Vocational English III (Mesleki Yabancı Dil III)

Week 5

22.10.2024

Engineering Faculty
Computer Engineering

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This week we will work on

ENGLISH FOR OPERATING SYSTEMS & READING-LISTENING ACTIVITIES

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-1

Kernel (noun) → 

Example: "The kernel is responsible for managing system resources and communication between hardware and software."

Process (noun) → 

Example: "Each program running on your computer is considered a separate process by the operating system."

Thread (noun) → 

Example: "A process can have multiple threads, each performing different tasks."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-2

Scheduler (noun) → 
Example: "The scheduler decides which process runs at any given time."

Memory (noun) → 
Example: "Operating systems manage memory to allocate space for running programs."

File System (noun) → 
Example: "The file system organizes and stores data on a disk."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-3

Driver (noun) → 

Example: "Device drivers allow the operating system to communicate with hardware components."

Multitasking (noun) → 

Example: "Modern operating systems support multitasking, allowing several programs to run simultaneously. "

Boot (verb) → 

Example: "The operating system boots the computer by loading essential files from the hard drive."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-4

Interface (noun) → 

Example: "The user interface provides a way for users to interact with the operating system."

Virtual Memory (noun) → 

Example: "Virtual memory allows the operating system to use disk space as additional RAM."

Interrupt (noun) → 

Example: "An interrupt is a signal that informs the operating system that an event needs immediate attention."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-5

Buffer (noun) → 

Example: "The buffer temporarily holds data before it is processed or transferred."

Paging (noun) → 

Example: "Paging is a memory management scheme used to handle large amounts of data."

Deadlock (noun) → 

Example: "A deadlock occurs when two or more processes are unable to proceed because each is waiting for the other to release resources."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-6

Semaphore (noun) → 
Example: "Semaphores are used to control access to shared resources in concurrent processing."

Cache (noun) → 
Example: "The CPU uses a cache to store frequently accessed data for faster processing."

Queue (noun) → 
Example: "The operating system uses a queue to manage tasks waiting for CPU time."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-7

Permissions (noun) → 

Example: "File permissions determine who can read, write, or execute a file."

Command (noun) → 

Example: "Users interact with the system through a command-line interface by typing commands."

Shell (noun) → 

Example: "The shell interprets user commands and communicates them to the operating system."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-8

Fork (verb) → 

Example: "When a process forks, it creates a new process that is a copy of itself."

Daemon (noun) → 

Example: "A daemon is a background process that performs tasks without user interaction."

Swap (verb) → 

Example: "The operating system swaps data between RAM and the hard drive to manage memory."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-9

Privilege (noun) → 

Example: "Operating systems assign different privilege levels to users and processes for security."

Load (verb) → 

Example: "When you open an application, the operating system loads it into memory."

Core (noun) → 

Example: "Modern CPUs have multiple cores, allowing them to run several processes simultaneously."

INTRODUCTION TO OPERATING SYSTEMS VOCABULARY-6

Latency (noun) → 

Example: "Low latency is critical for real-time operating systems used in embedded systems."

Threading (noun) → 

Example: "Threading allows a program to run multiple tasks concurrently within the same process."

