INDEX

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| SNO | DATE | LAB NO | LAB OBJECTIVE | SIGN |
| 1 | 3-11-21 | 1 | INTRODUCTION TO VVM |  |
| 2 | 3-11-21 | 2 | INTRODUCTION TO VVM PROGRAMMING |  |
| 3 | 10-11-21 | 3 | CONDITIONAL STATEMENTS |  |
| 4 | 17-11-21 | 4 | INTRODUCTION TO MIPS |  |
| 5 | 17-11-21 | 5 | MIPS ASSEMBLY LANGUAGE ARITHMETIC OPERATIONS |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

Bahria University,

Karachi Campus



LAB EXPERIMENT NO.

**05**

LIST OF TASKS

|  |  |
| --- | --- |
| TASK NO | OBJECTIVE |
| 1 | **Write An Assembly Program That Prints Your Personal Information** |
| 2 | **Write An Assembly Program That Add Two Number** |
| 3 | **Write An Assembly Program That Subtract Two Number** |
| 4 | **Write An Assembly Program That Add Three Numbers:** |
| 5 | **Write An Assembly Program That Multiply Two Number.** |
| 6 | **Write An Assembly Program That Divide Two Number** |
| 7 | **Write An Assembly Program to Take Input from User and Add Numbers.** |
|  |  |
|  |  |

Submitted On:

**17-NOV-2021**

**Date: DD/MM/YY**

**Task No 1:** **Write an assembly program to print your personal information**

**SOLUTION**

**CODE:**

.data

prompt: .asciiz "M Muaz\n BSE-3B"

################### Code segment ###################

.text

.globl main

main:

li $v0,4

la $a0,prompt

syscall

li $v0,10

syscall

**OUTPUT:**

Graphical user interface, application, Word

Description automatically generated

**Task No 2**: **Write an assembly program that add two number**

**SOLUTION**

**CODE:**

.data

prompt: .asciiz "YOU VALUE IS\n"

num1: .word 20

num2: .word 5

.text

.globl main

main: #main program entry

lw $t1,num1

lw $t2,num2

li $v0,4

la $a0,prompt

syscall

add $t3,$t1,$t2

li $v0,1

move $a0,$t3

syscall

li $v0,10

syscall

**OUTPUT:**

Graphical user interface, text, application

Description automatically generated

**Task No 3: Write an assembly program that subtract two number**

**SOLUTION**

**CODE:**

.data

prompt: .asciiz "YOU VALUE IS\n"

num1: .word 20

num2: .word 5

.text

.globl main

main: #main program entry

lw $t1,num1

lw $t2,num2

li $v0,4

la $a0,prompt

syscall

sub $t3,$t1,$t2

li $v0,1

move $a0,$t3

syscall

li $v0,10

syscall

**OUTPUT:**

Graphical user interface, text, email

Description automatically generated

**Task No 4: Write an assembly program that Add three numbers:**

**SOLUTION**

**CODE:**

.data

prompt: .asciiz "YOU VALUE IS\n"

num1: .word 20

num2: .word 5

num3: .word 6

.text

.globl main

main: #main program entry

lw $t1,num1

lw $t2,num2

lw $t3,num3

li $v0,4

la $a0,prompt

syscall

add $t4,$t1,$t2

add $t5,$t4,$t3

li $v0,1

move $a0,$t5

syscall

li $v0,10

syscall

**OUTPUT:**

Graphical user interface, text, application

Description automatically generated

**Task No 5:** **Write an assembly program that Multiply two number.**

**SOLUTION**

**CODE:**

.data

prompt: .asciiz "YOU VALUE IS\n"

num1: .word 20

num2: .word 5

.text

.globl main

main:

lw $t1,num1

lw $t2,num2

li $v0,4

la $a0,prompt

syscall

mul $t3,$t1,$t2

li $v0,1

move $a0,$t3

syscall

li $v0,10

syscall

**OUTPUT:**

Graphical user interface, text, email

Description automatically generated

**Task No 6:** **Write an assembly program that Divide two number**

**SOLUTION  
 CODE:**

data

prompt: .asciiz "YOUR VALUE IS\n"

num1: .word 20

num2: .word 5

.text

.globl main

main: #main program entry

lw $t1,num1

lw $t2,num2

li $v0,4

la $a0,prompt

syscall

div $t3,$t1,$t2

li $v0,1

move $a0,$t3

syscall

li $v0,10

syscall

**OUTPUT:**

Graphical user interface, text, application, email

Description automatically generated

**Task No 7:** **Write an assembly program to take input from user and add numbers.**

**SOLUTION**

**CODE:**

.data

prompt: .asciiz "Please enter three numbers:\n"

sum: .asciiz "The sum is : \n"

.text

.globl main

main:

li $v0,4

la $a0,prompt

syscall

li $v0,5

syscall

move $t1,$v0

li $v0,5

syscall

move $t2,$v0

li $v0,5

syscall

move $t3,$v0

addu $t1,$t1,$t2

addu $t1, $t1,$t3

li $v0,4

la $a0,sum

syscall

li $v0,1

move $a0,$t1

syscall

li $v0,10

syscall

**OUTPUT:**

A screenshot of a computer

Description automatically generated with medium confidence