CS220

Software Maintenance
Definition

• Software maintenance
  – The process of changing a software system after it has been delivered
Reasons behind maintenance

• Why delivered software needs change?
Reasons behind maintenance

• Why delivered software needs change?
  – Fault repair
  – Platform adaptation
  – System enhancement
Maintenance is important

• 60%--80% of overall IT cost
  – Software is too expensive to discard after one version
A big picture

• Initial development
• Software evolution
• Software servicing
• Phase-out phase
A smaller picture --- evolution process

Software Evolution

- Change Request
- System Release
- System Update
- Impact Analysis
- Release Planning
A smaller picture

• What happened during “software update”?  
  – Non-agile way  
  – Agile way
Software reengineering

- Redocumenting
- Structure/architecture refactoring
- Programming language translation
- Data reengineering
When to stop supporting a software
When to stop supporting a software

- Business value
- Maintenance expense