MICROPROCESSOR AND COMPUTER ARCHITECTURE –WEEK 1

NAGAVENI L G

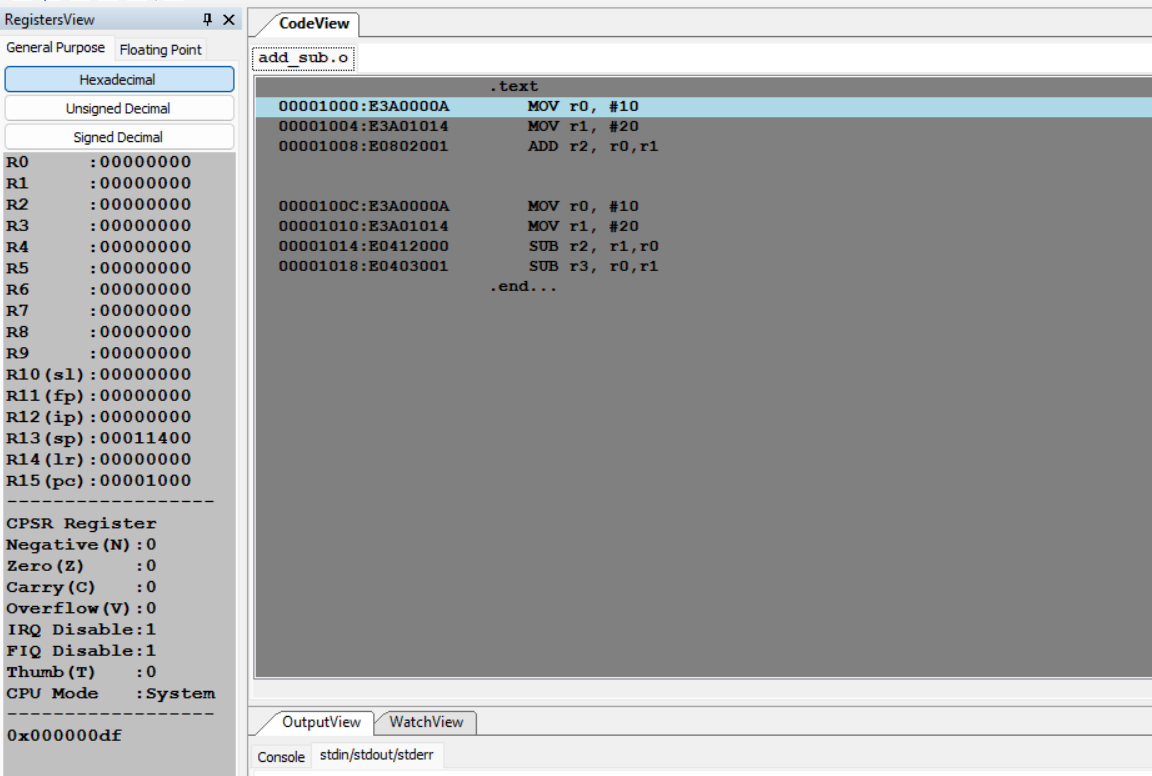
PES2UG21CS315

4TH SEM- F SEC

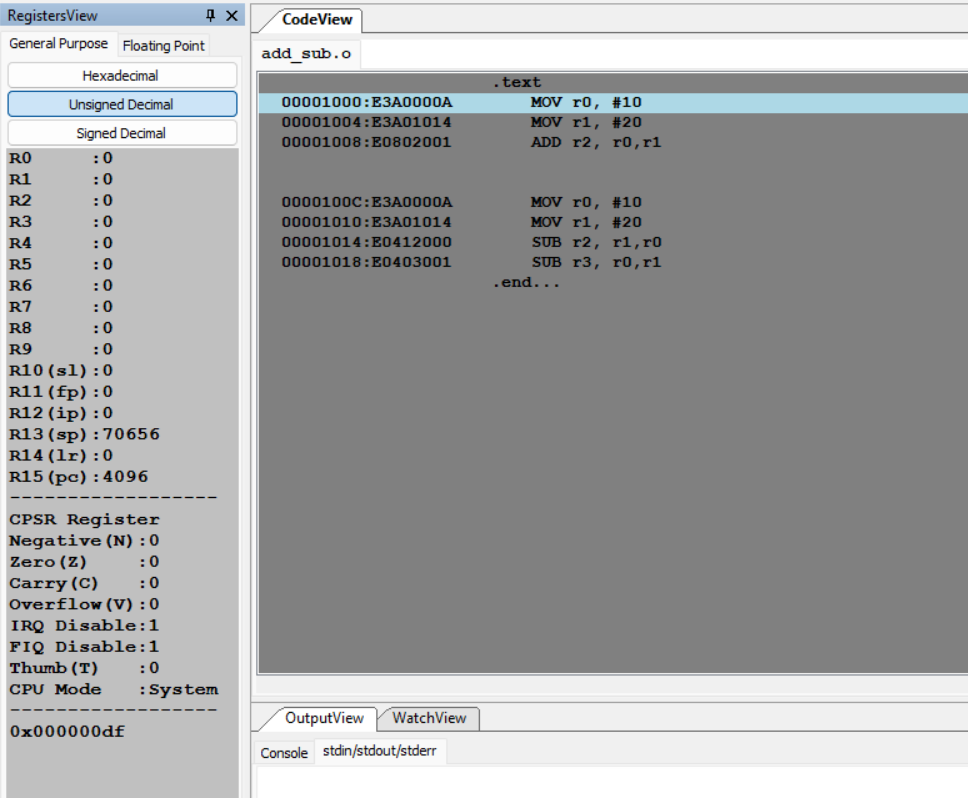
**Sample programs**

* 1. Write an ALP using ARM instruction set to add and subtract two 32 bit numbers .Both numbers are in registers.

