OLIVER MENSAH
COA
PRACTICAL 7 , OBJECTIVE 1 - 4

(1) Understand different type of instructions

R instructions are used when all the data values used by the instruction are located in registers.

I instructions are used when the instruction must operate on an immediate value and a register value. Immediate values may be a maximum of 16 bits long. Larger numbers may not be manipulated by immediate instructions.

J instructions have the following machine-code format.

(2) The difference between memory and register

registers are temporary storage in the CPU that holds the data the processor is currently working on, while RAM holds the program instructions and the data the program requires.

So with

(3) Understanding the names of variable and memory address

Name of a variable points to memory address and memory address is the physical location that stores data.

(4) These statement structures cause the machine to branch to a section of code if condition is met.

The section of code that has to be executed when a particular condition is met are put in a label.

The label is just a block of code the have been given a name label. For instance

beq $s3,$s4,L1 #test to see if a and b are equal

L1:add $s3,$s3,$s4 #code to execute if a == b