University of Dhaka

Department of Computer Science and Engineering

CSE 3113: Microprocessor and Assembly Lab

Report of Tasks from Lab 8

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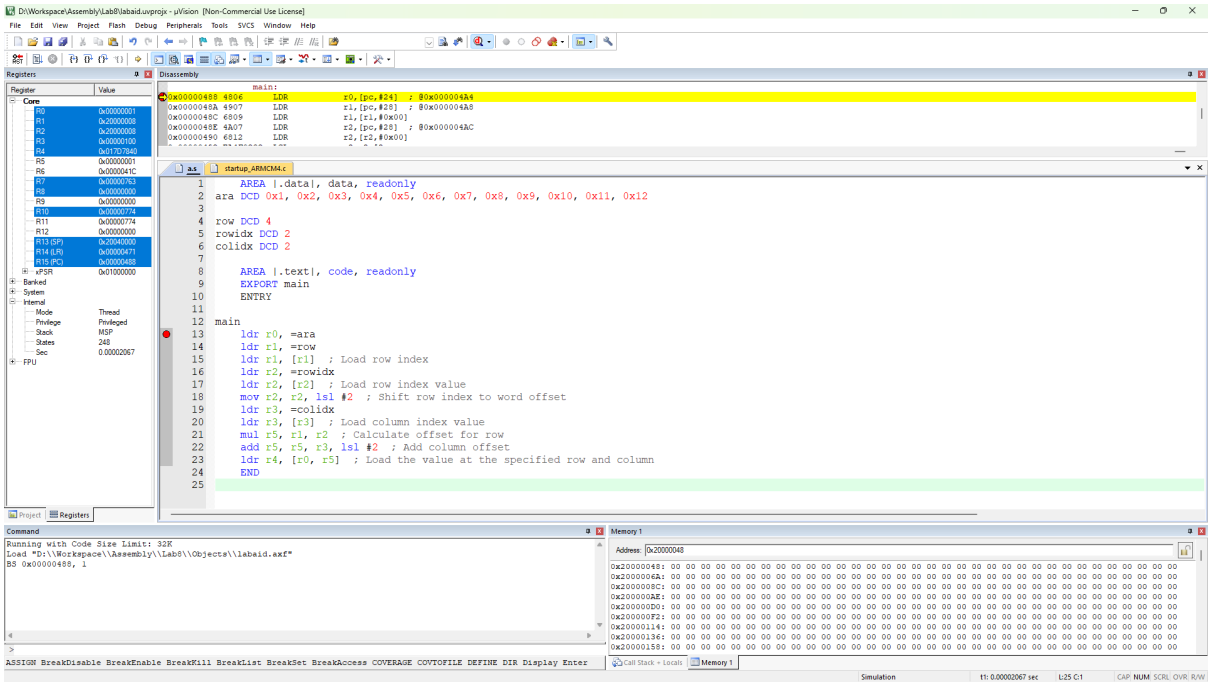
Contents