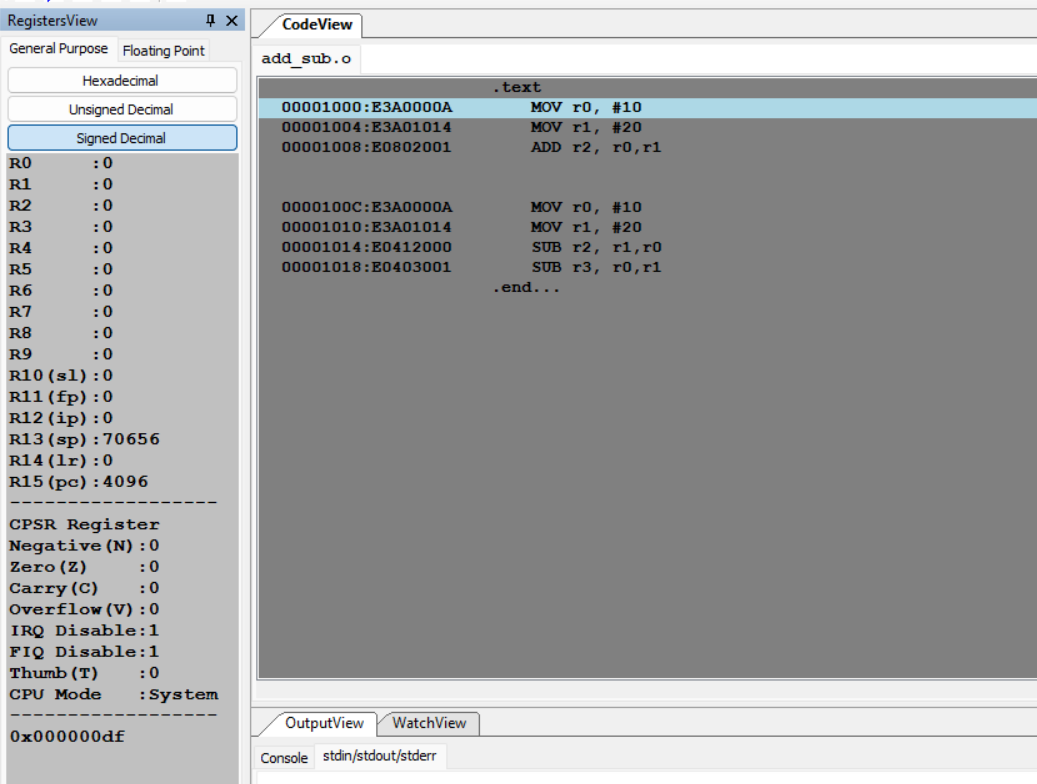
Hexadecimal



Unsigned Decimal

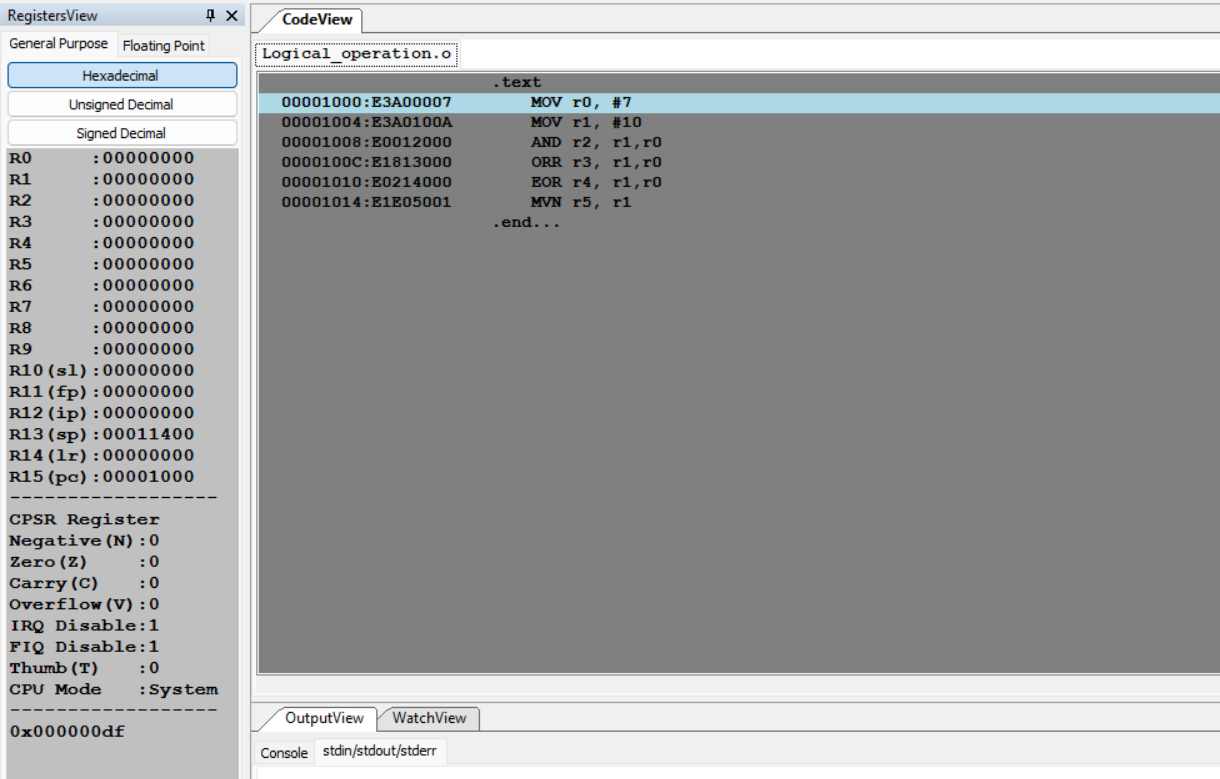


signed Decimal

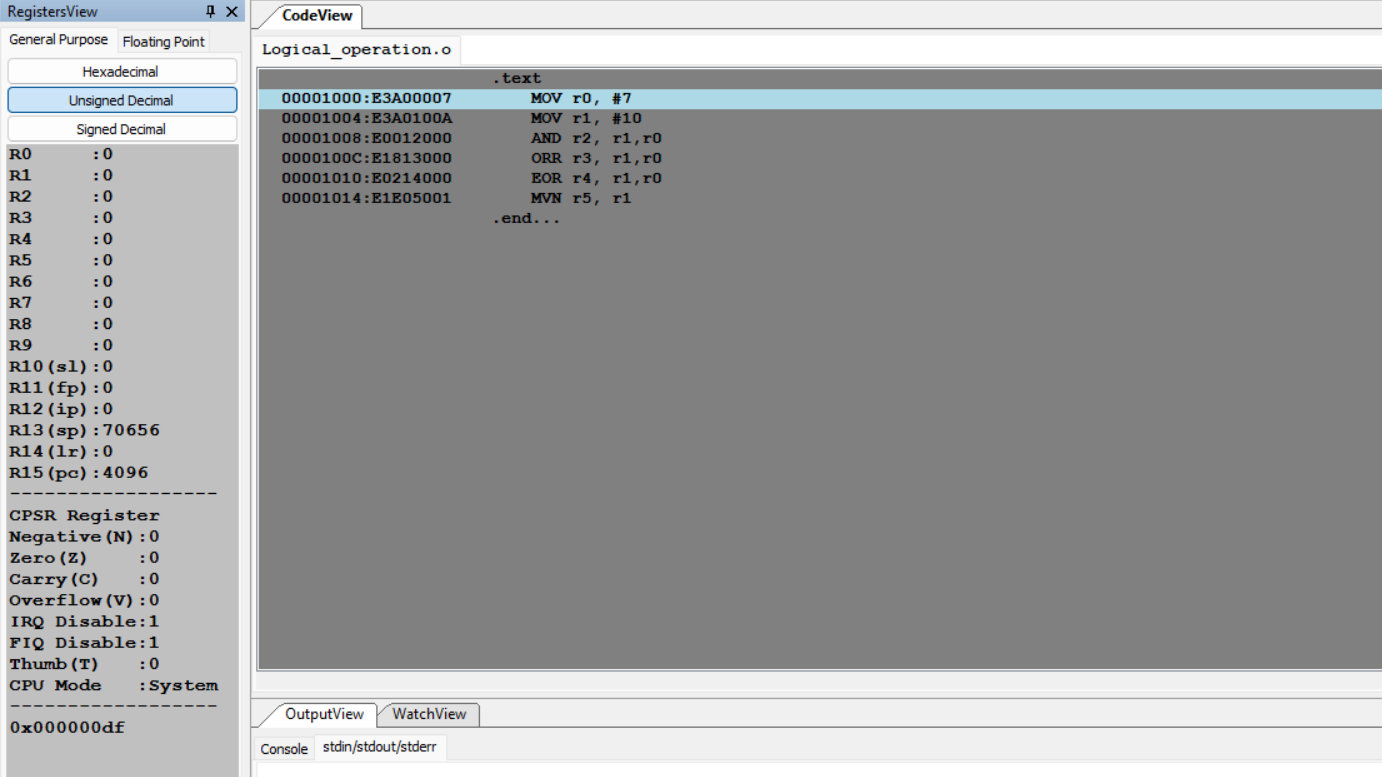


