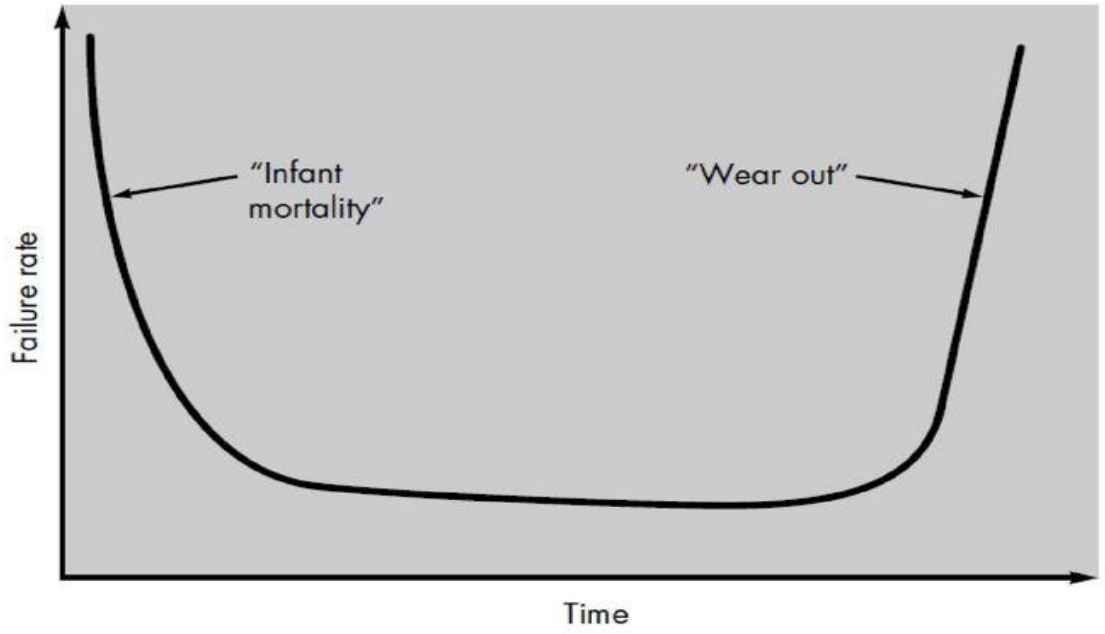
CHARACTERISTICS OF SOFTWARE & SOFTWARE ENGINEERING

1. Software is engineered, not constructed.

2. Software does not wear out but it deteriorates.

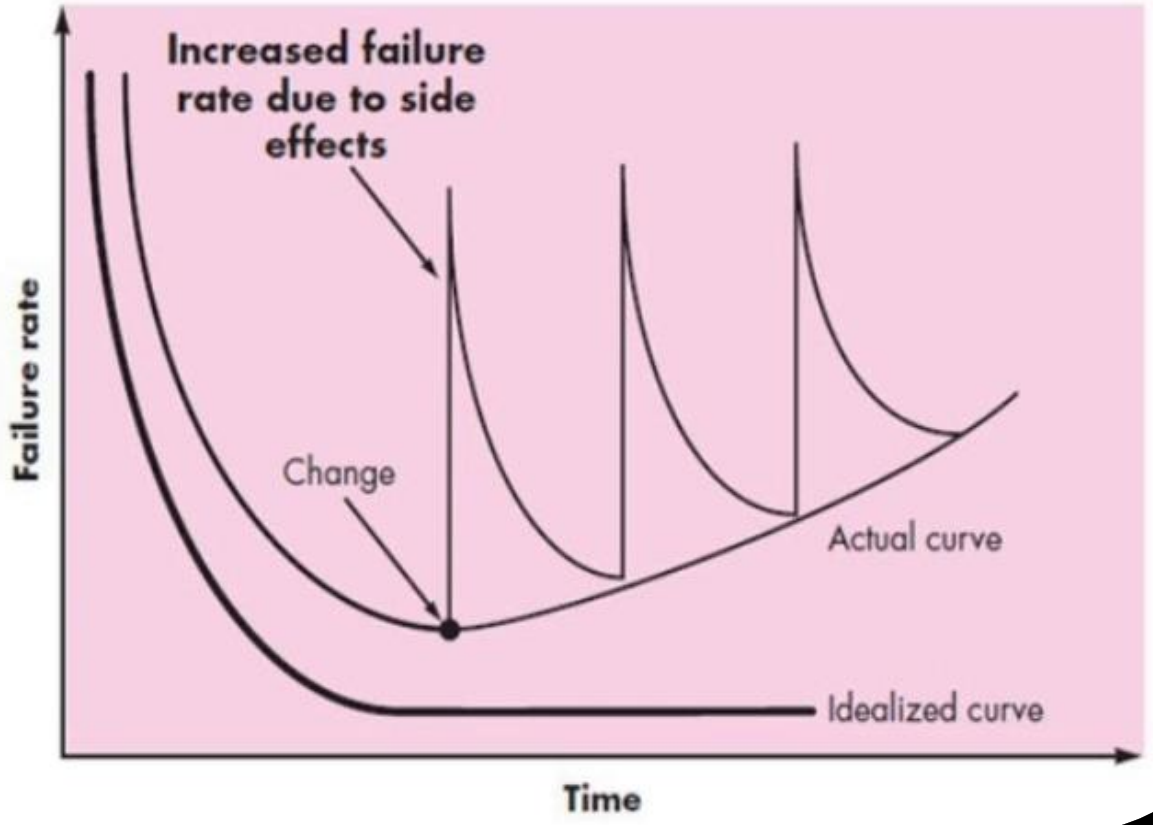
Failure curve for hardware

FIGURE 1.1
Failure curve for hardware



2. Software does not wear out but it deteriorates.

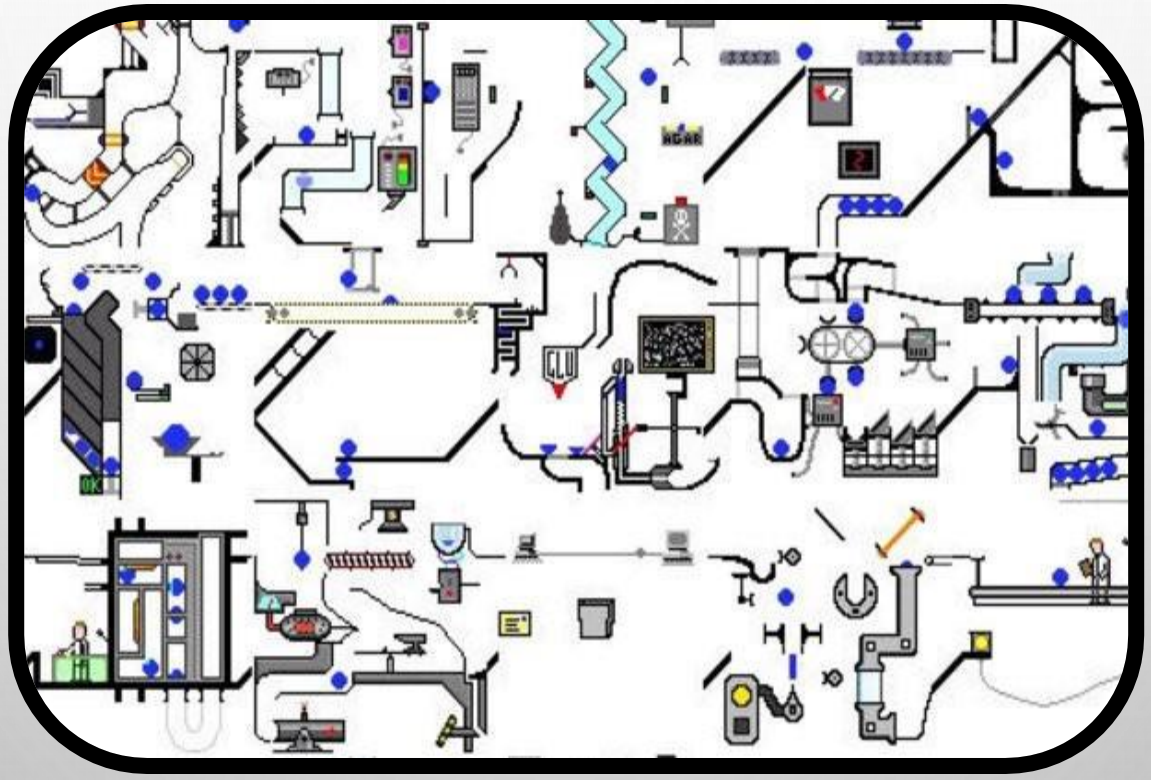
SOFTWARE – Failure Curve



3. “Although industry is moving toward component based development, most software continues to be custom built.”

4. “Software is complex”.

“Software is an abstraction of real life”.



WHY SOFTWARE ENGINEERING

- Organized, systematic, and controlled software development
- Software engineering is concerned with theories, methods and tools for professional software development
- Customer wants low cost and short time for software development

UNDERSTANDING OF SOFTWARE ENGINEERING'S DEFINITION

- Software engineering is an engineering discipline which is concerned with all aspects of software production.
- IEEE [IEE93]:

  Software engineering: (1) the application of systematic, disciplined, quantifiable approach to the development, operation, and maintenance of software; that is, the application of engineering to software. (2) the study of approaches as in (1).

4. BASIC CONCEPTS

- Software itself
- Software development life cycle
- System development life cycle
- Computer aided software engineering
- Software project management
- Software process
- Software quality assurance
- Software configuration management
- Software maintenance

THANK YOU.