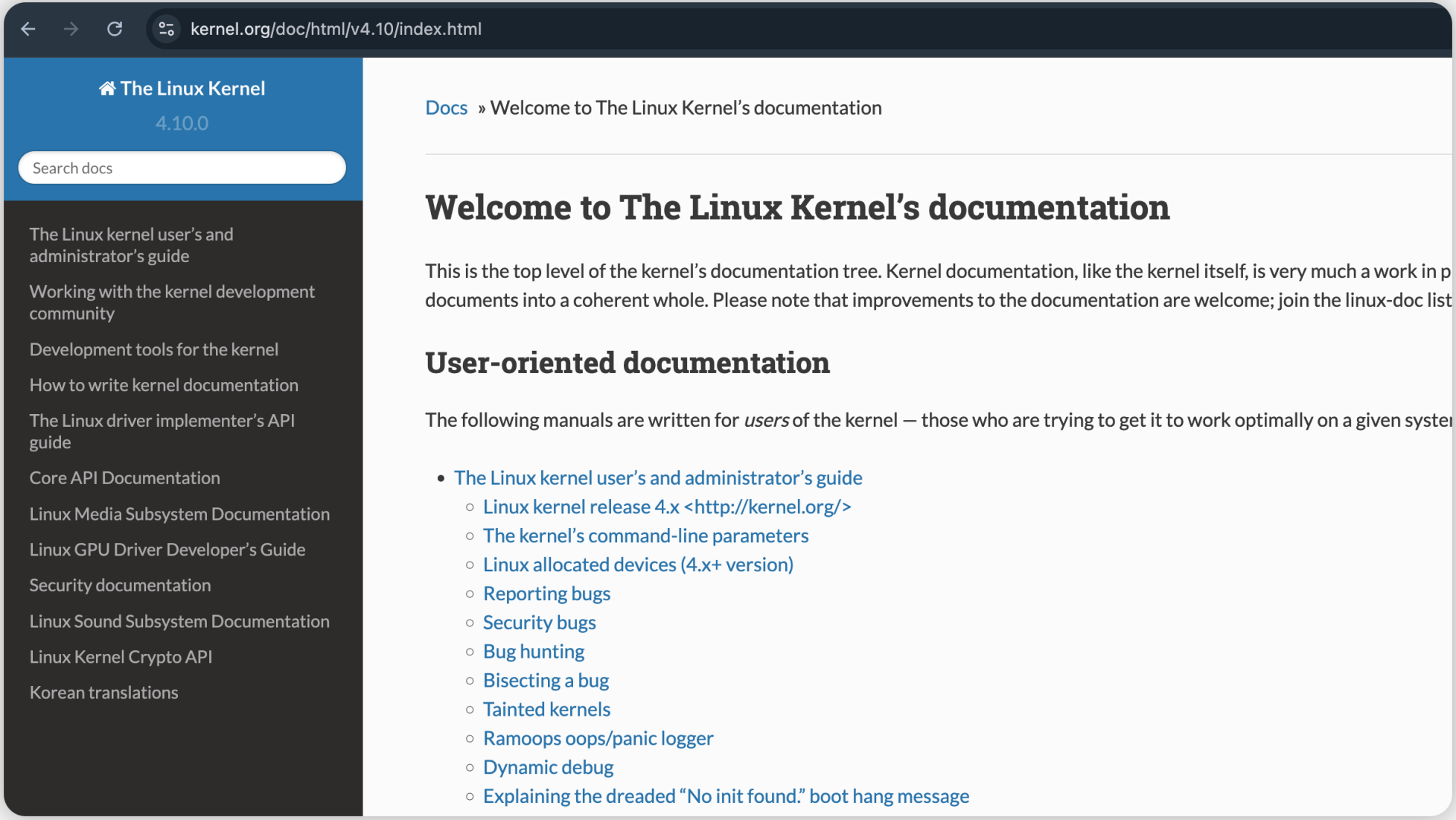
Reboot (verb) → 

Example: "If your system becomes unresponsive, you may need to reboot the computer."

