Team PROJECT (CASE STUDY) -- (Can be done in teams of 2 to 3 students)

Evaluation of Two Modern Operating Systems

Submit Report and PowerPoint Presentation through Canvas

Deadline: Monday, November 29, 2021 at 11:59 pm

Project objective: To learn more about operating systems concepts through research and the analysis of two modern operating systems.

Select, research, and compare two existing operating systems **of your choice**.

Use ***at least*** six technical research sources **properly referenced** (Wikipedia is **NOT** a technical reference)

**Project specifications are as follows:**

Table of contents and overall presentation of report:

1. Introduction – describe the Operating Systems, give examples of types of computer systems that use this OS **(1 to 2 pages)** and what are the requirements of these systems (example: hard real time, small size, etc.)
2. What is the OS architecture (microkernel, layered, modular, or combination)

How are the major components of the system structured in the OS architecture? **(1 to 2 pages)- use figures**

**\*\*\*Be sure to properly cite all material taken from references**

1. Describe some of the major functions of the system, discuss how they relate to the type of system **(5 to 10 pages).** Some suggestions below – **discuss topics of interest/ relate to topics discussed in class:**

* Process descriptor/ process states
* Threading – does the system support threading?
* Schedulers (long term, short term)?
* Scheduling algorithms used (Priority, Round Robin, MLQ, MLFQ, new algorithm)
* Synchronization techniques? Semaphores?
* How does the system handle deadlocks?
* Memory organization and management
* I/O management

**\*\*\*Be sure to properly cite any material taken from references**

1. Evaluate the design. What is good about it? What are its limitations? How would you extend it? **(1 to 3 pages) \*\*\*Evaluations must be entirely in your own words**
2. Prepare a PowerPoint presentation (about 10-12 slides) and include in the report.
3. References

Submit as a hard copy report. Report: 13-18 pages + PowerPoint presentation. Be prepared to do a presentation in class. Presentations will be scheduled for Wednesday, December 1 and Friday, December 3, 2021.