* 1. Write an ALP to demonstrate logical operations. All operands are in registers.

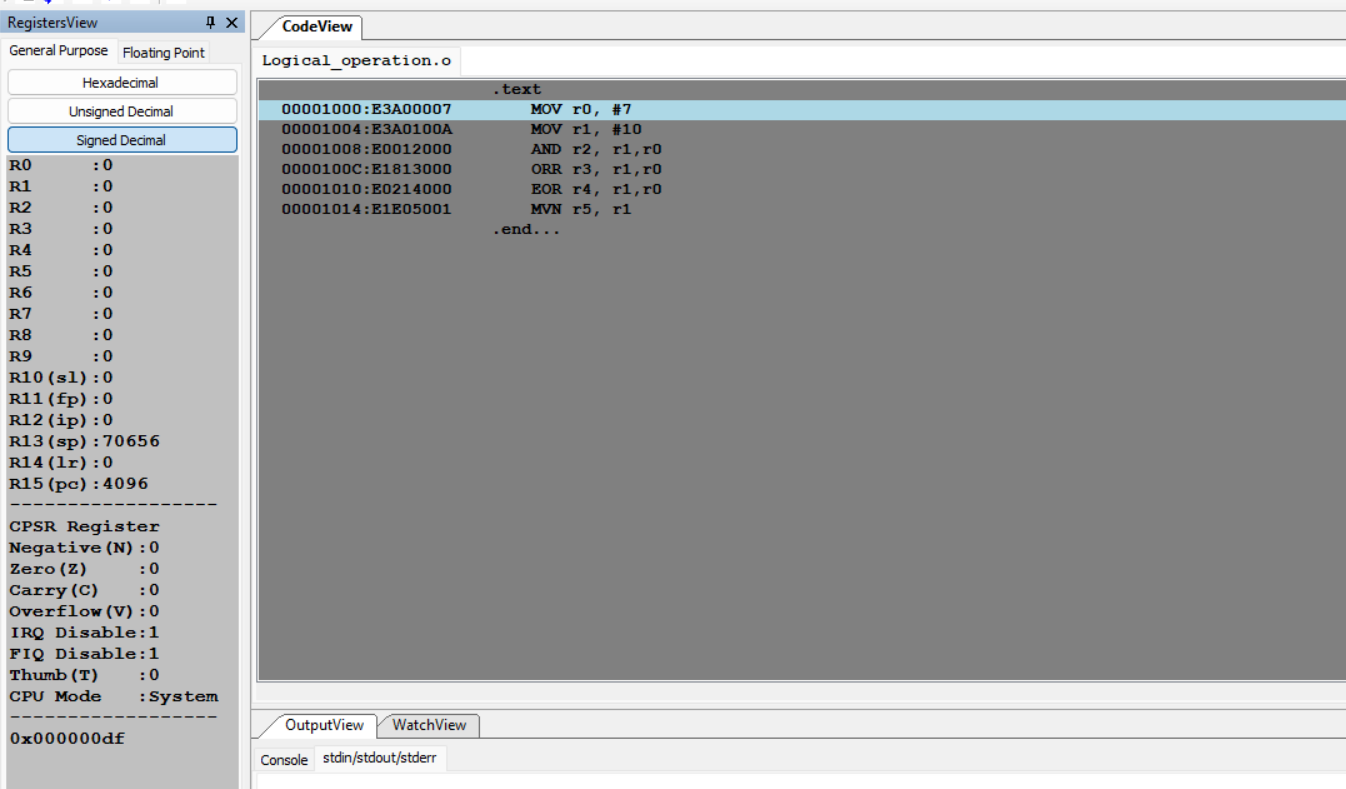
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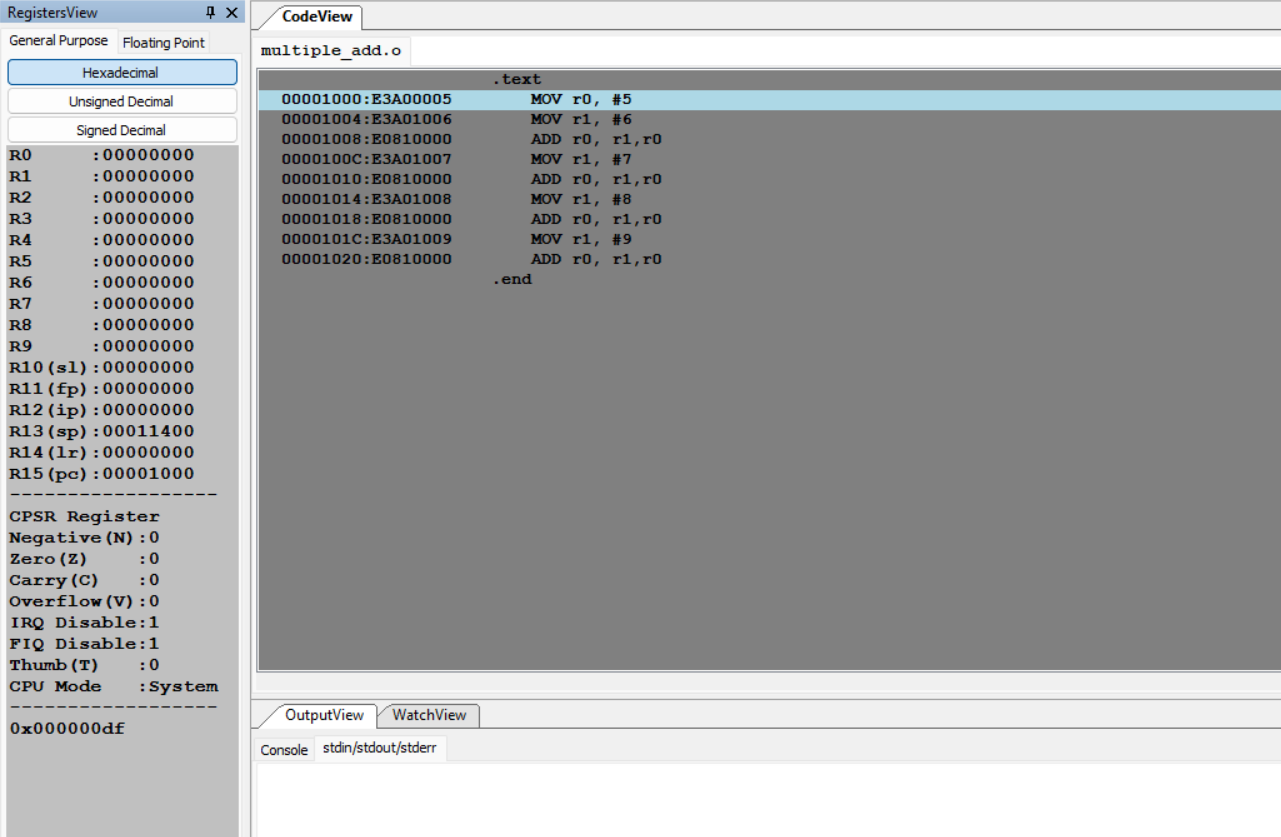


