**Logo

Description automatically generated San Francisco Bay University**

**EE488 - Computer Architecture**

**Quiz #2**

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1. Write a program in MIPS assembly language to find out the max and min values which are read in from the keyboard among the 5 integers

**Answer:**

.data

prompt: .asciiz "Enter an integer: "

max\_prompt: .asciiz "\nThe maximum value is: "

min\_prompt: .asciiz "\nThe minimum value is: "

newline: .asciiz "\n"

.text

.globl main

main:

li $t0, 0

li $t1, -2147483648

li $t2, 2147483647

get\_input\_loop:

beq $t0, 5, display\_result

li $v0, 4

la $a0, prompt

syscall

li $v0, 5

syscall

move $t3, $v0

bgt $t3, $t1, update\_max

j check\_min

update\_max:

move $t1, $t3

j check\_min

check\_min:

blt $t3, $t2, update\_min

j increment\_counter

update\_min:

move $t2, $t3

j increment\_counter

increment\_counter:

addi $t0, $t0, 1

j get\_input\_loop

display\_result:

li $v0, 4

la $a0, max\_prompt

syscall

li $v0, 1

move $a0, $t1

syscall

li $v0, 4

la $a0, min\_prompt

syscall

li $v0, 1

move $a0, $t2

syscall

li $v0, 10

syscall