Introduction to Computer Systems and Platform Technologies

Week 2 Practical

System Basics

Note that many of the final examination questions will be based on the *tutorial and practical questions*.

Practicals

Practicals for this course involve questions for individual solution with help from the tutor and other students during this hour of online chat. Your own computer will provide the access to various tools needed for the practical hour. It is expected that you do not finish all the questions in this session, as some people can work a lot faster than others, and it is better to be slow and methodical (and correct), than to speed through with limited understanding.

In order to answer these questions, you may be required to look up some information on your own.
You are encouraged to discuss these questions and share useful links you've found with others in the discussion forums.

Practical Questions

Discussion

Discuss the links provided for the week on Canvas. You should all try to get a conversation going on the topics on Canvas

Question 1

i. As a follow on from Tutorial 2, Question 1, explain why 25 years ago, IT programming students in China learning Pascal would have used an ASCII table with no Mandarin characters.

ii Find a coding table that they may be using to print Java/Jython in Mandarin today?

Question 2 Components of an "old" motherboard

If you look at the picture of the motherboard in the "System Architecture" topic, you'll notice that the northbridge chip has a fan, but the southbridge doesn't need one. Can you think of why?

Question 3

As IC manufacturing processes improved, it gradually became possible to integrate more features onto fewer chips.

- As transistor density afforded even further integration, **high-speed expansion interfaces were placed directly onto the CPU** - typically used for the graphics system, the most performance-dependent type of system expansion.

Now there was a time when RISC architecture threatened to overtake the more traditional CISC architecture. Investigate the properties of RISC and CISC and why this did not happen in the end.

RISC VS CISC – Comparison (Introduced in week 2 and developed more in week 4- Process(or) Chapter)