Computer Architecture and Operating Systems

Course Description

The architecture of computers and the inner workings of operating systems are fundamental concepts of computer science. This course introduces this topic, including an overview of the various types of computer hardware and an overview of assembly languages, which form a link between computer architecture and operating systems.

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   1. Historical Overview
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   3. Semiconductor Technology
   4. Hardware Design and Hardware Description Languages
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   2. Instruction Set Architecture
   3. Microarchitecture
   4. System Design
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   2. Mainframes
   3. Servers
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   2. Introduction to Programming in Assembly Languages
   3. Compiling and Linking
   4. Application of Assembly Languages
5. Operating Systems Basics
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   4. Basic Concepts of Mobile Operating Systems