**Microprocessor and Computer Architecture**

**UE20CS252**

**4th Semester, Academic Year 2021-22**

Date: 7/02/2022

|  |  |  |
| --- | --- | --- |
| Name: Naren Chandrashekhar | SRN: PES2UG20CS216 | Section: D |

Week#\_\_\_\_4\_\_\_\_\_\_\_ Program Number: \_\_\_\_1\_\_\_

Title of the Program

**Write a program in ARM7TDMI-ISA to find GCD of two numbers.**

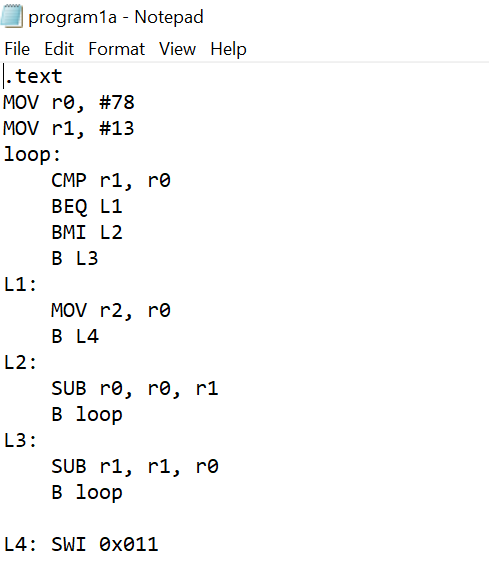
1. **Assume operands to be in the CPU registers**

**b. Assume operands in the memory locations.**

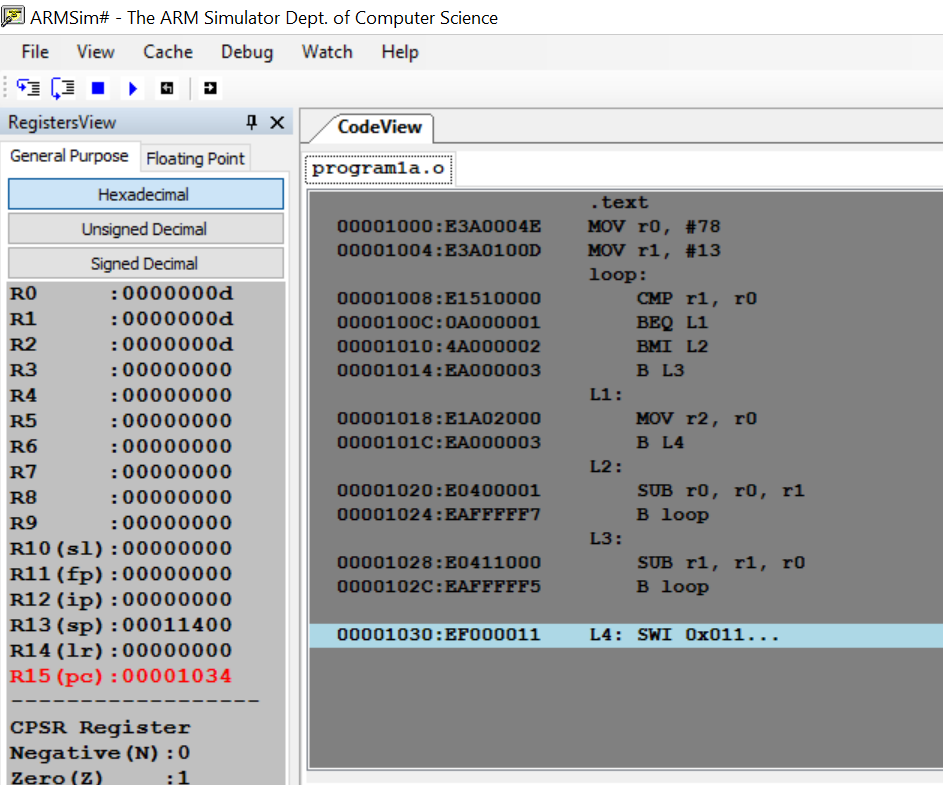
1. **ARM Assembly Code(1)**
2. **Output Screen Shot (1)**