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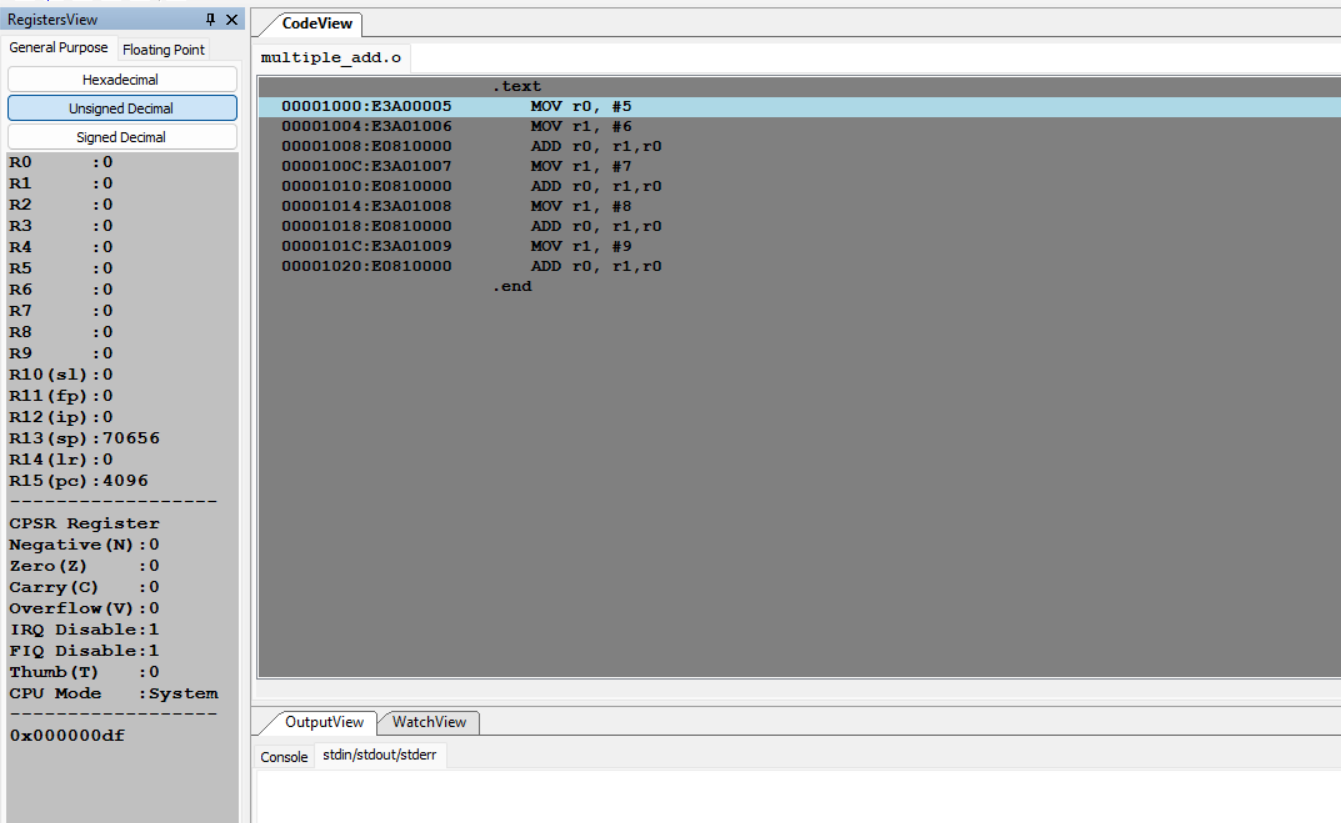


* 1. Write an ALP to add 5 numbers where values are present in registers.