READING COMPREHENSION IN OPERATING SYSTEMS

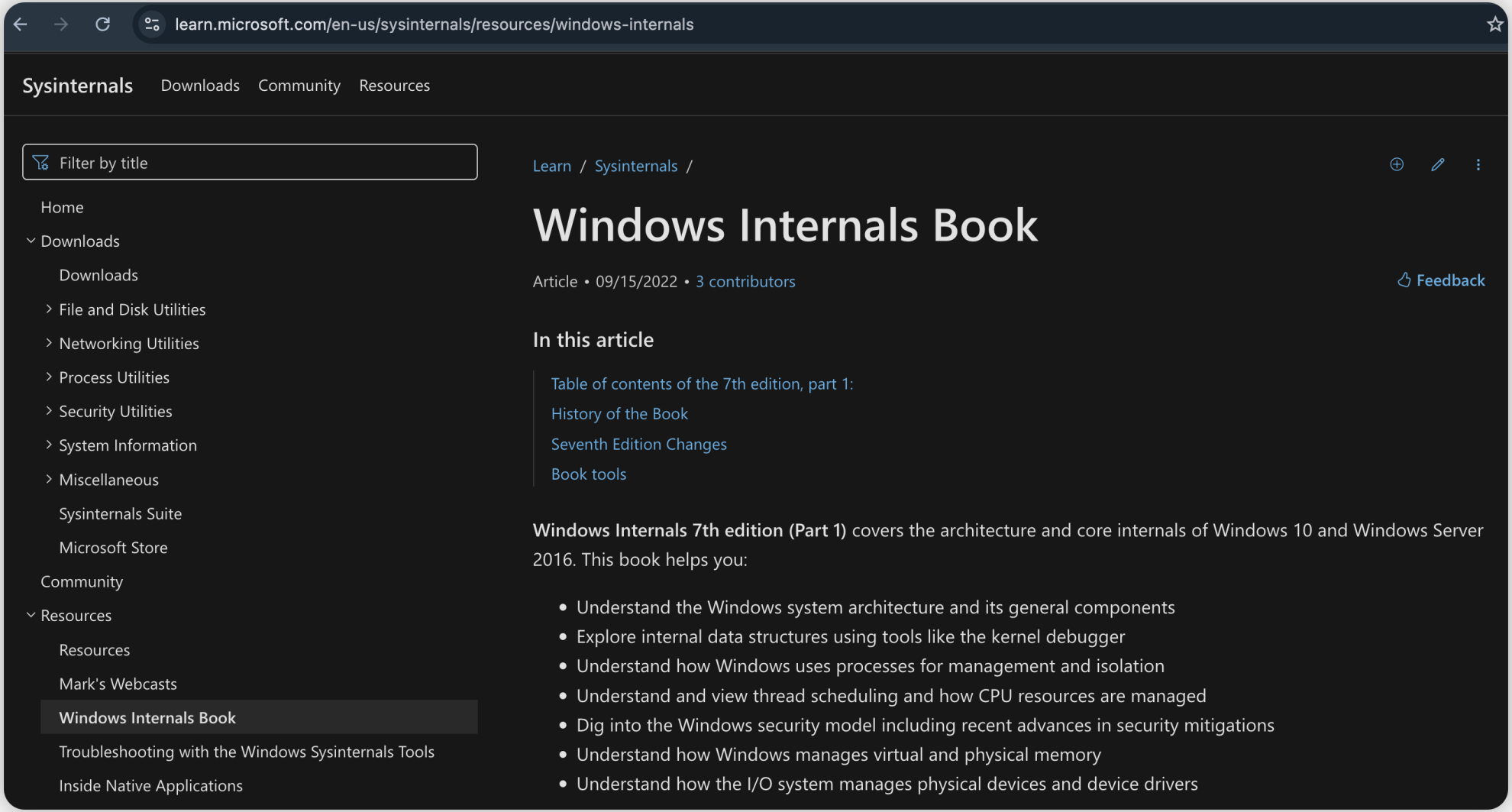
READING COMPREHENSION IN OS-1

Kernel Documentation



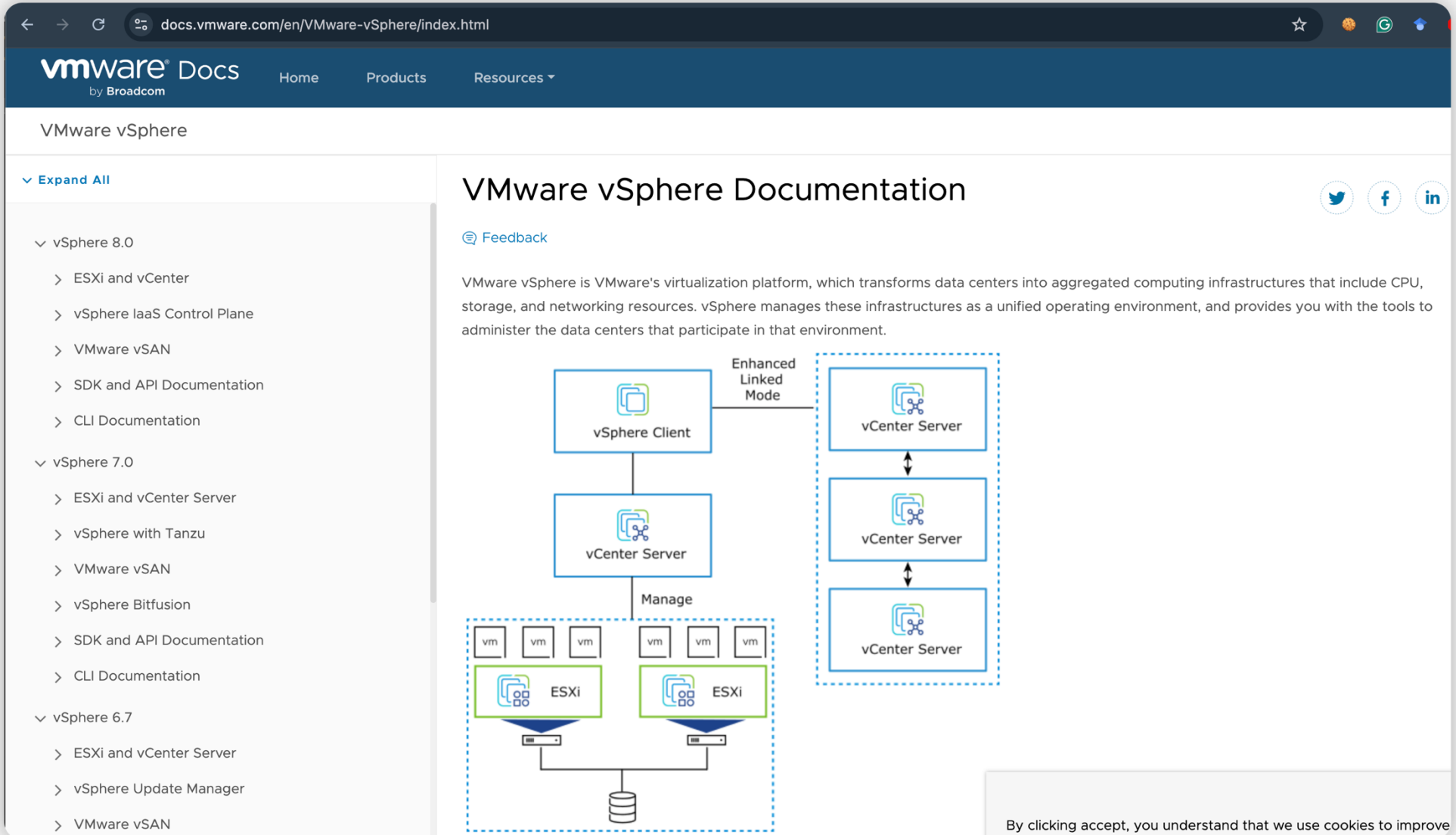
READING COMPREHENSION IN OS-1

Windows Architecture Documentation



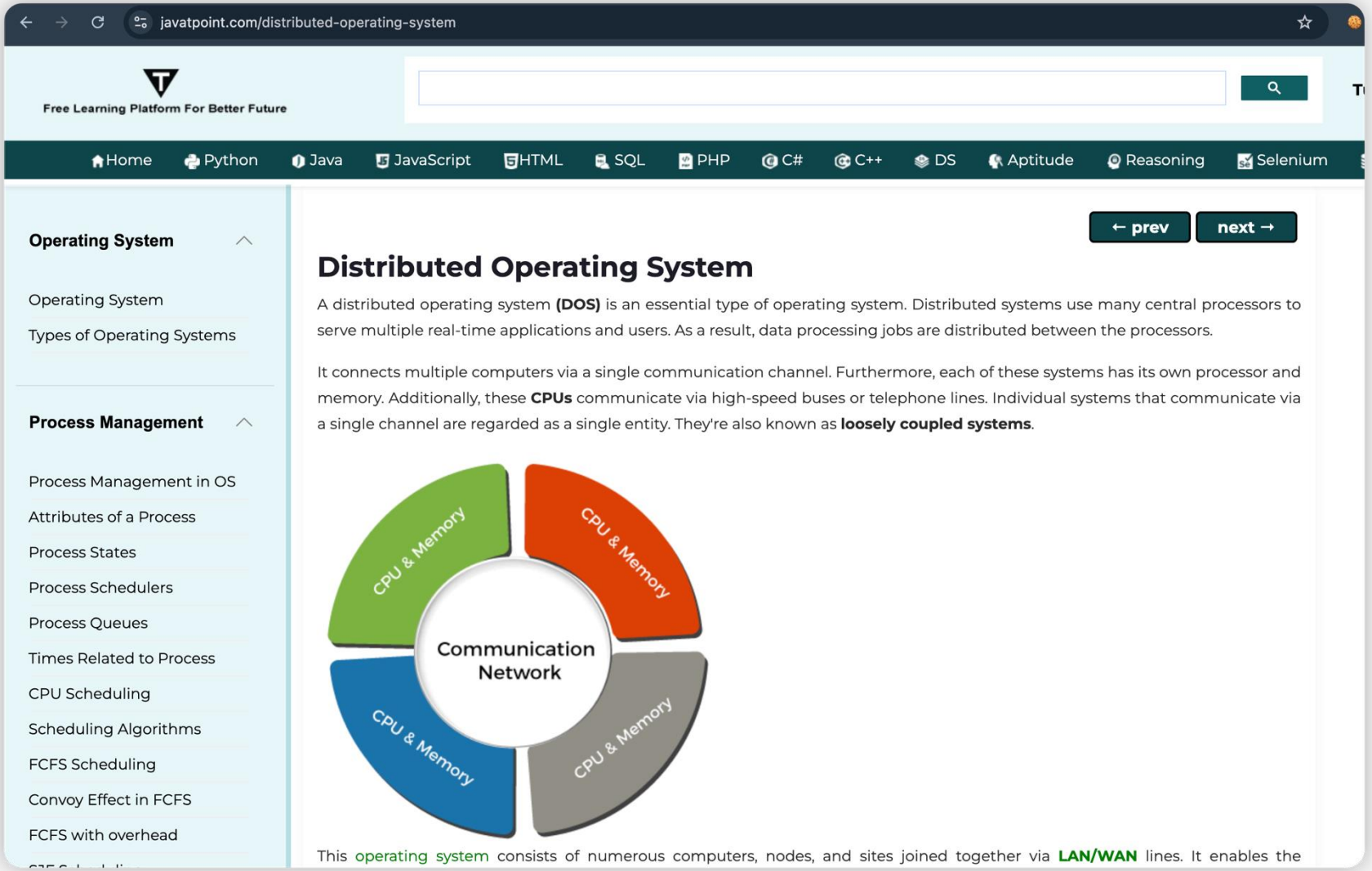
READING COMPREHENSION IN OS-1

Virtualisation Documentation



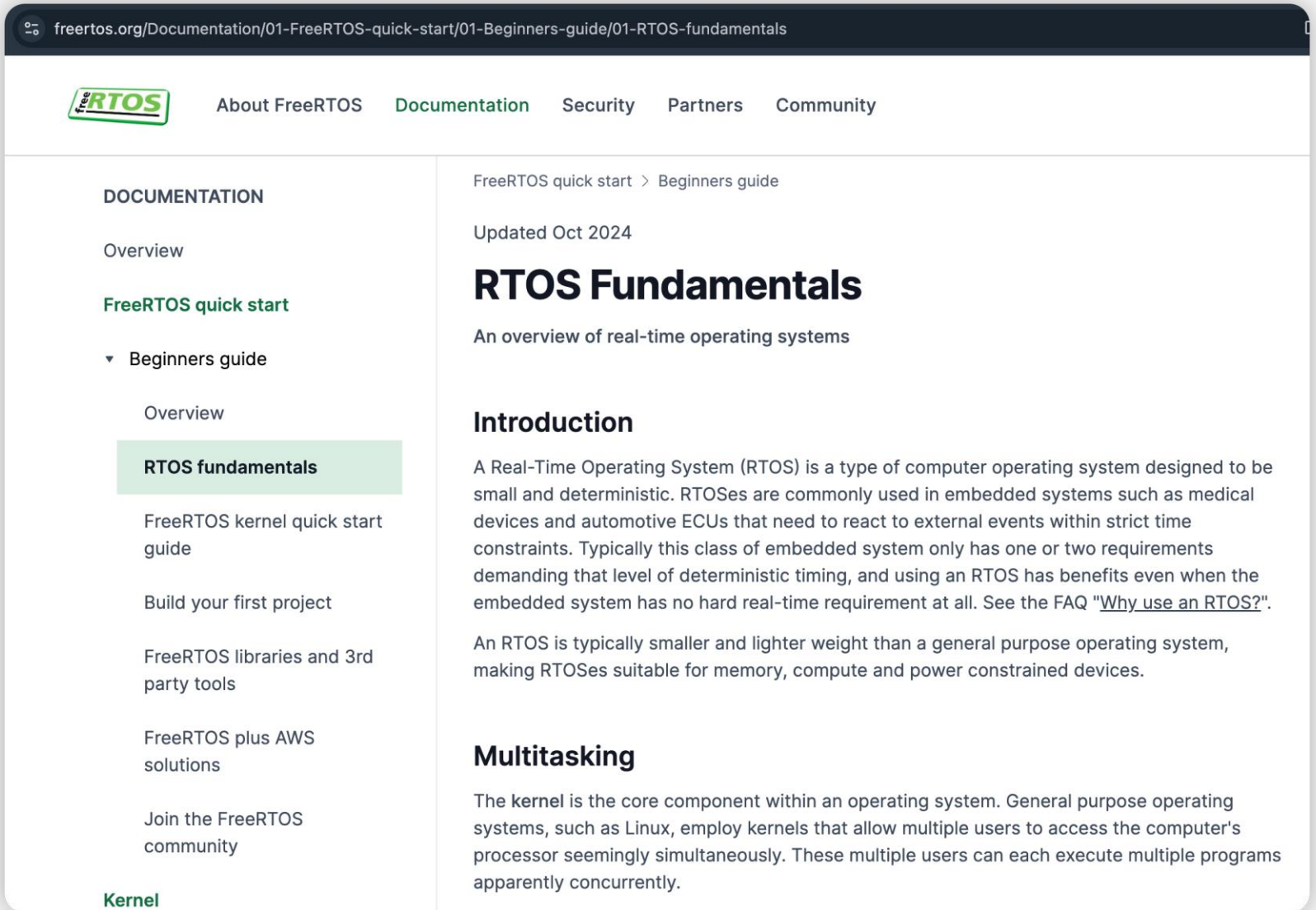