**PART A**

**Code:**

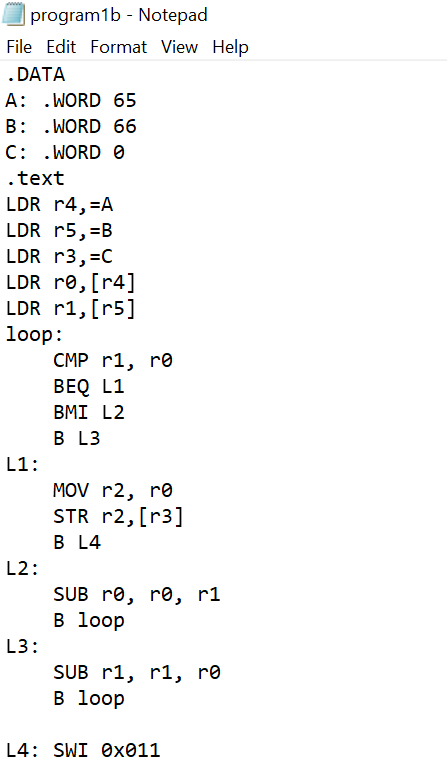
****

**Output:**

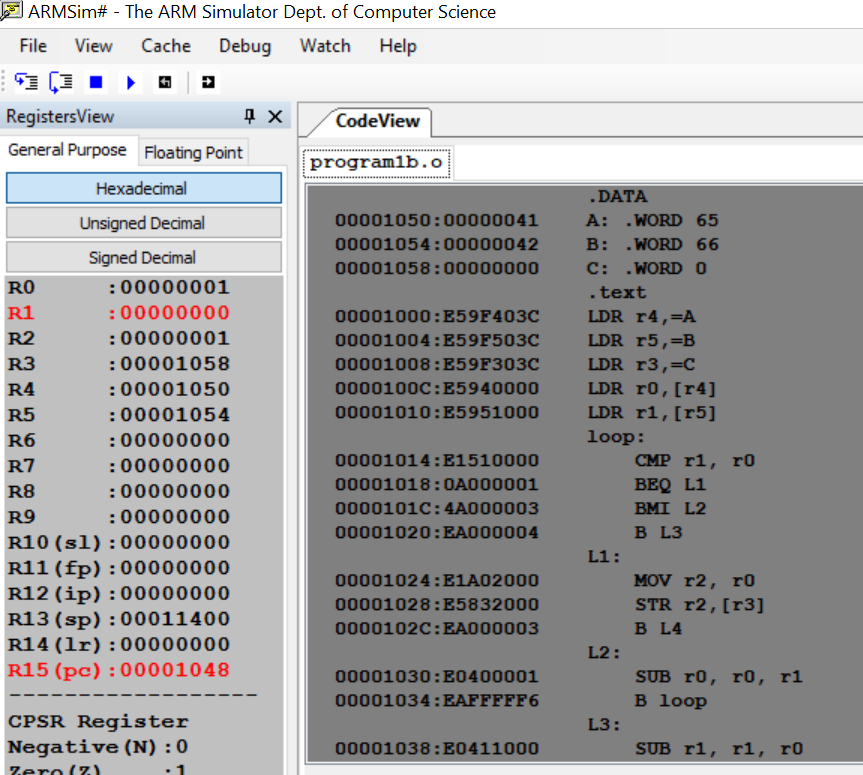
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**PART B**

**Code:**

****

**Output:**

****

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Week#\_\_\_\_4\_\_\_\_\_\_\_ Program Number: \_\_\_\_2\_\_\_

Title of the Program

**Write a program in ARM7TDMI-ISA to find the sum of N data items at alternate [ odd or even positions] locations in the memory. Store the result in the memory location.**