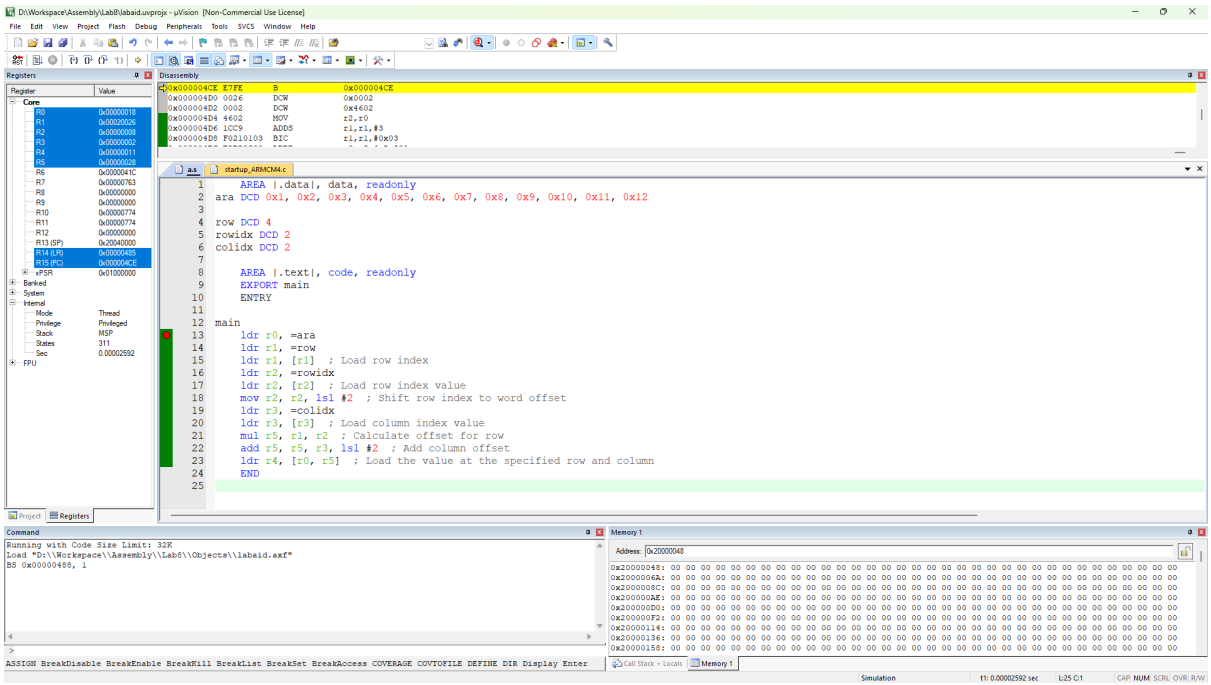
1 Problem 1

Write an assembly language to create a 2D Array. Also use the 2D Array translation formula to access the Array elements making use of register indirect addressing mode.

