

This assignment can be done in groups of up to four.

An **Operating System** efficiently manages system resources, such as CPU, memory, and I/O devices, ensuring their optimal utilization. It prevents resource conflicts and provides fair allocation, maximizing system performance.

Each group will choose a specific operating system (OS). In the class, we'll learn about the concepts in respect to a generic operating system. Your job here is to explore these aspects in the specific OS that you have chosen. The best approach would be to work on this throughout the semester as we explore each topic.

The outline of the presentation would include:

- Introduction to your chosen OS
- CPU Scheduling
- Process Synchronization & Deadlock Management
- Memory Management
- Disk Scheduling & RAID Structure
- I/O Device Management & Scheduling
- Networking, Protection and Security (optional)

You can include any other info that you find relevant such as interesting facts, code excerpts where applicable, and more. Please make sure to include a 'References' section that lists all the sources you use. You might want to use the material in Ch 20 and Ch 21 of the textbook if you choose Linux or, Windows 10 operating systems respectively.

Challenge: Make the presentation interactive

Out: May 14, 2024

Due: Mon Aug 12, 2024 with presentation during Tue class time as per assigned slots

Interim progress dates are specified as part of instructions

Rubrics

10points – Instructor Presentation Feedback

5 points – Peer Presentation Feedback

Presentation Feedback will be based on the Quality of Content, Presentation Delivery, and Handling of Questions.

5 points – Filling out the feedback form for all presentations (including self).

Note: Video needs to be on for the presenting group (otherwise, it will hurt the Delivery of Presentation grade). It is encouraged that the video is on at other times also.

Deliverables & Due Dates:

Group Information & Choice of Operating System: May 21, 2024

Update I – July 2, 2024

Update II – July 16, 2024

Update III – July 30, 2024

Final Submission – Aug 12, 2024

Presentation: Aug 13, 2024, during class time based on the presentation schedule.

Out: May 14, 2024

Due: Mon Aug 12, 2024 with presentation during Tue class time as per assigned slots

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