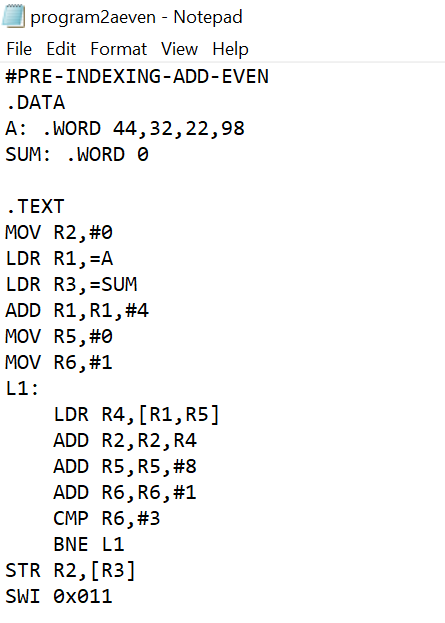
**a. Use Pre-indexing addressing mode**

**b. Use Post- Indexing addressing mode**

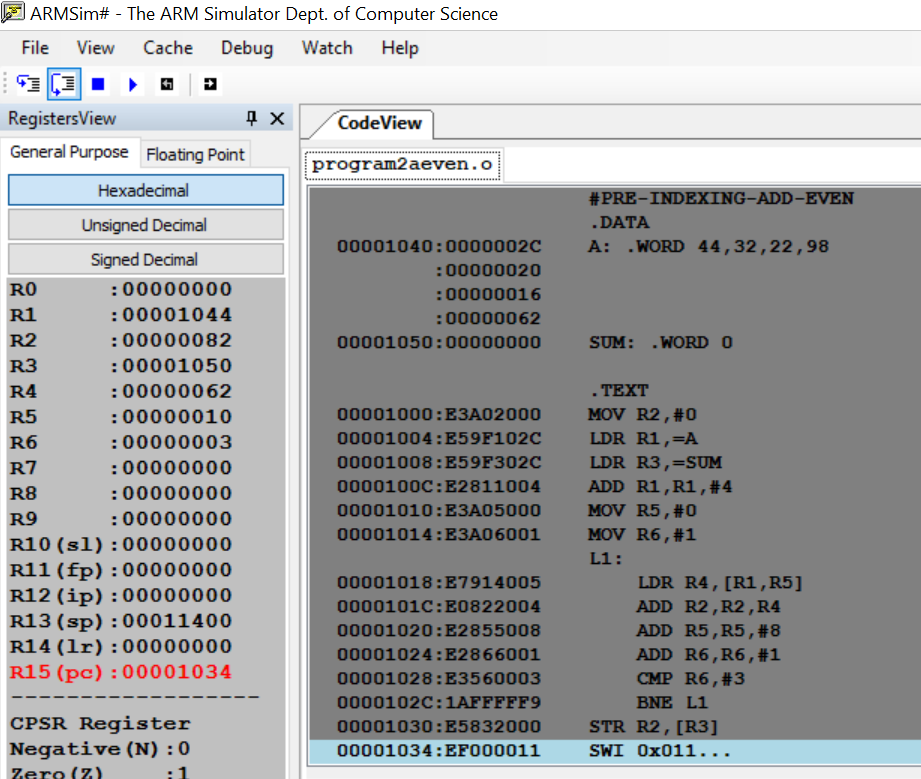
**PART A**

**Even**

**Code:**

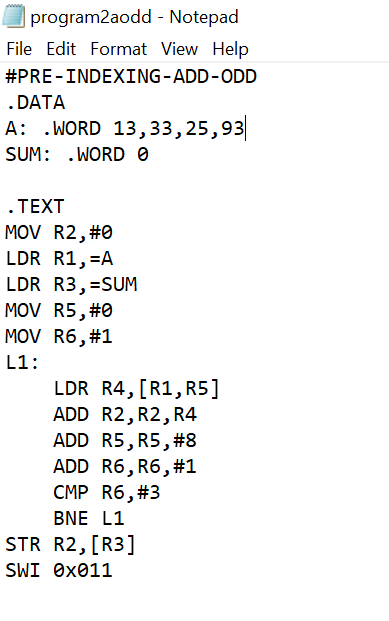
****

**Output:**

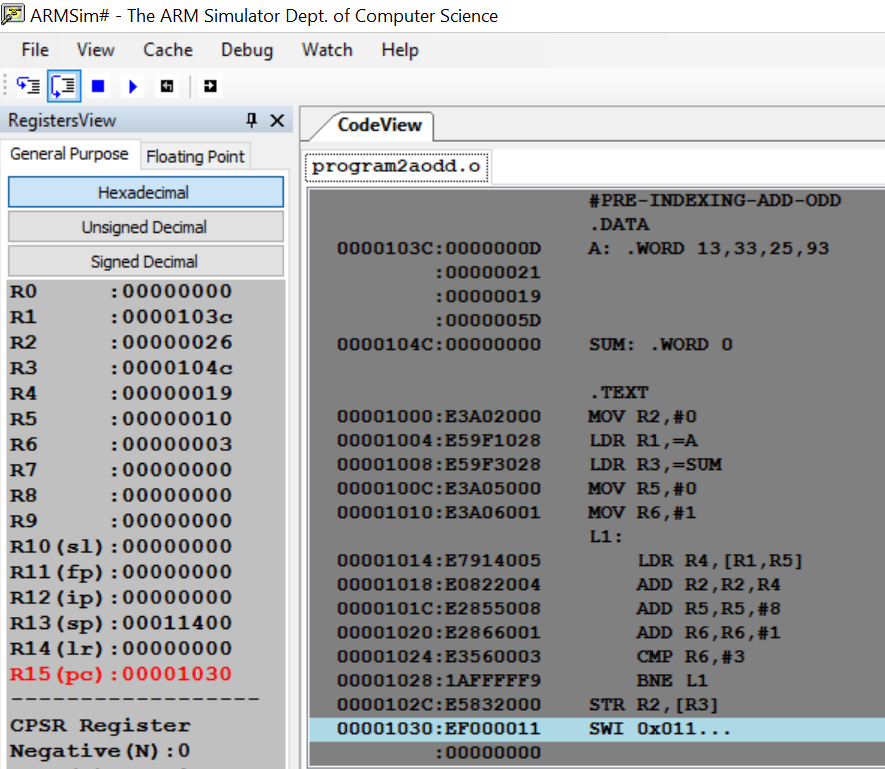