1.1 Screenshot at the start of execution



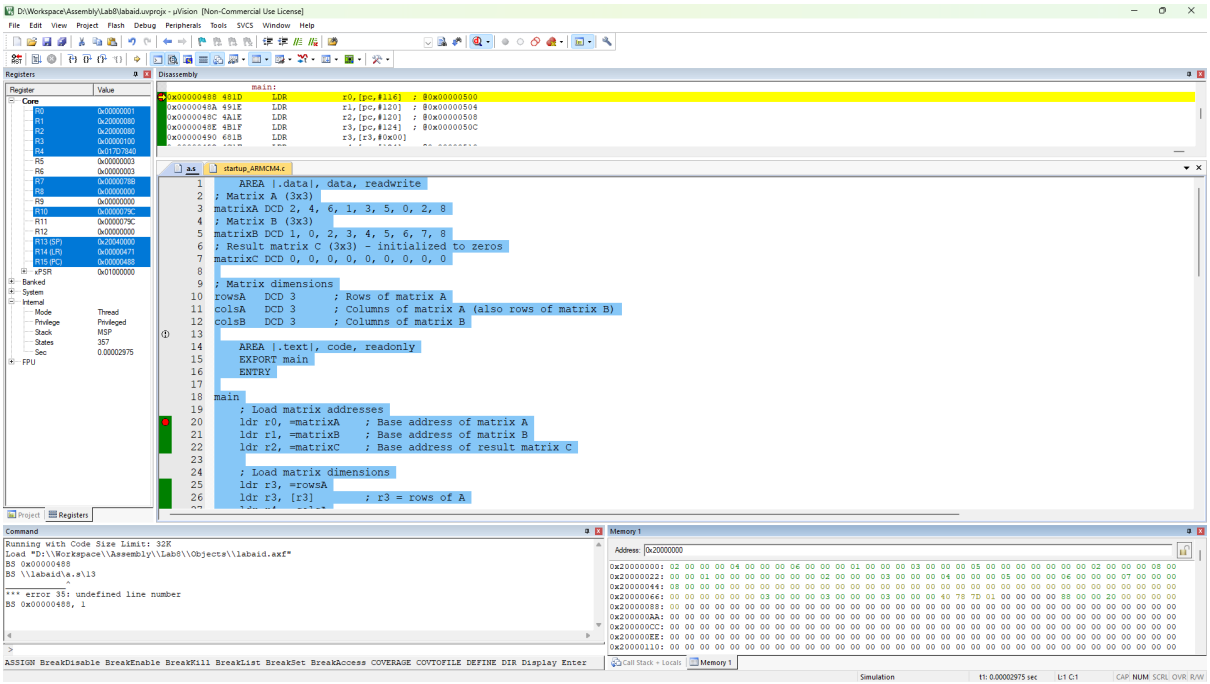
1.2 Screenshot at the end of execution



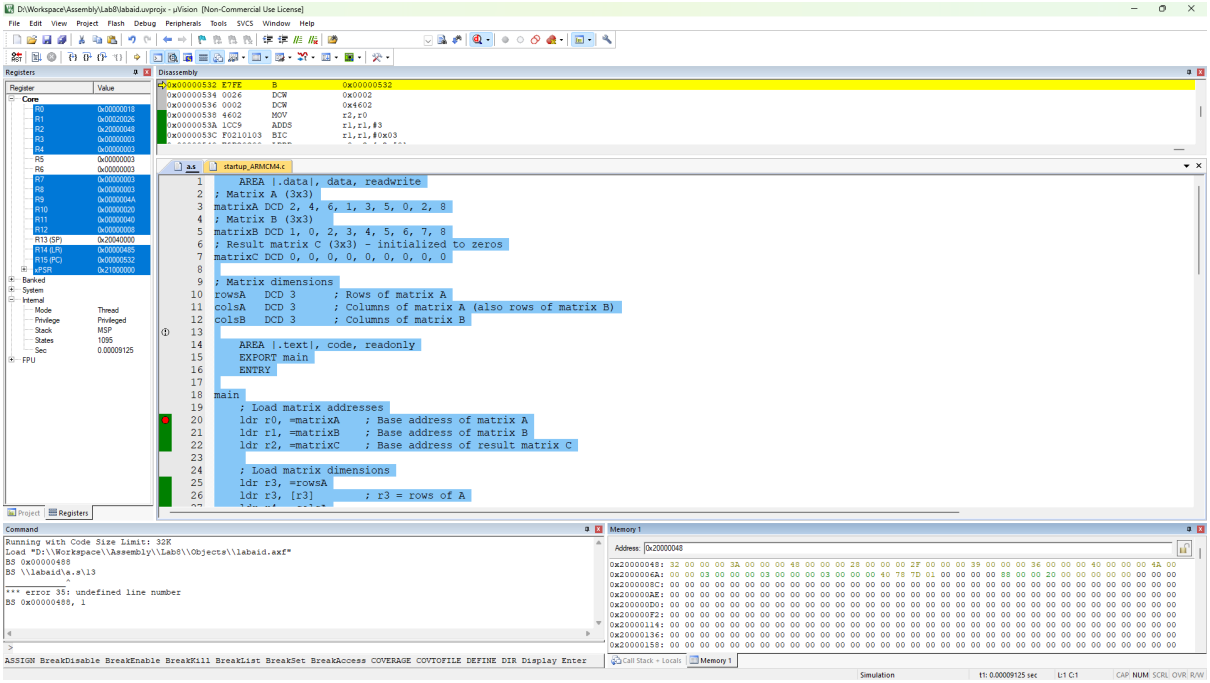
2 Problem 2

Write an assembly language to perform the multiplication of two matrices.

