#Christopher Rabb

#Salam Salloum

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

.data

Prompt: .asciiz "\nThis string will be converted:\n"

line: .asciiz "\n"

Word: .asciiz "HELLO WORLD"

.globl main

.text

main: li $a1, 12 #length of string

la $a0, Prompt

li $v0, 4

syscall

la $a0, Word #string to be transformed

li $v0, 4

syscall

la $a0, line

syscall

la $a0, Word

jal toLowerCase #function call

la $a0, Word #go back to first address

li $v0, 4 #print

syscall

li $v0, 10 #terminate

syscall

toLowerCase:

move $t0, $a0 #move argument to temp variable

li $t1, 0 #initializing counter

j check #jump to helper function

check: lb $a0, 0($t0) #load byte

beqz $a0, done #Done if null space

beq $a0, 32, skip #Skip if white space

addi $a0, $a0, 32 #add 32 to ascii value for lowercase

sb $a0, 0($t0) #enter new value

skip: addi $t0, $t0, 1 #incrementing

addi $t1, $t1, 1

blt $t1, $a1, check #loop until end of string

done: jr $ra #Exit function

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

This string will be converted:

HELLO WORLD

hello world