Submission for Lab 1 ECE 3130

Part A:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| PC | r0 | r1 | [0x20000000] | N | Z | V | C |
| 0x08000214 | 0x08000215 | 0x00F000000 | 00000000 | 0 | 1 | 0 | 1 |
| 0x08000218 | 0x08000215 | 0xFFFFFFF25 | 00000000 | 1 | 0 | 0 | 1 |
| 0x0800021A | 0x08000215 | 0xFFFFFFF59 | 00000000 | 1 | 0 | 0 | 0 |
| 0x0800021C | 0x08000215 | 0xFFFFFFF6A | 00000000 | 1 | 0 | 0 | 0 |
| 0x0800021E | 0x08000215 | 0xFFFFFFF7C | 00000000 | 1 | 0 | 0 | 0 |
| 0x08000220 | 0x08000215 | 0xFFFFFFF98 | 00000000 | 1 | 0 | 0 | 0 |
| 0x08000222 | 0x20000000 | 0xFFFFFFF98 | 00000000 | 1 | 0 | 0 | 0 |
| 0x08000224 | 0x20000000 | 0xFFFFFFF98 | FFFFFFF98 | 1 | 0 | 0 | 0 |

Part B: 01DAF07F 31113134 311C3112 60014801 0000E7FE

Part C:

1. WITHOUT - 98 WITH - 97
2. Flags after executing ADDS r1, r1,#0xFF are ‘N’ = 0, ‘Z’ = 0, ‘C’ = 1, ‘V’ = 0, ‘N’ means the value was not negative, ‘Z’ means the result is nonzero, ‘C’ means that there was a carry, ‘V’ means that there was no overflow.

There was no overflow whatsoever.

1. Increment by 4 means the computer architecture is 32-bit; Increment by 2 means the architecture is 16-bit.