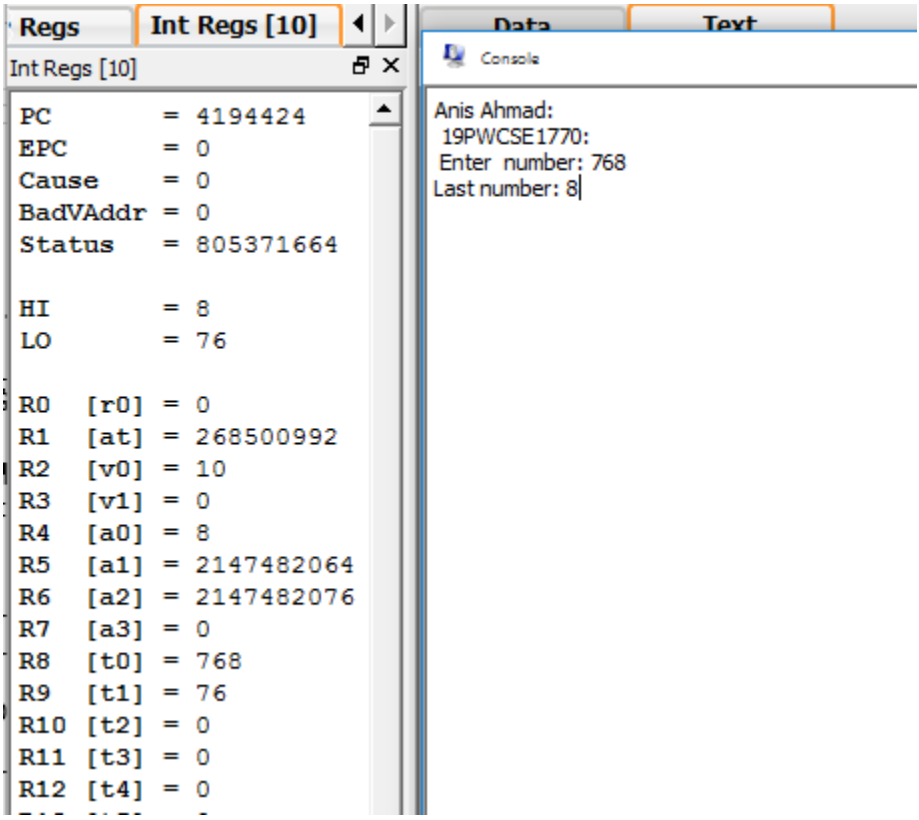
```
.data
str: .asciiz"Anis Ahmad: \n 19PWCSE1770:\n "
str1: .asciiz"Enter  number: "
str2: .asciiz"Last number: "
.text
main:
```

```
li $v0,4

la $a0,str

syscall
```

```
li $v0,4
la $a0,str
syscall
li $v0,5
syscall
move $t0,$v0
```

Output:

```
div $t1,$t0,10

li $v0, 4
la $a0,str2
syscall
```




```
li $v0,1
mfhi $a0
syscall
```

```
li $v0,10

syscall
```

3.Finding the Number is Greater then Zero:

Source code:

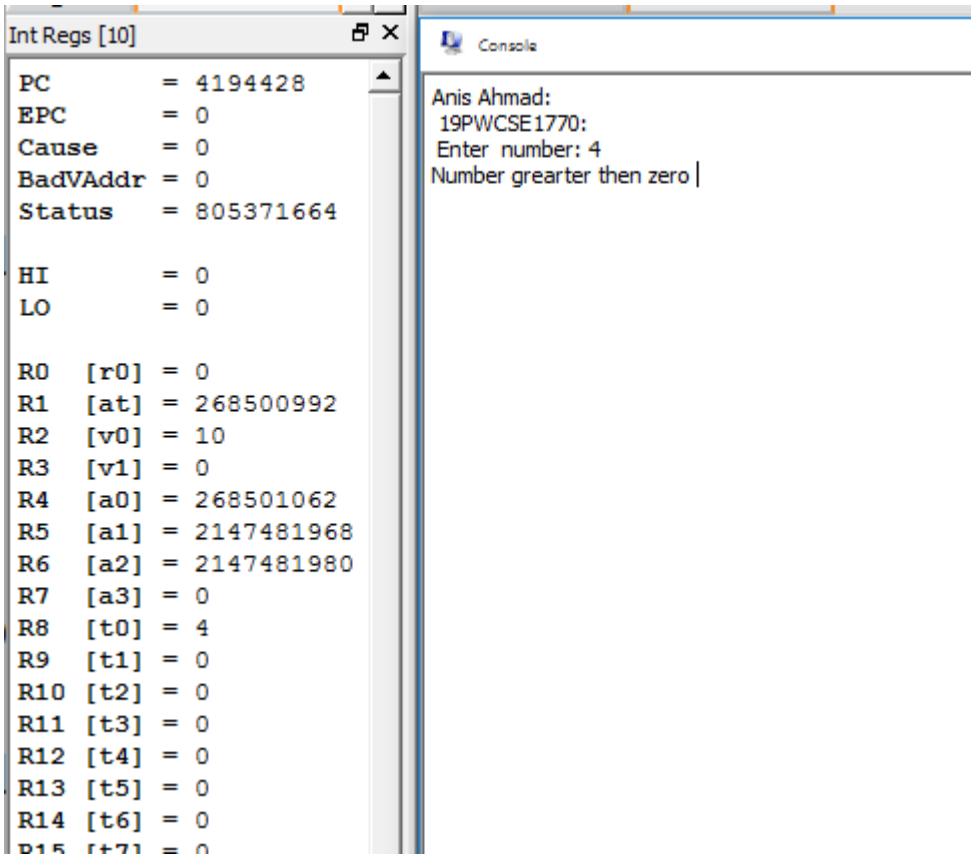
```
.data
str: .asciiz"Anis Ahmad: \n 19PWCSE1770:\n "
str1: .asciiz"Enter  number: "
str2: .asciiz"Not grearter then zero: "
str3: .asciiz"Number grearter then zero "
.text
main:

 li $v0,4
 la $a0,str
 syscal
 li $v0,4
 la $a0,str1
syscall


 li $v0,5
 syscall
 move $t0,$v0
```

```
bgt $t0,$t1 label
li $v0,4
la $a0,str2
syscall
b end
```

```
label:
li $v0,4
la $a0,str3
syscall
```

```
end:
li $v0,10
syscall
```

