26/3/21
EC413
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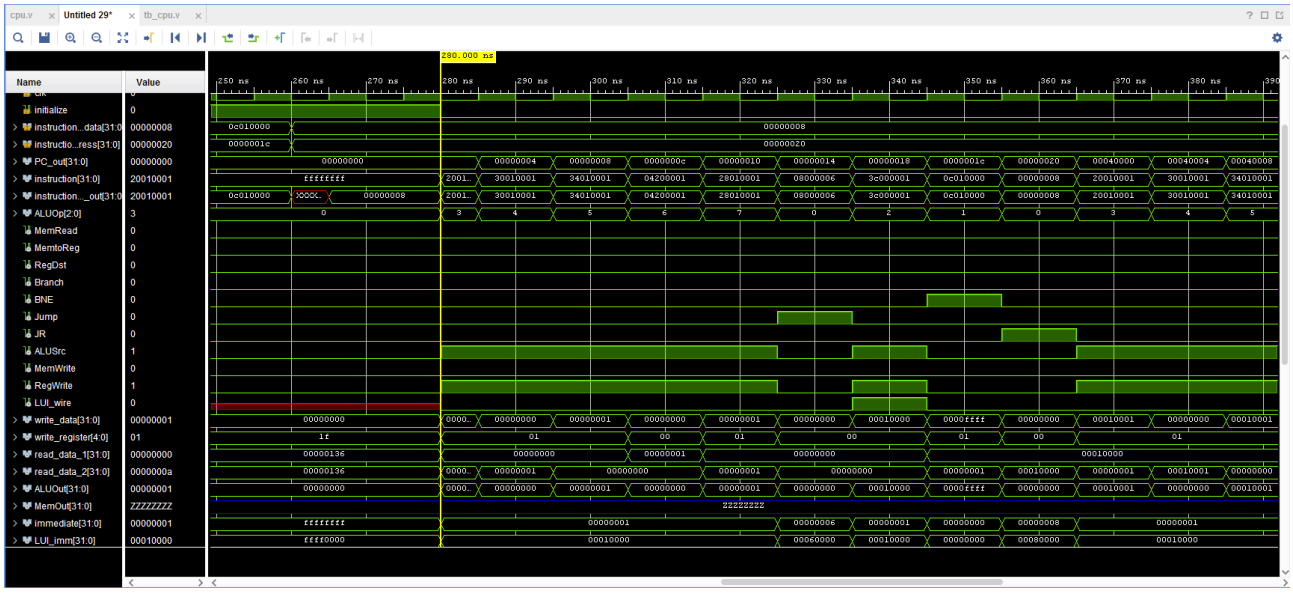
Lab7

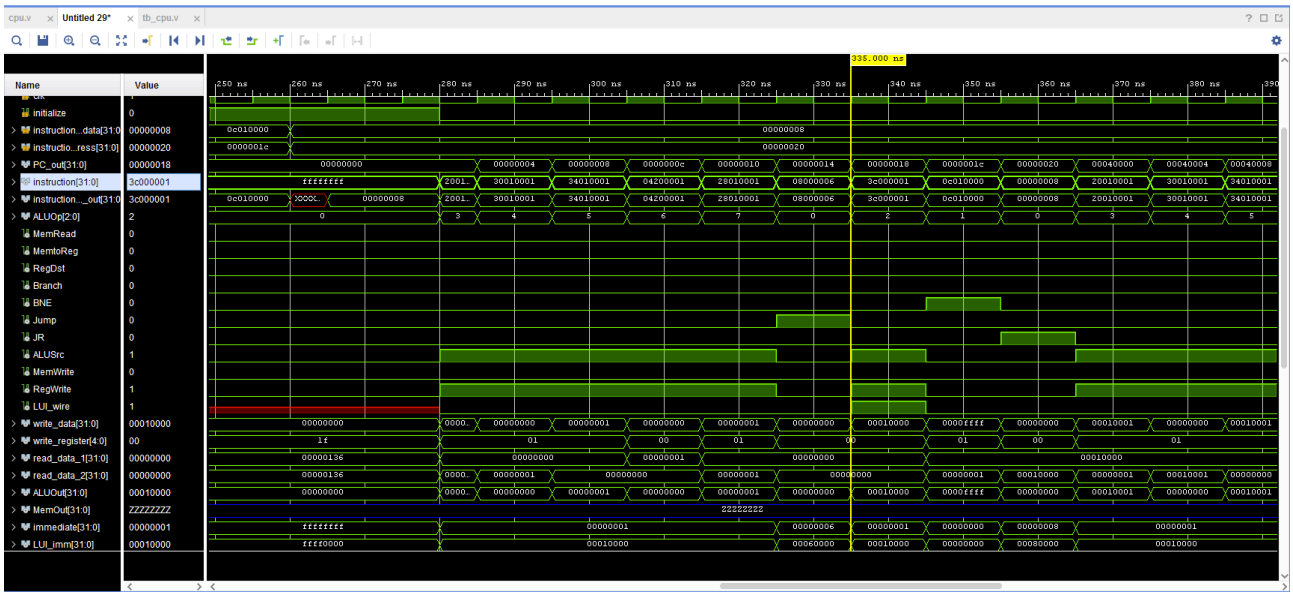
For the I-type instructions, I just modified the control to include more opcodes. For the J and the JR instructions, I created a few MUXes so that it is easier to control the PC changes. For the BNE instruction, I Just modified the control and set a MUX to choose between BEQ and BNE. For the LUI instruction, I created a new module which shifts the immediate by 16 bits and then I store it in the register provided.