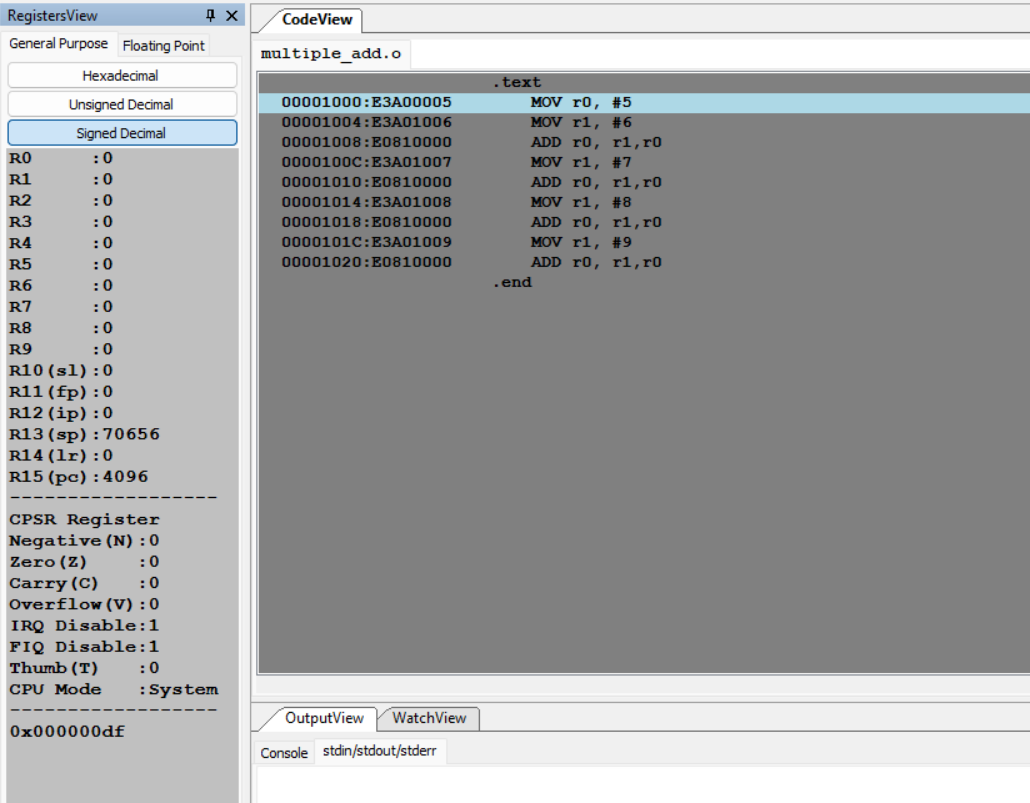
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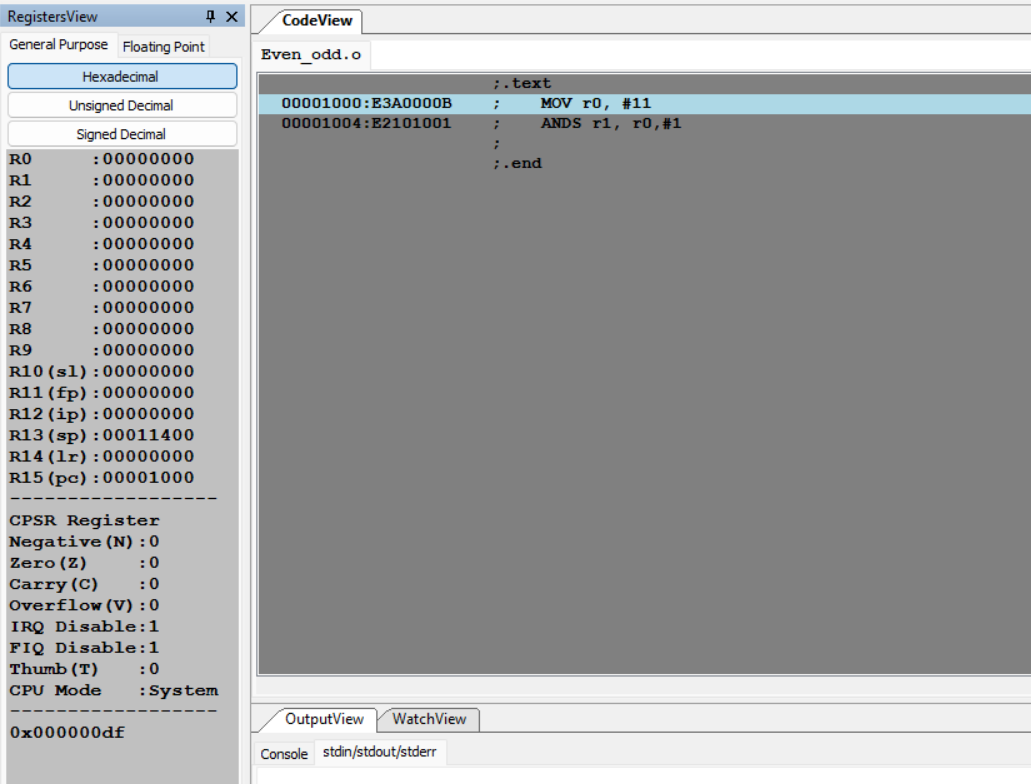
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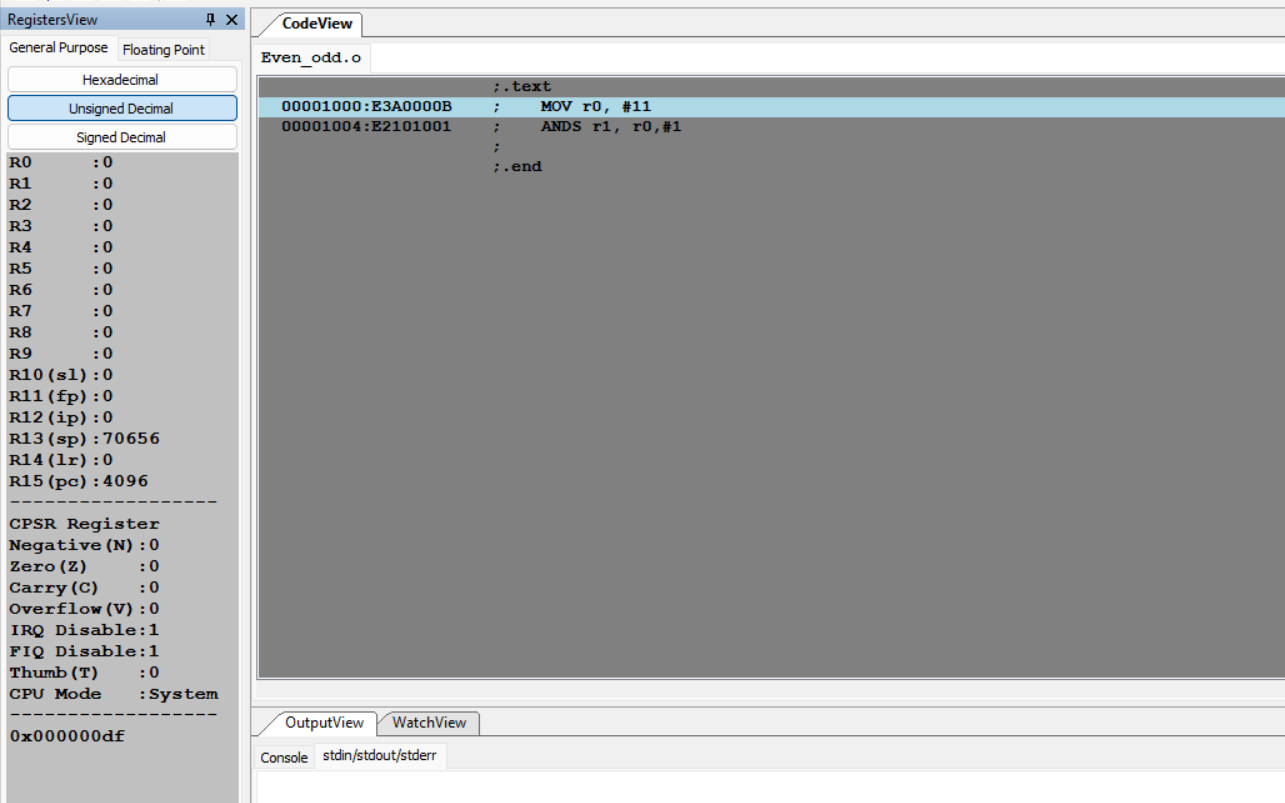
**2. Assignment:**

* 1. Write an ALP using ARM instruction set to check if a number stored in a register is even or odd.