READING COMPREHENSION IN OS-1

Distributed OS Documentation



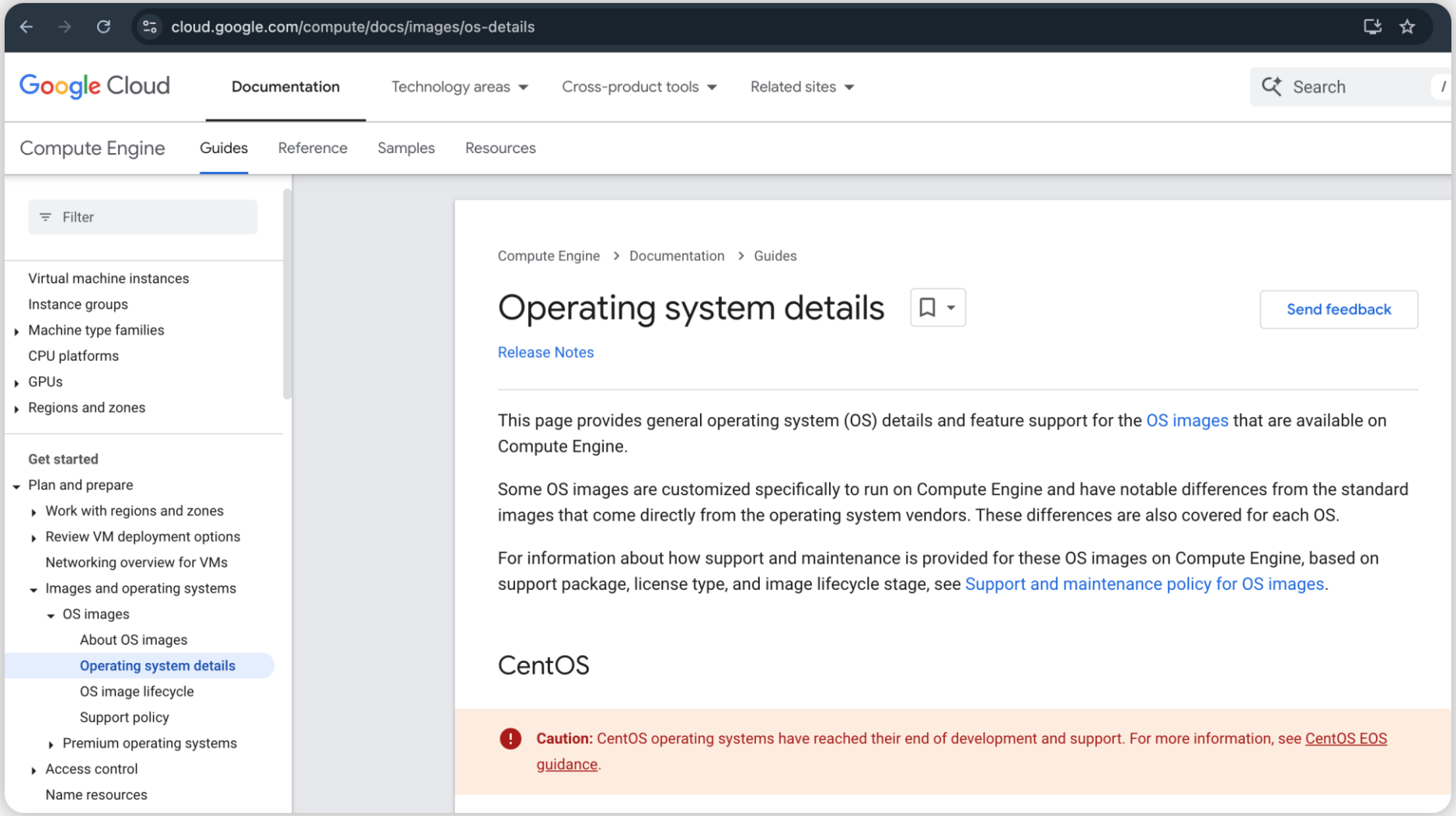
READING COMPREHENSION IN OS-1

Real Time OS Documentation



READING COMPREHENSION IN OS-1

Cloud Based OS Documentation



LISTENING

English FOR IT

OPERATING SYSTEMS LISTENING ACTIVITY.

Please go to credit page for video web address.(will be updated later)

ASSIGNMENT

Write a paragraph about **only one of the topic** below with your friend. Up to 3 friends or you can work alone. Send me your findings.

- Compare different operating system architectures (e.g., monolithic vs. microkernel) and explain which one is more efficient in modern systems.
- Research file systems like NTFS and ext4. Write about how they differ in performance and security.
- Write about the role of virtualization in modern operating systems and its impact on resource management.
- Analyze the security features of a popular operating system. Focus on things like user permissions and encryption.
- Research how memory management works in a specific operating system (e.g., Linux or Windows). Discuss how it affects performance.
- Compare open-source operating systems (e.g., Linux) with proprietary ones (e.g., Windows) and write about the pros and cons of each.
- Research real-time operating systems (RTOS) and explain how they differ from general-purpose operating systems.
- Write a review of a specific feature in an operating system (e.g., Windows Task Manager). Explain how it helps users.

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