CSA Project A

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(1) Draw the schematic for a single-stage processor and ll in your code to run the simulator.

Single Stage Processor

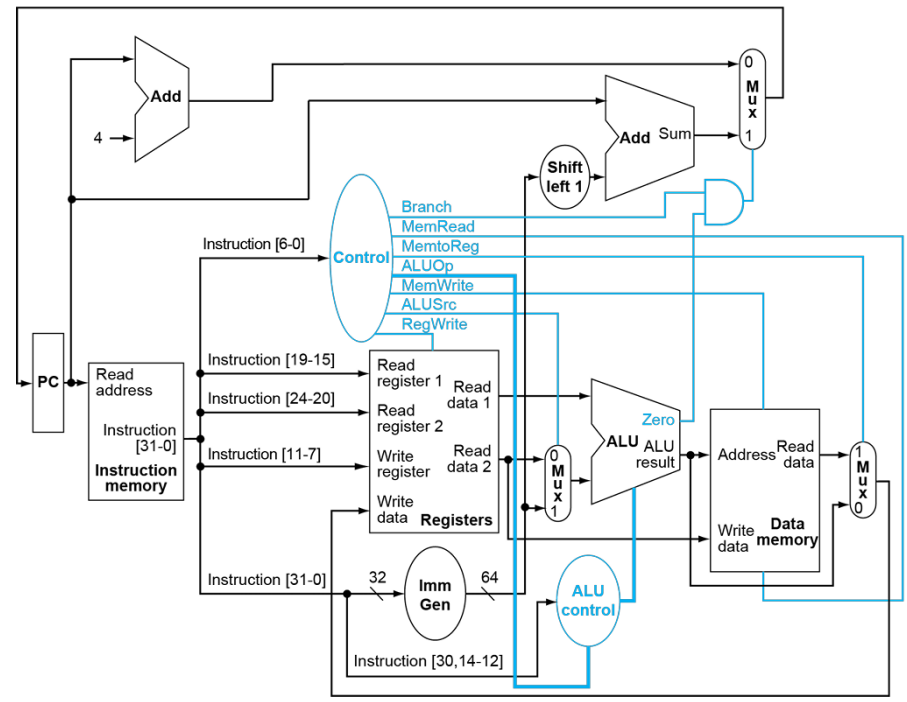

Figure 1: Image from the slide:- Lecture 5 slide 20

(3) Measure and report average CPI, Total execution cycles, and Instructions per cycle for both these cores by adding performance monitors to your code.

Sample Test Case output:

```
------------------------------Single Stage Core Performance Metrics-------------------------
Number of cycles taken: 6
Total Number of Instructions: 5
Cycles per instruction: 1.2
Instructions per cycle: 0.833333
```

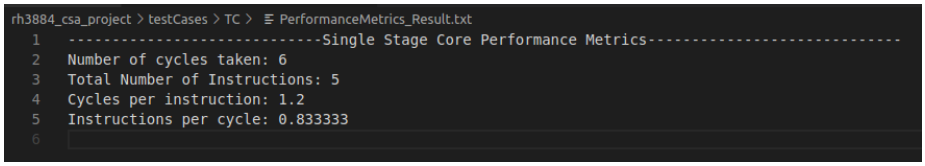

Figure 2: Screenshot of the performance metrics from the code output