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# COSC 300

# Dr. Ezekiel

# Decimal to Hexadecimal

# Write a MIPS code that converts decimal to hexadecimal

# ##################################

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# Data Section

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# ##################################

.data

result: .space 8

str: .asciiz "\nEnter Decimal number you want to convert: "

ans: .asciiz "\n\nGiven Decimal number is: "

ans1: .asciiz "\n\nHexadecimal for given decimal number is: "

bye: .asciiz "\n\nHave a nice weekend!"

# ##################################

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# Text Section

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# ##################################

.text

.globl main

main:

la $a0, str

li $v0, 4

syscall

li $v0, 5

syscall

move $t0, $v0

la $a0, ans

li $v0, 4

syscall

move $a0, $t0

li $v0, 1

syscall

li $t1, 8

la $s1, result

Loop:

beqz $t1, StrEnd

rol $t0, $t0, 4

and $t3, $t0, 0xf

ble $t3, 9, Sum

addi $t3, $t3, 55

j End

Sum:

addi $t3, $t3, 48

End:

sb $t3, 0($s1)

addi $s1, $s1, 1

addi $t1, $t1, -1

j Loop

StrEnd:

la $a0, ans1

li $v0, 4

syscall

la $a0, result

li $v0, 4

syscall

la $a0, bye

li $v0, 4

syscall

li $v0, 10

syscall