2.1 Screenshot at the start of execution



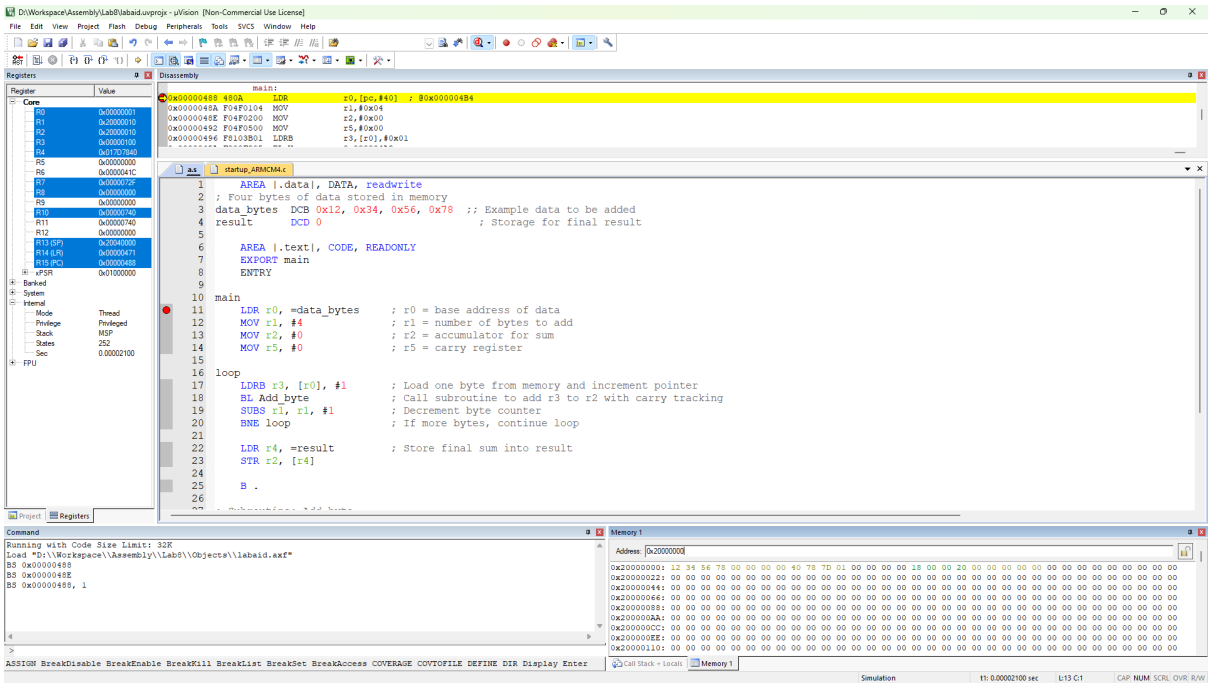
2.2 Screenshot at the end of execution



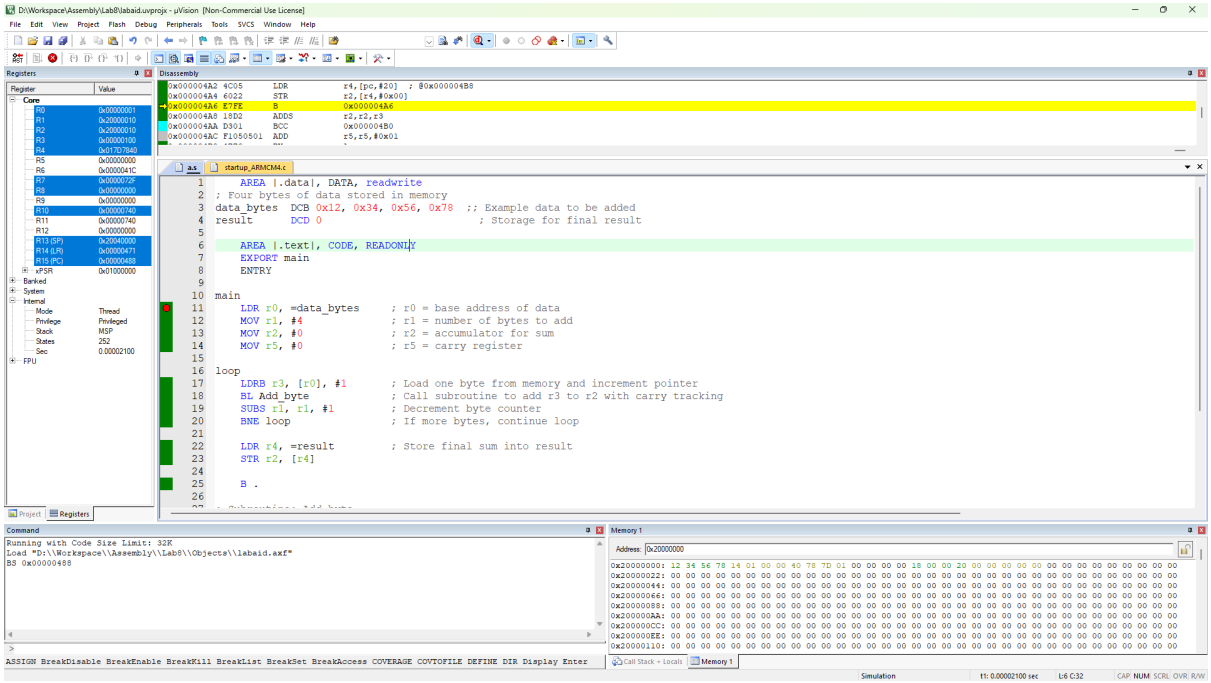
3 Problem 3

Write an assembly language in which four bytes of data are stored in memory location. Add all data bytes and use register r5 to store any carry generated while adding data bytes by calling a function Add_byte