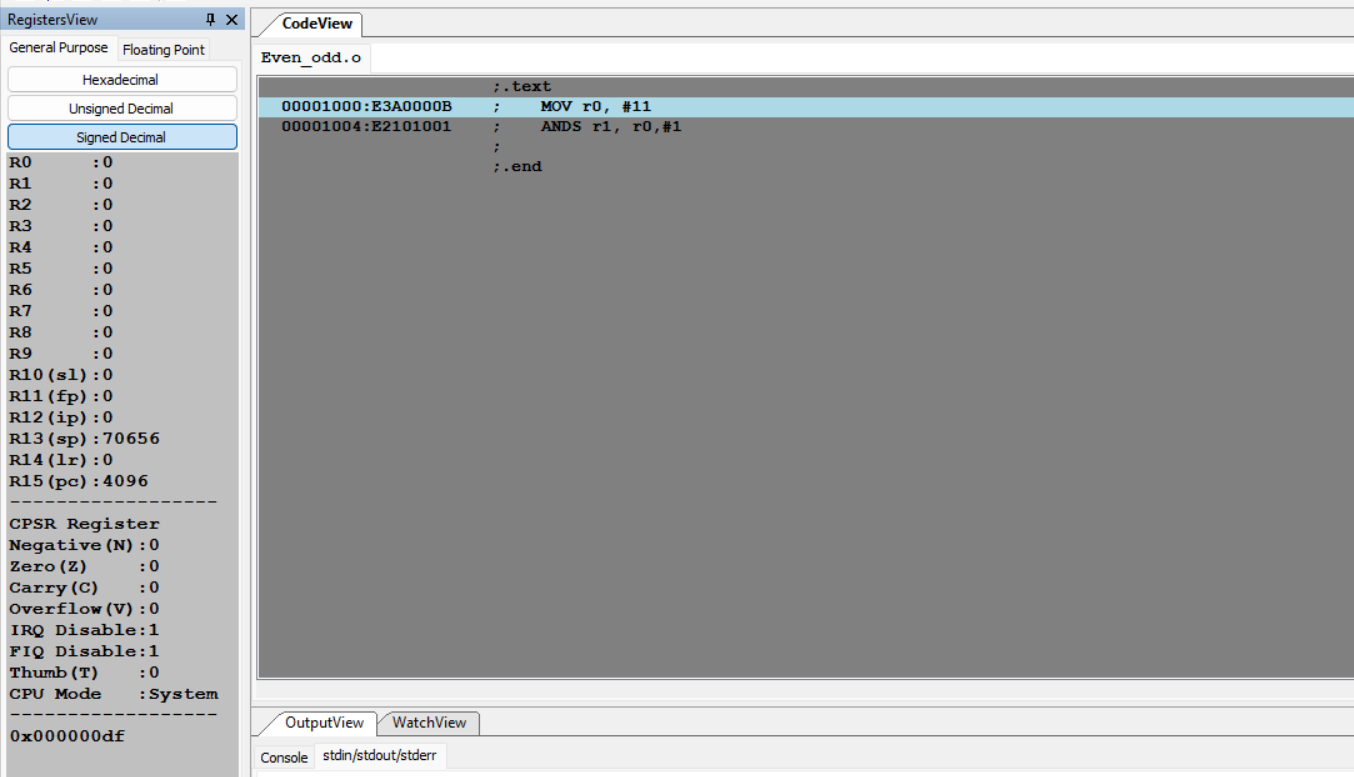
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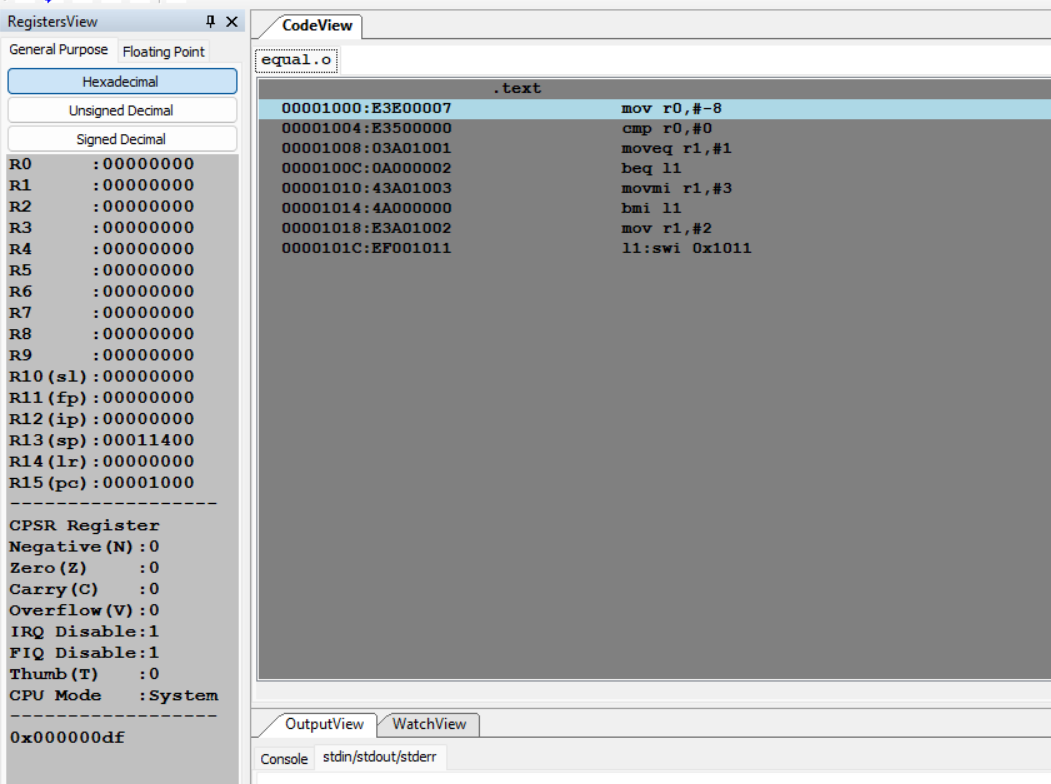


