CS 301
Software Engineering
Module - 35

Eswaran Narasimhan

At the end of the session, you will be able to:

- Understand what legacy systems are
- Identify the types of legacy systems
- Understand the problems in legacy systems
- Understand why legacy systems exist
- Understand how legacy systems are maintained

What are legacy systems?

- Outdated software
  - They are continued to be used by the organization
  - They can be difficult to operate and maintain
- Outdated hardware
- Outdated Programming Languages

- Assembly language
- A Programming Language
- COBOL

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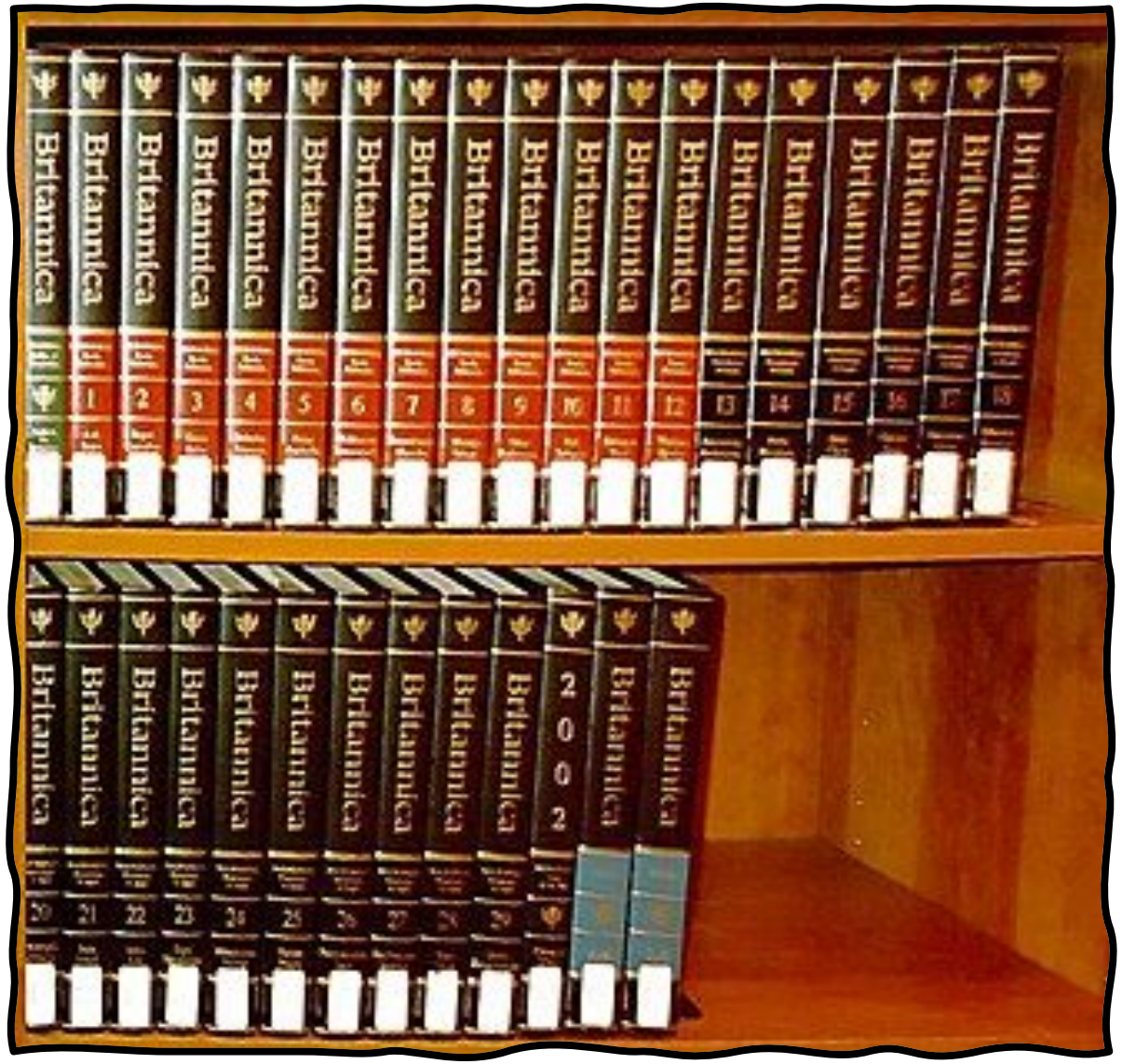
Types of Legacy Software

- End of life (EOL)



The Encyclopedia Britannica stopped printing its 32-volume print edition in 2012 after 244 years

Types of Legacy Software

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- Inability to scale

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- Heavily patched software

Types of Legacy Software

- End of life (EOL)
- Inability to scale
- Heavily patched software
- No one knows how to maintain it

Problems in Legacy Software

- **Old code**
  - The code used in legacy systems is often bulky, lengthy, and incompatible with modern systems.
- **High maintenance costs**
  - Maintenance can be expensive, and the cost may be out of reach for most enterprises.
- **Data silos**
  - Legacy systems were often not designed to integrate with each other, and many legacy software solutions can't integrate with newer systems.
- **Security risks**
  - Legacy systems that are no longer supported may not receive updates and patches to address security vulnerabilities.

