Define software

Why is it hard to develop software?

- That’s why we have software engineering: a set of processes, methods and tools

Netsourcing: e.g., Google Docs

Ubiquitous computing: BitcoinCard

Grid computing/high performance clusters: scientific computing

- Amazon EC2

Open source: Linux

Legacy software: using languages like Cobol, Fortran

Software has taken a big part of our lives => there is a lot at stake
Process Models

- Linear vs. incremental/evolutionary.
- Prototyping needed when all requirements cannot be obtained without an example. 1st prototype thrown away?
- Take home message: set milestones for iterative production
- Aspect-oriented development:
  - Aspects are horizontal slices across a vertical development process.
  - Example: interfaces, security, persistency, memory management, etc.
- Unified process: nontraditional approach; enter agile computing (Ch 3)