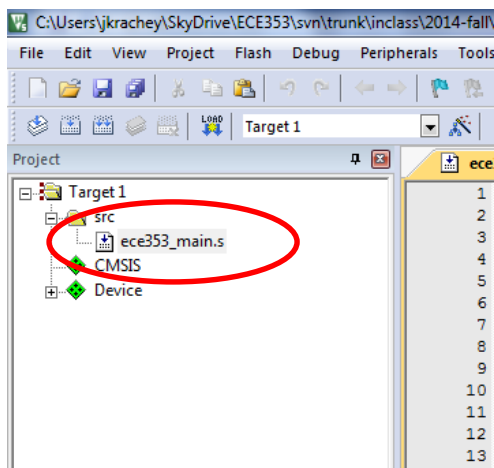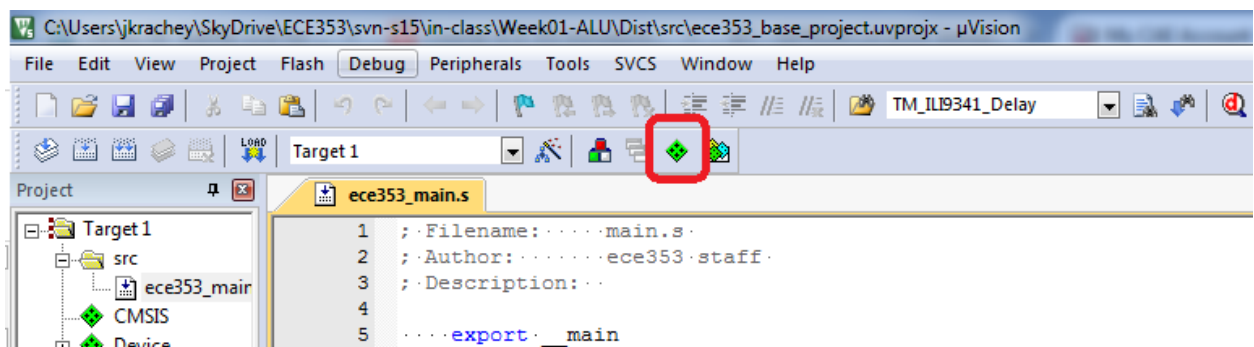# ECE353 In Class Exercise

ARM Assembly – ALU Instructions
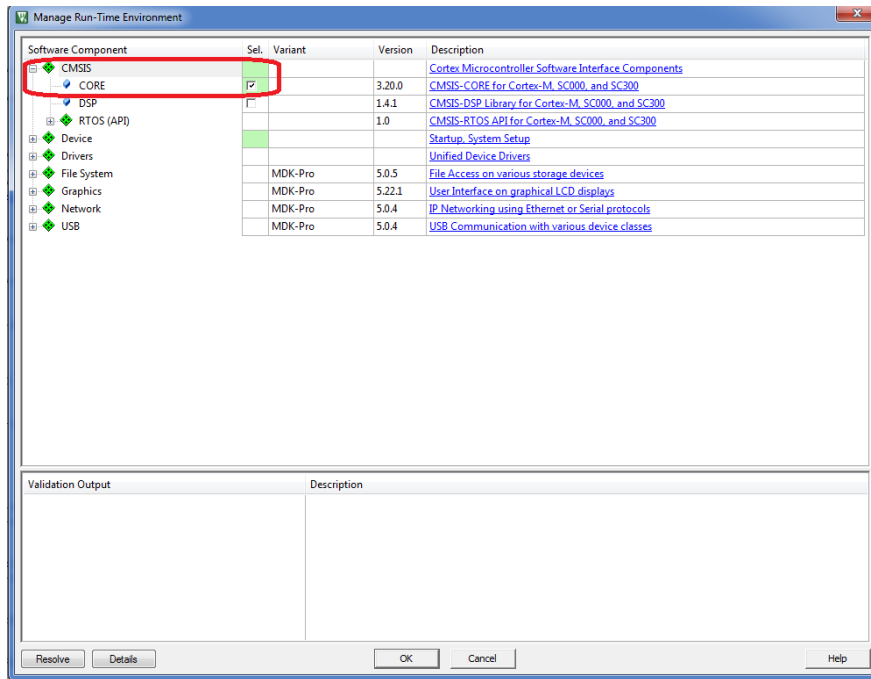
Open the Keil uVision project found in the src directory.

1. Select the Manage Run-Time Environment Button (shown in red).

2. Expand the CMSIS item and place a check mark in to CORE.

3. In ece353_main.s you will find comments in the main routine that will instruct you to perform various arithmetic and logic based instructions. After each comment, add the ARM assembly instructions that carry out the description in the comments. Some comments can be achieved using a single instruction and some will require multiple instructions.

You can find examples of the common ARM assembly instructions using the ECE353 virtual book. You can also use the ARM assembly reference found under the Datasheets link on the course homepage.

Use the debugger and breakpoints to verify the final value stored in R2 is 0x1D8. There is a tutorial on the course website on how to use the debugger found in the Keil IDE.

What to Turn in

You are encouraged to work with your classmates to complete this exercise. **Each student will in their version of ece353_main.s to the course website** . Submissions are evaluated for overall understanding of the concepts. They are not going to be evaluated based on if the code is 100% correct.