## **Homework 1**

(Due date: Sep. 21st)

## PROBLEM 1 (20 PTS)

- Refer to Lecture *Notes Unit 1* in this question.
  - ✓ In a microprocessor system, the chipset usually includes both the northbridge and the southbridge.
    - What is the functionality of the northbridge?
    - What is the functionality southbridge?
  - ✓ In the case of the Intel Atom<sup>TM</sup> D2000/N2000 series, the chipset does not include the northbridge.
    - Where is the functionality of the southbridge implemented?

## PROBLEM 2 (80 PTS)

■ Complete the Activities 2 and 3 in the High-Performance Embedded Programming with the Intel® Atom<sup>TM</sup> platform  $\rightarrow$  Tutorial 1

1

- $\checkmark$  Activity 2 Fibonacci Series: Execute the application so that it prints the Fibonacci numbers  $F_0$  to  $F_{15}$ . Provide a screenshot of the execution in the Terminal.
- $\checkmark$  Activity 3 SAXPY: Compile the application using the Makefile. Execute the application (use #define N 2000). Provide a screenshot of the execution (the part where the execution time is displayed) in the Terminal.

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