LAB C

Lab Objectives

In this lab you will learn how to implement some simple control flow exampls and lopps at the assembly level.:

1. Implement simple if then structure in assembly
2. Implement multiple if then elif
3. Implement a compound if then (if (A &&B)).

Part 1

Implement a simple assembly language program to do the following

```
if(A > B) x=0;
else x=1
```

You can assume that x is in register x5

Your program loads A in register x1 by using load immediate, and reads B from the input. The value of A is hardwired in your code, B is an input.

Part 2

In this part, you will implement a more complicated if statement

```
if(A > B) {
      Y=1;
      Z=2;
      } else if (A < B) {
      Y=5;
      Z=5;
     } else {
      Y=0;
      Z=0;
   }
```

A and B as in part 1

Y and Z are memory locations, you have to allocate the memory using DD with any negative numbers

Part 3

Implement the following code

```
if((A > B) && (C == 5) ) {
      Y=1;
      Z=2;
        } else {
      Y=0;
      Z=0;
   }
```

Read A, B, and C from the input panel. Y in x1, Z in x2

Submission : submit part three as

submit 2021E labc labc.pdf

The submission include the code, any further explanation you might want to add, and a copy of the register simulator showing the code and the register window before and after execution.