Why Legacy Software exists

- ❑ Reliable enough
- ❑ Service continuity
- ❑ Update challenges
- ❑ Insufficient funding
- ❑ Maintenance costs

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Managing Legacy Software

- Hire developers

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- Outsourcing

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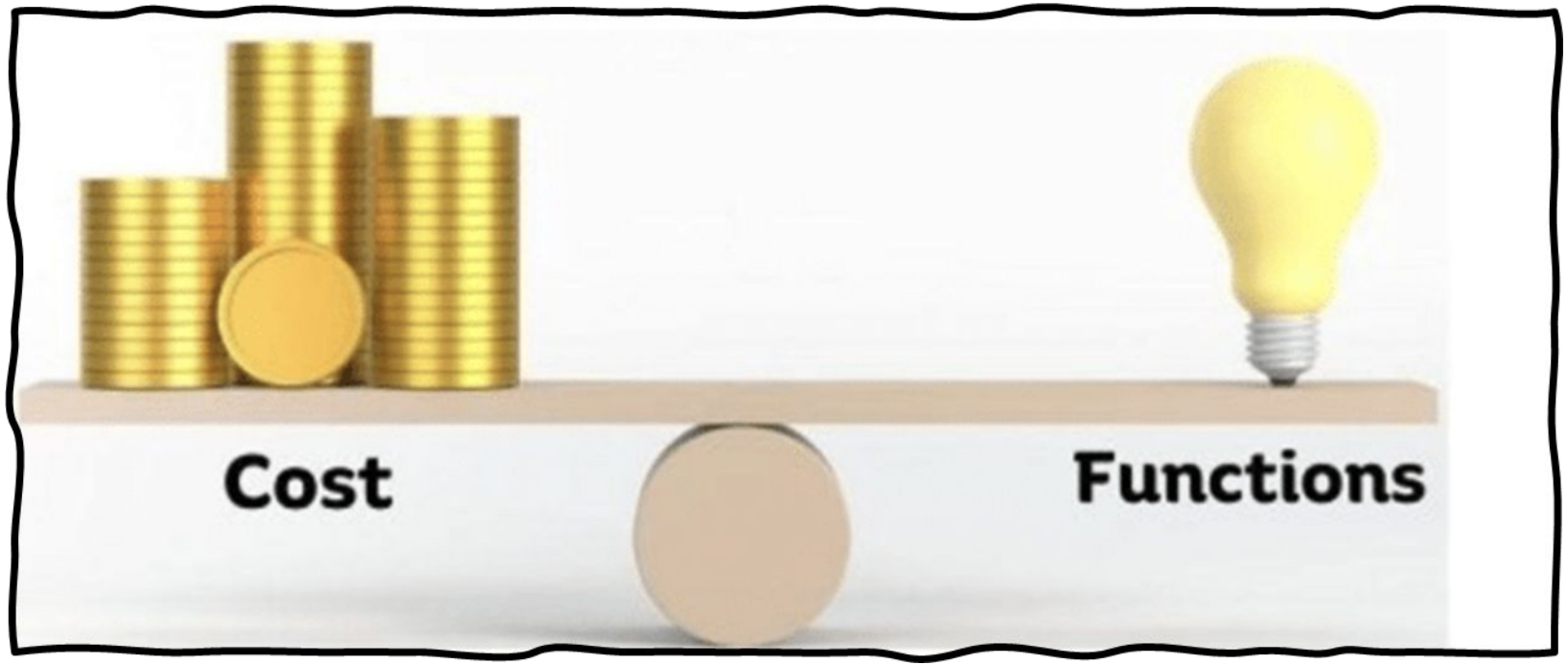
- Hire developers
- Outsourcing
- Monitor and update

Managing Legacy Software

- Hire developers
- Outsourcing
- Monitor and update
- Run a cost-value analysis



Managing Legacy Software

- Hire developers
- Outsourcing
- Monitor and update
- Run a cost-value analysis
- Consider a software upgrade

Managing Legacy Software

- Hire developers
- Outsourcing
- Monitor and update
- Run a cost-value analysis
- Consider a software upgrade
- Consider custom-built enhancements

We covered the following

- Understand what legacy systems are
- Identify the types of legacy systems
- Understand the problems in legacy systems
- Understand why legacy systems exist
- Understand how legacy systems are maintained