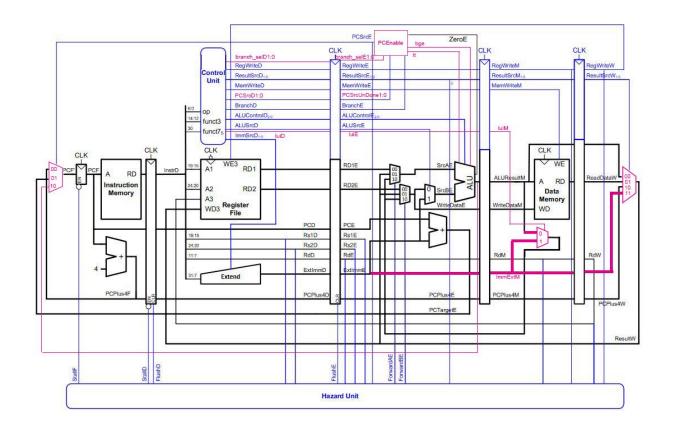
Computer Architecture – CA4 (RISC-V PipeLine Design) – Report

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DataPath For PipeLined RISC-V (Code included)

Test: writing assembly code to find lowest Data in a array of numbers.

Instruction

addi X2, Zero, -1 #Loading X2 with Maximum number Available

addi X3, Zero, Zero #Loading X3 (Array index) with 0

addi X4, Zero, 40 #Loading X4 (Max number of loop)

FOR: bge X3, X4, END-FOR #LOOP

Lw t1, A[X3] #Loading Array number X3

Blt X2, t1, END-IF #Check if lower than 16'b1

add X2, Zero, t1 #Replace Array number with 16'b1 if lower

END-IF: addi X3, X3, 4 #Increment index

Jal rd, FOR #Restart Loop

END-FOR #END Programm