ADDI R1, R0, 1



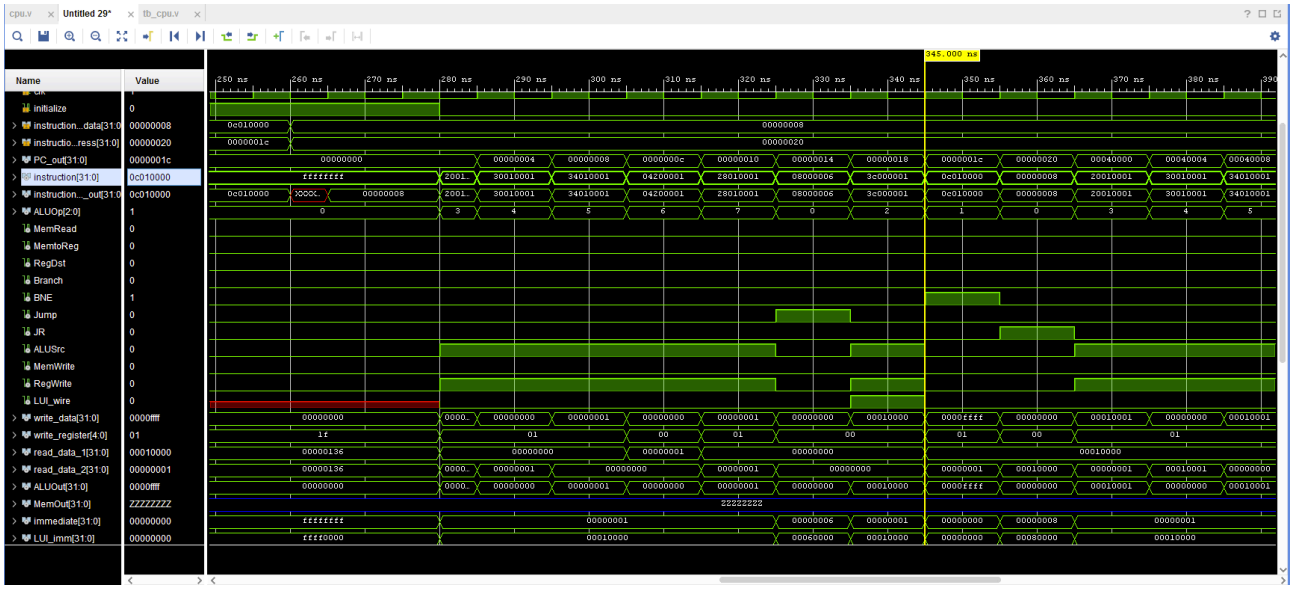
Here the instructions adds 1 to R0 (= 0) and sets the answer into R1

LUI R0, 1



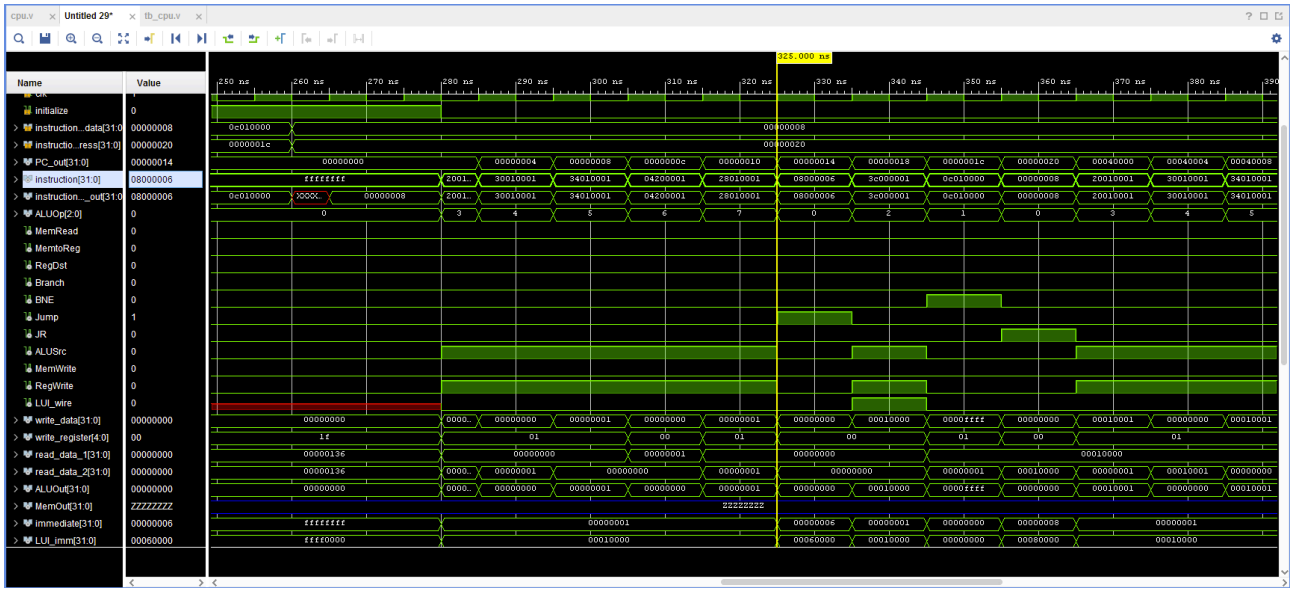
Here the immediate is shifted left by 16 bits and it's stored in R0

BNE R0, R1, 0



Here we jump the next instruction if the values of R0 and R1 don’t match

J 6



Here we jump to the 6th instruction in the programme