Output:



4.Finding the Numbers are Equal or Not:

Source code:

```
.data
str: .asciiz"Anis Ahmad: \n 19PWCSE1770:\n "
str1: .asciiz"Enter  number: "
str2: .asciiz"Numbers are not Equal: "
str3: .asciiz"Numbers are equal:"
.text
main:

 li $v0,4
 la $a0,str
 syscal
 li $v0,4
 la $a0,str1
syscall
 li $v0,5
 syscall
 move $t0,$v0
```

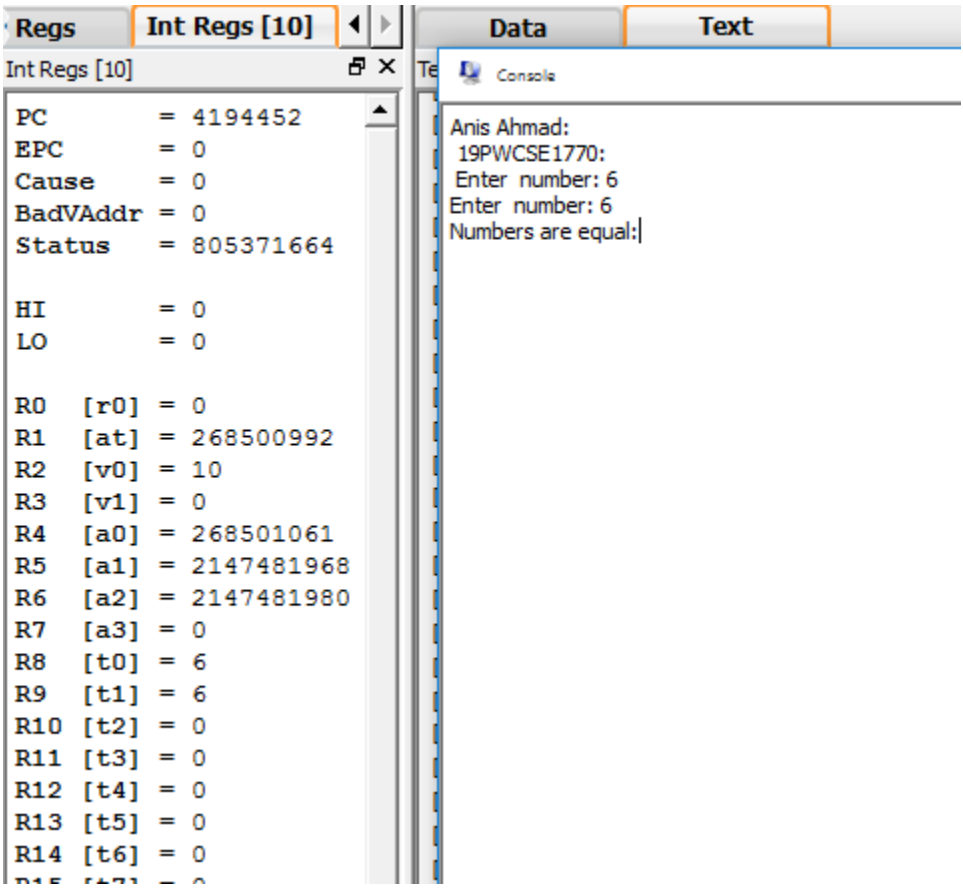
```
li $v0,4
la $a0,str1
syscall


li $v0,5
syscall
move $t1,$v0
```

```
beq $t0,$t1 label
li $v0,4
la $a0,str2
syscall
b end
```

```
label:
li $v0,4
la $a0,str3
syscall
```

```
end:
li $v0,10
syscall
```

Output:



5.Finding the Small number between 2:

Source code:

```
.data
str0: .asciiz"Anis Ahmad: \n 19PWCSE1770:\n "
str: .asciiz"Enter first number: "
str1: .asciiz"Enter second number: "
str2: .asciiz"The register have: "
.text
main:
```

```
li $v0,4
la $a0,str0
syscal
```

```
li $v0,4
la $a0,str
syscall
li $v0,5
syscall
move $t0,$v0
```

```
li $v0,4
la $a0,str1
syscall


li $v0,5
syscall
move $t1,$v0
```

```
slt $t2,$t0,$t1

li $v0,4
la $a0,str2
syscall
```

```
move $a0,$t2
li $v0,1
syscall
```

```
li $v0,10
syscall
```

Output: