W10 Mar 18 (D2) Hardware implementation of C statements

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All Sections

These questions are presented under the following assumptions:

- They may be selected to be part of the final exam
- Responses must be posted by the students (not me)
- I will call your attention to any mistakes or wrong content posted in response

N.B.: The source of this question is Patrick R. Schaumont, "**A Practical Introduction to Hardware/Software Codesign** ", Problem 1.4, pp. 28-29.

Describe a possible implementation for each of the following C statements in hardware (use a block diagram). You can assume that all variables are integers, and that each of them is stored in a register.

1. a = a + 1;
2. if (a > 20) a = 20;
3. while (a < 20) a = a + 1;

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