CSE 333 – Software Engineering

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Lecture 05

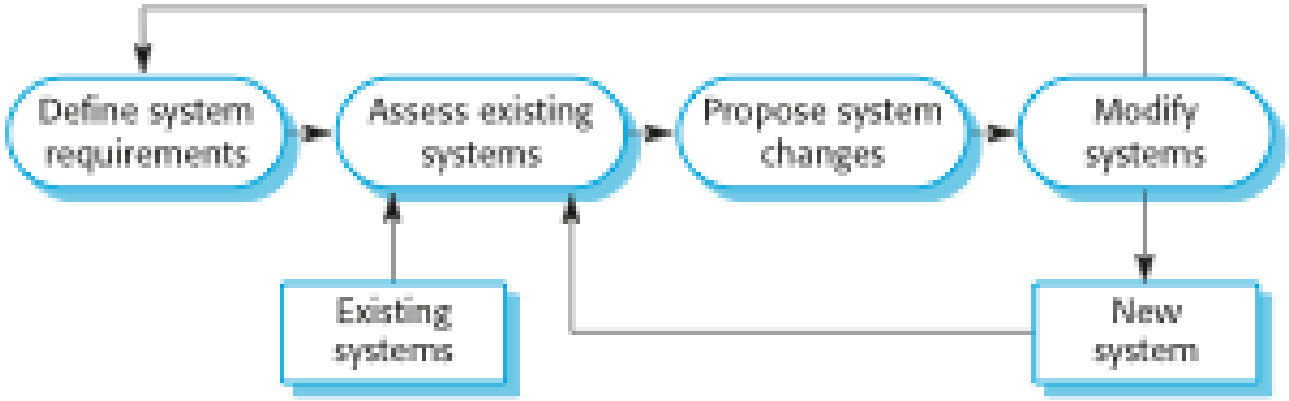
Outline

- Software process models
- Software process activities
- Coping with change
- The Rational Unified process

Software evolution

- Software is inherently flexible and can change.
- As requirements change through changing business circumstances, the software that supports the business must also evolve and change.
- Although there has been a demarcation between development and evolution (maintenance) this is increasingly irrelevant as fewer and fewer systems are completely new.

System evolution



Key points

- Software processes are the activities involved in producing a software system. Software process models are abstract representations of these processes.
- General **process models** describe the organization of software processes. Examples of these general models include the 'waterfall' model, incremental development, and reuse-oriented development.

Key points

- Requirements engineering is the process of developing a **software specification**.
- Design and implementation processes are concerned with transforming a requirements specification into an **executable software system**.
- Software validation and verification is the process of **checking that the system** conforms to its *specification and that it meets the real needs of the users* of the system.
- Software evolution takes place **when you change existing software systems to meet new requirements**. The software must evolve to remain useful.

Thank you!!