3.1 Screenshot at the start of execution



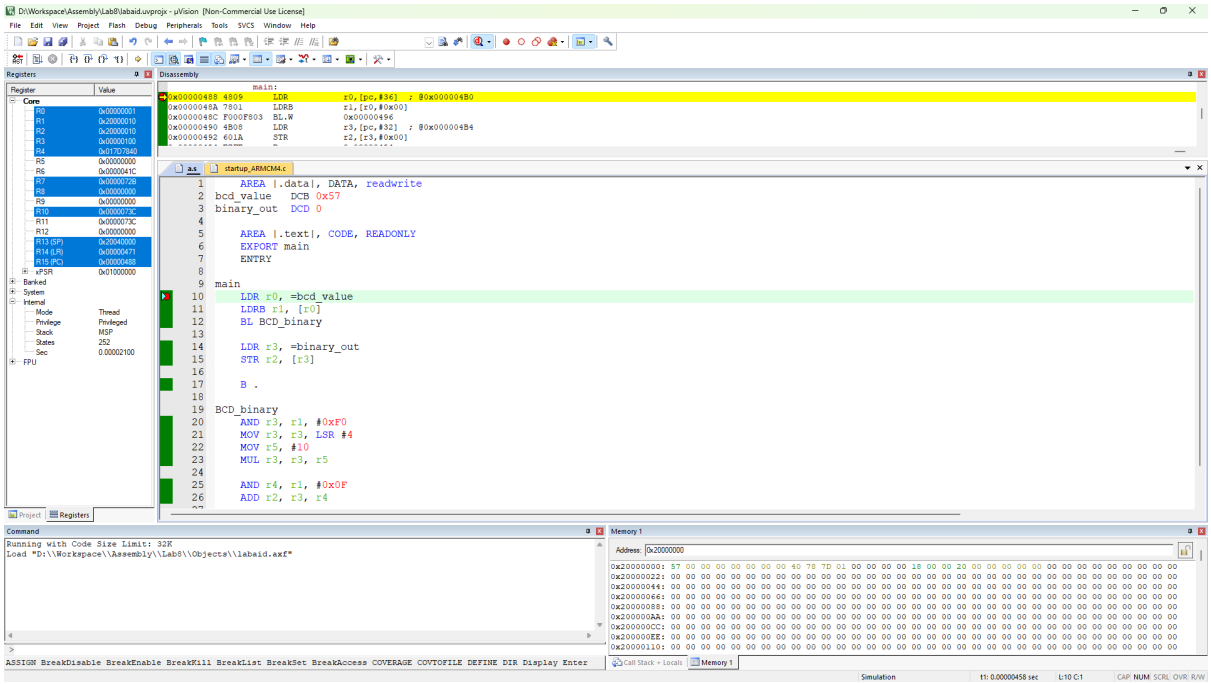
3.2 Screenshot at the end of execution



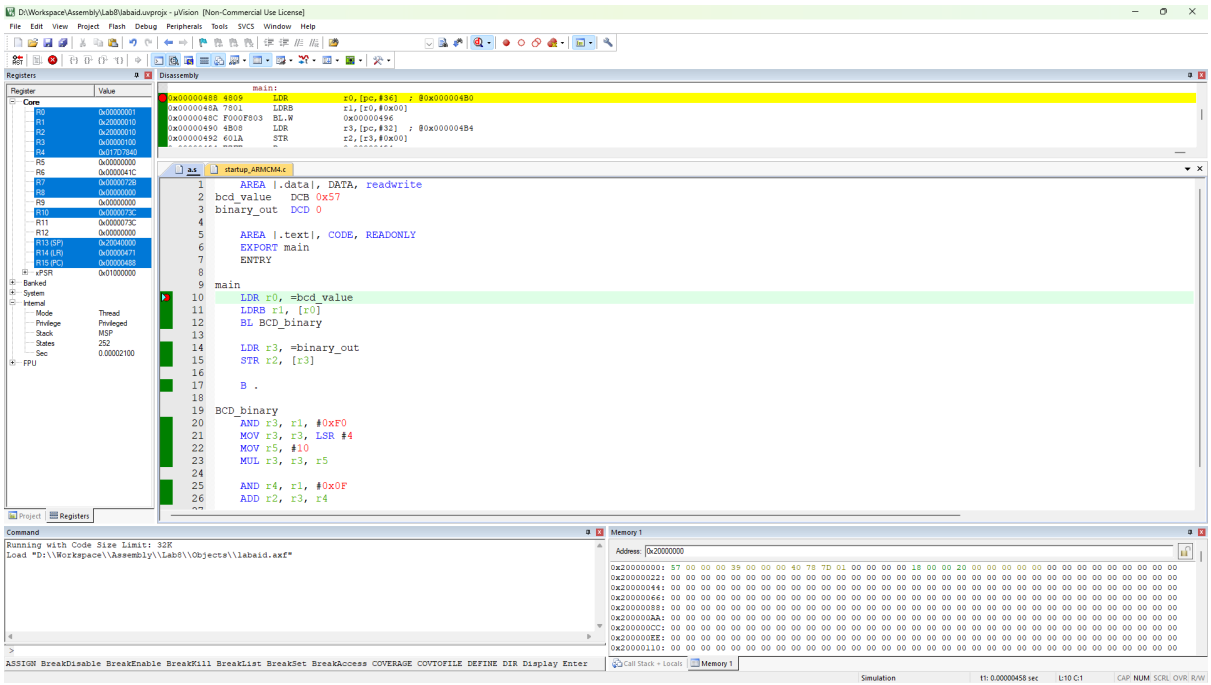
4 Problem 4

Write an assembly language which convert BCD data to Binary data by calling a function BCD_binary.

4.1 Screenshot at the start of execution