****

**Odd**

**Code:**

****

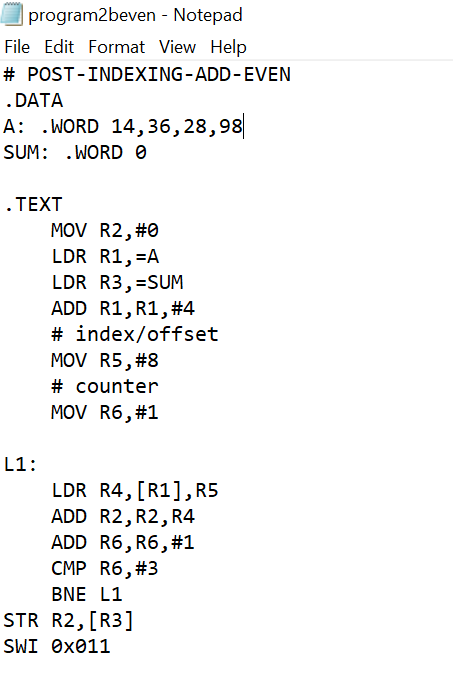
**Output:**

****

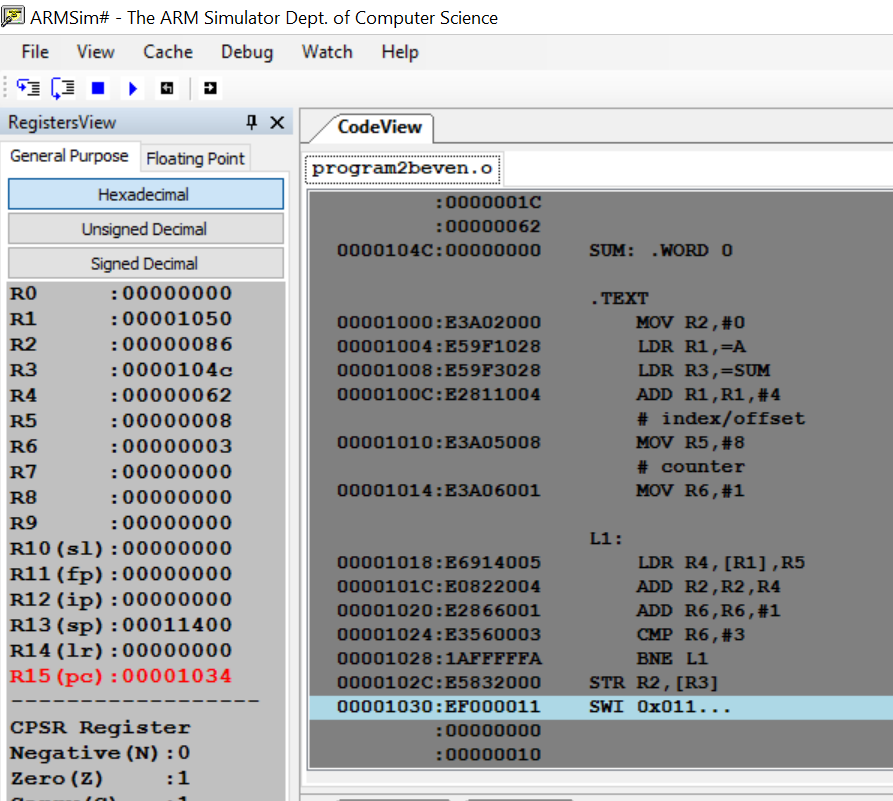
**PART B**

**Even**

**Code:**

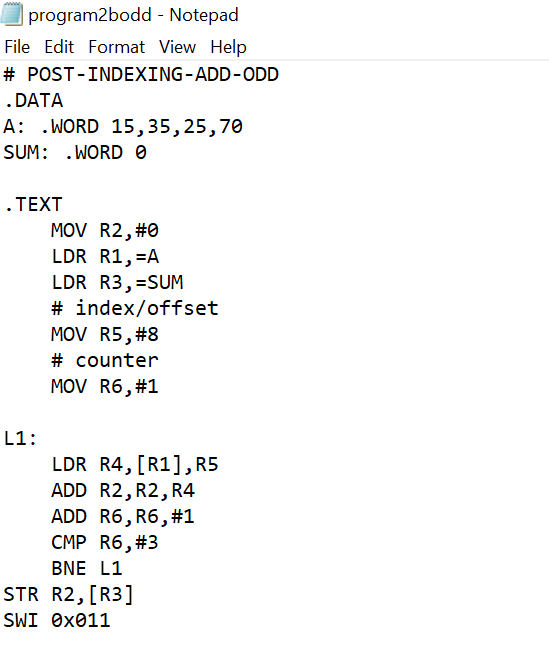
****

**Output:**

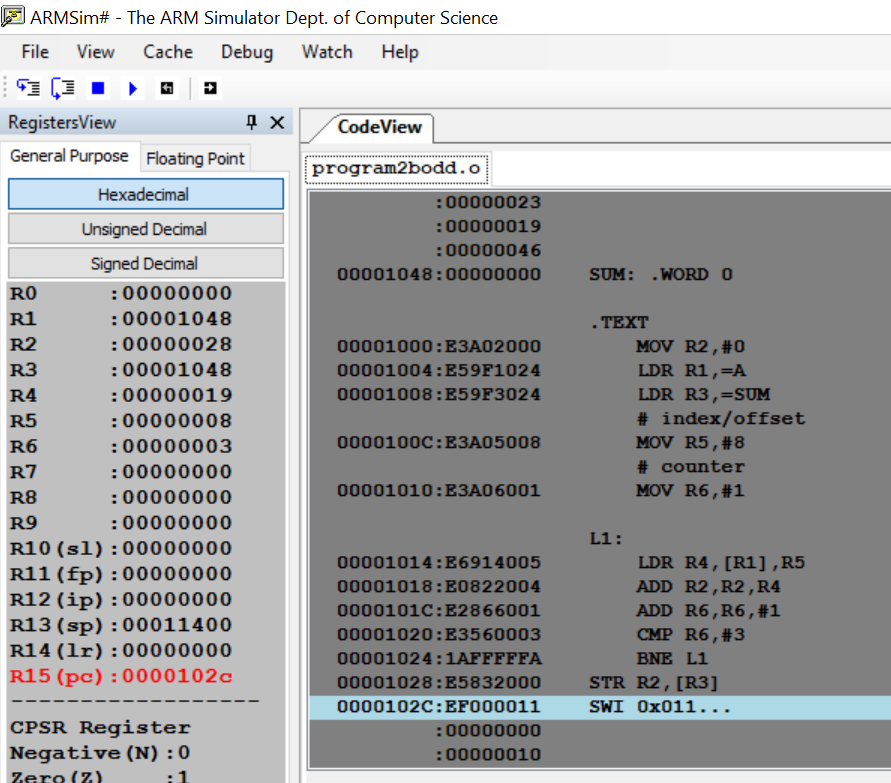
****

**Odd**

**Code:**

****

**Output:**

****

**Disclaimer:**

* The programs and output submitted is duly written, verified and executed by me.
* I have not copied from any of my peers nor from the external resource such as internet.
* If found plagiarized, I will abide with the disciplinary action of the University.

Signature: Naren C

Name: Naren Chandrashekhar

SRN: PES2UG20CS216

Section: D

Date: 7/01/2022