signed Decimal

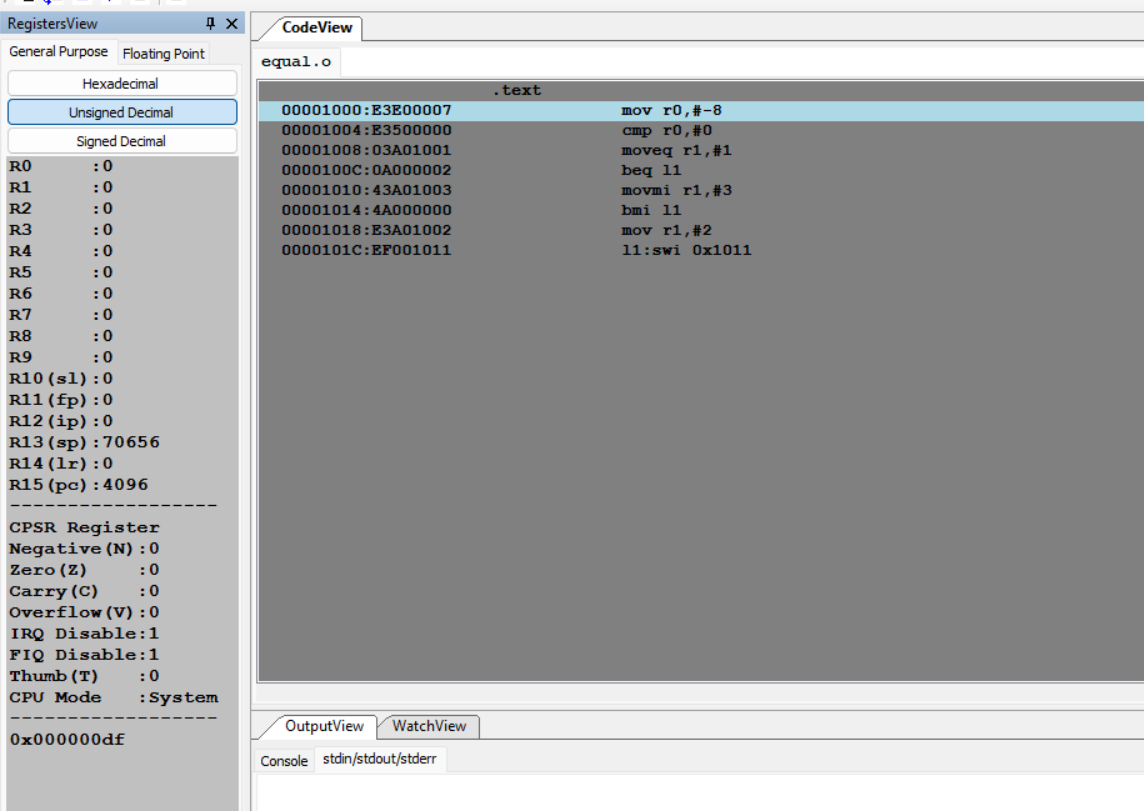


* 1. Write an ALP to compare the value of R0 and R1, add if R0 = R1, else subtract

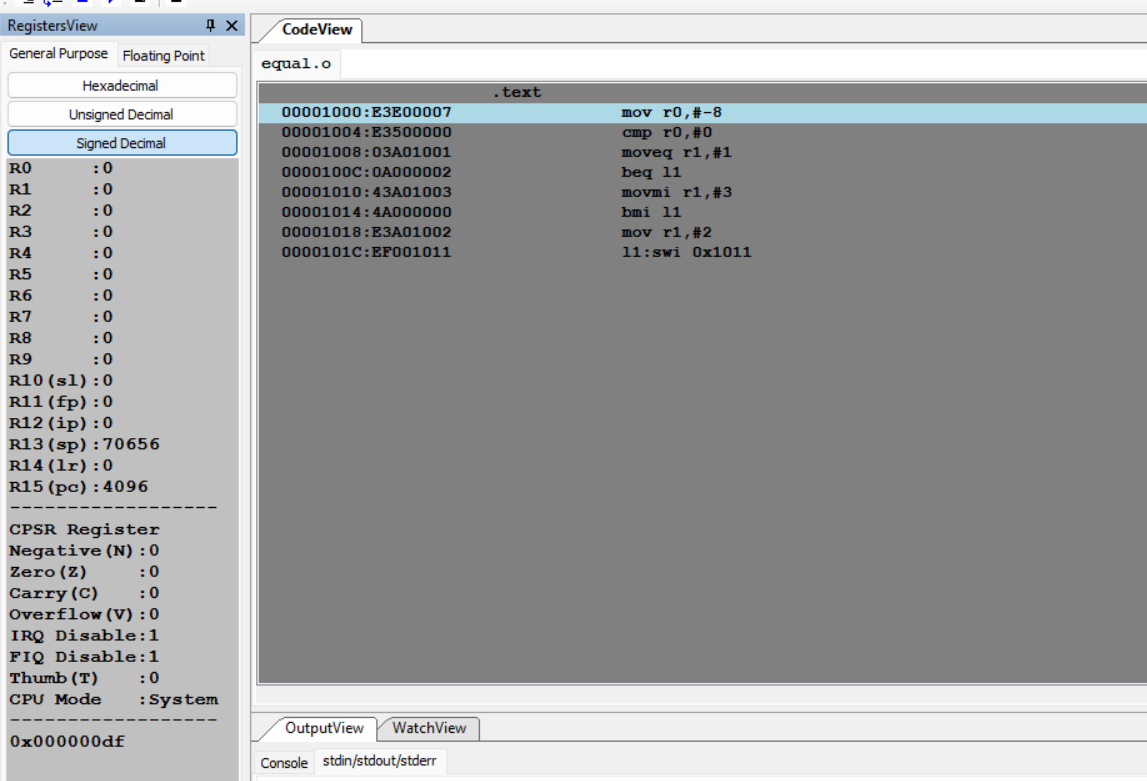
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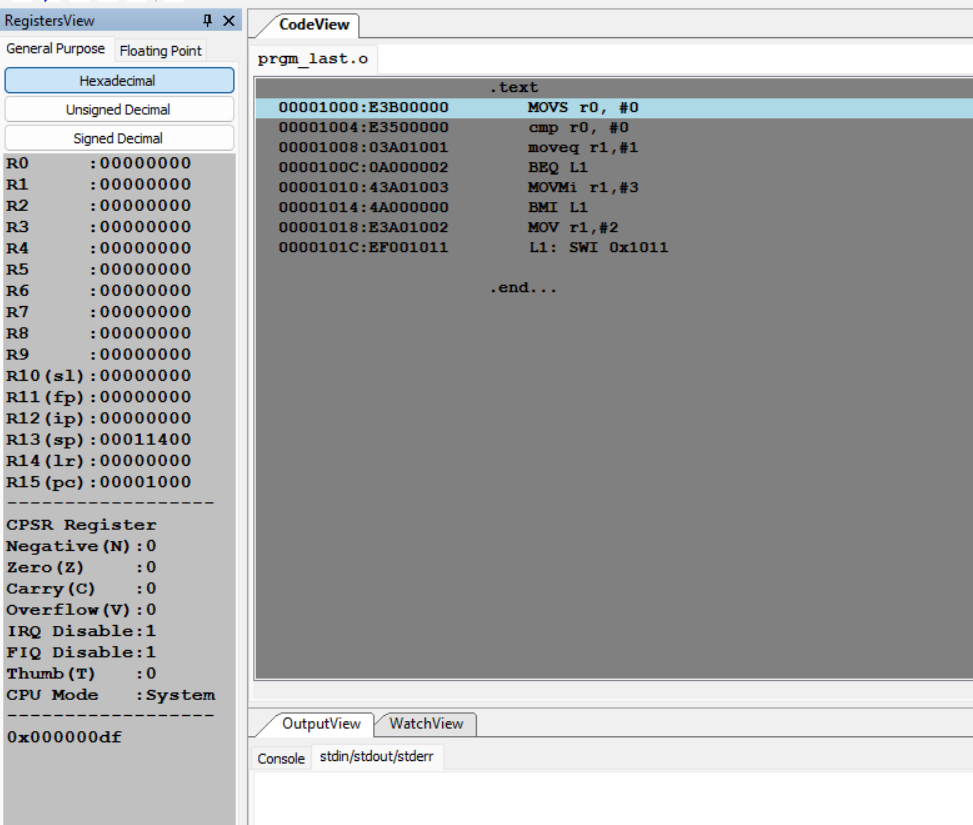