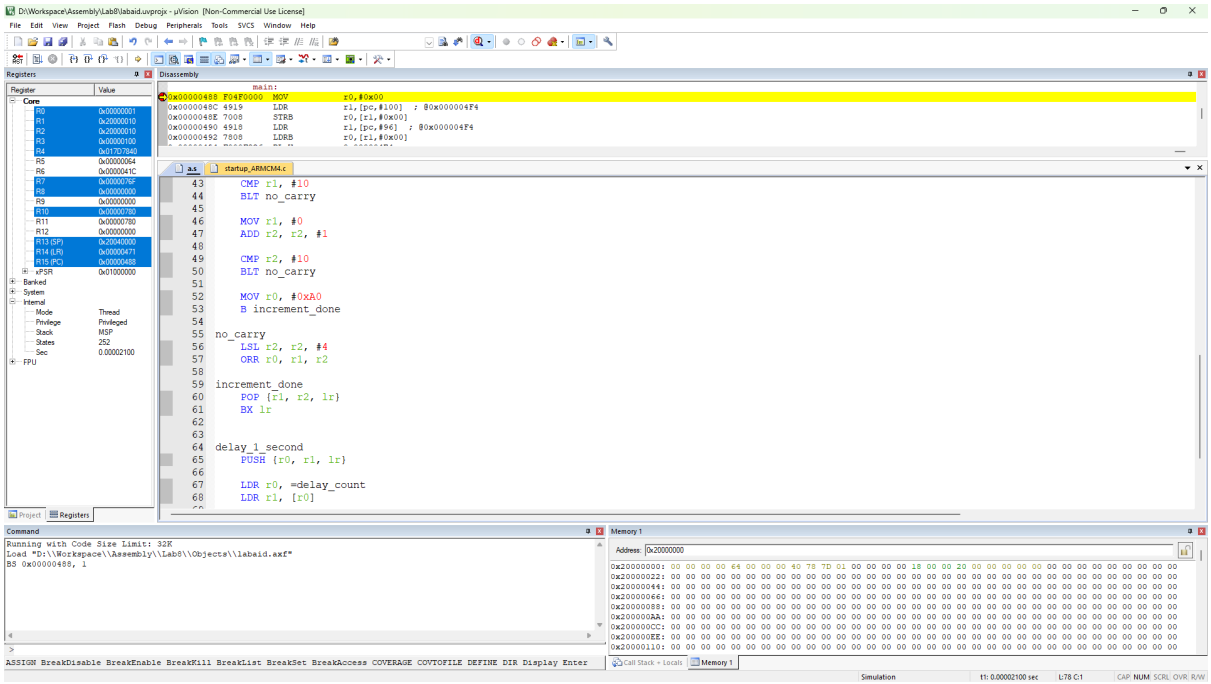
4.2 Screenshot at the end of execution



5 Problem 5

Write an assembly language to implement a counter to count from '00 – 99' (UP-COUNTER) in BCD and also to generate a delay of one second between the counts.

5.1 Screenshot at the start of execution



5.2 Screenshot at the end of execution