BCA Optimized Notes by Yash

Semester IV - Software Engineering

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Unit 1 - Chapter 1

Problems in Software Development

Common Issues

- The final software does not fulfill the needs of the customer.
- Hard to extend and improve. If you want to add functionality later, it's mission impossible.
- Bad documentation.
- Bad quality; frequent errors and hard to use.
- More time spent and bigger cost than expected.

Software Engineering

Definitions

- The study and application of methodologies to develop quality software that fulfill user needs is known as software engineering.
- Software engineering is a systematic, disciplined and cost-effective technique for software developers.
- IEEE defines software engineering as "The application of a systematic, disciplined and quantifiable apporach to the development, operation and maintenance of software."

Why Is It Required?

- To manage large software.
- For more scalability.
- Cost management.
- To manage the dynamic nature of software.
- For better quality management.

Objectives

- **On Time**
  - The software should be delivered at the exact date and time.
- **Reliable**
  - The software shouldn't crash.
- **Complete**
  - The software should have good documentation and fulfill customer needs.