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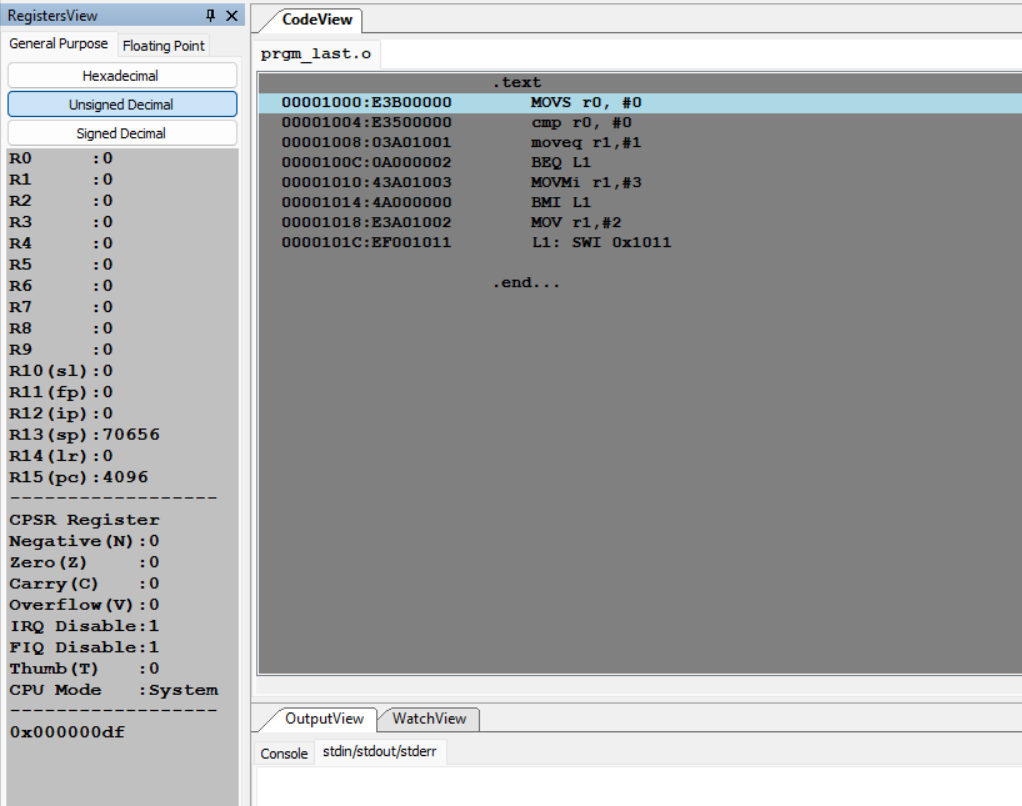


* 1. Based on the value of the number in R0, Write an ALP to store 1 in R1 if R0 is zero, Store 2 in R1 if R0 is positive, Store 3 in R1 if R0 is negative.

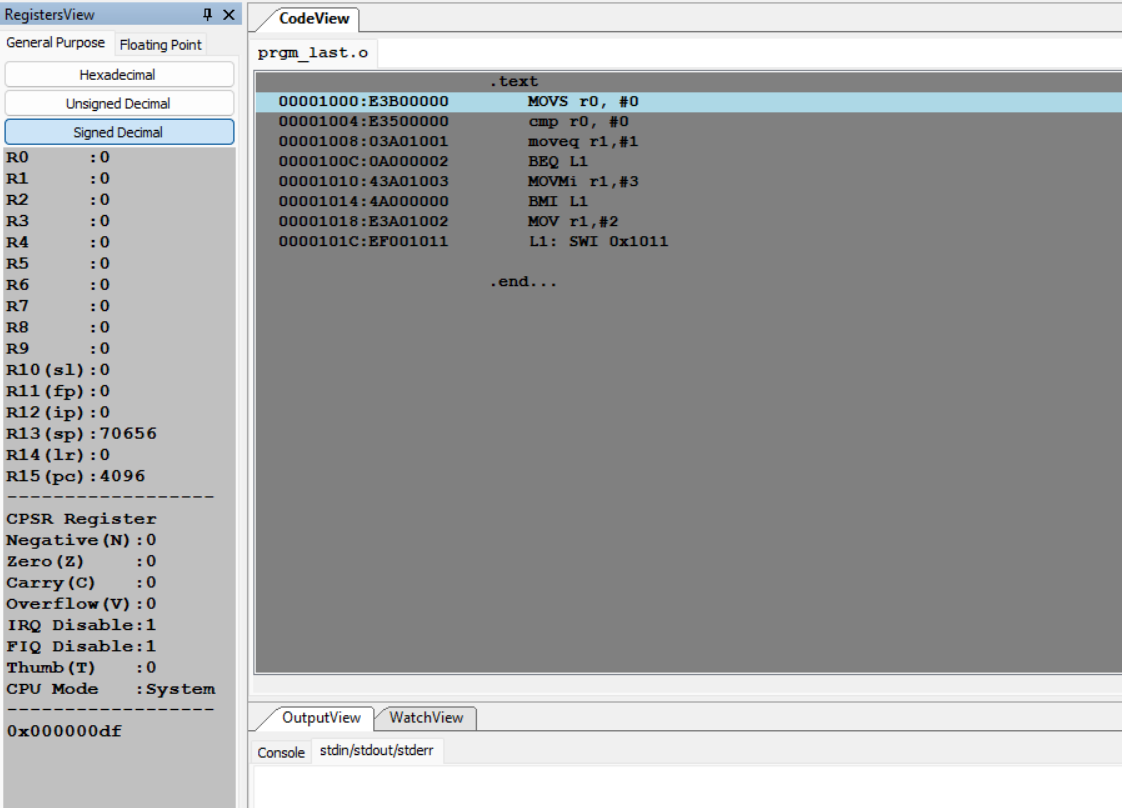
Hexadecimal



Unsigned Decimal



signed Decimal



THANK YOU 😊