Ning Chen on Self-learning skills:

If you can ask right questions, more than half of the learning is done.

CPSC 440 Project questions that are related to different types of memory devices:

Q. What is ROM and RAM?

A. ROM – Read Only Memory and RAM – Random Access Memory.

Q. Is an ROM also an RAM?

A. Yes.

Q. Is an RAM also an ROM?

A. No.

Q. Is the name of ROM (or RAM) good enough?

A. No, but , we are stuck with them.

Q. What is a more proper name for RAM?

A. Volatile read-and-write memory.

Q. What is a more proper name for ROM?

A. Non-volatile read only memory.

Q. What do you mean "volatile"?

A. A volatile memory is a device that loses its data/contents when the power is removed.

Q. What do you mean "non-volatile"?

A. A non-volatile memory is a device that retains its data/contents even there is no power.

Q. Can a computer system function with ROM only?

A. No. Why? (try to fill your answer here)

Q. Can a computer system function with RAM only?

A. No. Why? (try to fill your answer here)

Q. Can you perform reading and writing on a flash memory?

A. Yes.

Q. Is flash memory volatile?

A. No. Flash memory is non-volatile.

Q. Can a computer system function with flash memory alone (no ROM, no RAM)?

A. Theoretically yes. But, it is not desirable. Reading and writing flash memory is very slow. The flash memory can only go through limited number of write cycles (about 100K times).

Q. It seems to me that a small computer system can function with ROM and RAM only. Do we have to add flash memory to this small computer system?

A. You don't have to add flash memory to your small computer system. But, it is highly desirable to have flash memory on board. Why? (try to fill your answer here)