

COURSE PROJECT SCSR2043 OPERATING SYSTEM

Video Animation on OS Concepts

The purpose of the video animation is to enhance comprehension of the topic in operating system for the group as well as those who view the animation. Each group needs to prepare a video of animation / simulation / of a topic covered in the course and detail explanation in report writing. The group needs to choose suitable data set to simulate the assigned operating system concept and the choice of data set will be assessed. Students may use any tools or applications such as *Flash*, *Dreamweaver* and video editing applications like Filmora, HitFilm Express, DaVinci Resolve or InShot and Quik for mobiles or any suitable tools / applications. Please also include yourself / your face in the video explaining the animation. The list of topics is as in **Table 1**.

Table 1

No.	Topics/Area	Group
1.	Fixed & Dynamic Memory Management – First Fit & Best Fit	
2.	Fixed & Dynamic Memory Management – Next Fit & Worst Fit	
3.	Paging Concept	
4.	Virtual Memory Management - Replacement Algorithm: FIFO, OPT, LRU	
5.	Contiguous and Non-Contiguous Disk Allocation	
6.	Free Space management	
7.	Disk scheduling	
8.	Deadlock – RAG, Deadlock avoidance – safety algorithm	
9.	Deadlock - resource request algorithm, detection algorithm	
10.	Process Coordination – Peterson, Producer – Consumer, Semaphore	
11.	Process Scheduling – Round Robin, Multi-level Queue	
12.	Process Scheduling – SJF, SRTF, Priority	

IMPORTANT DATES

Budget your time wisely for the team project. Plan a time-table for your project and take pains to observe the deadlines.

(Name of File: GROUPNAME.MP4/OR ANY VIDEO EASY TO OPEN)

Due date: **Week 15**

REPORT WRITING GUIDELINES

Report should be clear, precise and explain the OS concept and the choice of data in detail. Please include evidence of group collaboration in your report (conversation in Whatsapp / Telegram, screenshots of online meeting on Google Meet / Zoom or work plan on Trello / Google Docs or any appropriate online collaboration tools that you use for project management.

VIDEO PRESENTATION GUIDELINES

Plan to give a 15-minute video (maximum time: 15 mins) for presentation and discussion. The video animation should be self-contained, clear and precise. In the video, briefly introduce the topic, how the group collaborate in conducting the project and execute your animation and explain. **Every member in the group must appear in the video.**

ASSESSMENT

The project contributes 15% to course grade. Assessment is done in two aspects:

1. Implementation (10) – in both video and report
 - i. Correctness (3)
 - ii. Completeness (3)
 - iii. Choice of data input (2)
 - iv. Creativity (2)
2. Presentation (10) – in video footage (contribute 5% to course grade)
 - i. Organization (2.5)
 - ii. Presentation (2.5)
 - iii. Collaboration (2.5)
 - iv. Question & Answers (2.5)

GENERAL GUIDELINES

1. Check your animation if it portrays the right concept.
2. Check grammar and spelling error.
3. Do not plagiarize

NOTE: Plagiarism is stealing or passing off the ideas or words of another as one's own -- using material without crediting the source. This is prohibited behavior and will not be tolerated. Take the time to properly cite material written by someone else -- include references, put verbatim quotes in quotation marks, and do not paraphrase excessively. If you have questions about this, ask your lecturer.

Presentation Rubric (10)

Criteria\Marks	1	1.5	2	2.5
Collaboration Did everyone contribute to the presentation? Did everyone seem well versed in the material?	The teammates never worked from others' ideas. It seems as though only a few people worked on the presentation.	The teammates sometimes worked from others' ideas. However it seems as though certain people did not do as much work as others.	The teammates worked from others' ideas most of the time. And it seems like every did some work, but some people are carrying the presentation.	The teammates always worked from others' ideas. It was evident that all of the group members contributed equally to the presentation.
Organization Was the Presentation well organized and easy to follow?	The presentation lacked organization and had little evidence of preparation.	There were minimal signs of organization or preparation.	The presentation had organizing ideas but could have been much stronger with better preparation.	The presentation was well organized, well prepared and easy to follow.
Presentation Did the presenters Speak clearly? Did the engage the audience? Was it obvious the material had been rehearsed?	Presenters were unconfident and demonstrated little evidence of planning prior to presentation.	Presenters were not consistent with the level of confidence/preparedness they showed the classroom but had some strong moments.	Presenters were Occasionally confident with their presentation however the presentation was not as engaging as it could have been for the class.	Presenters were all very confident in delivery and they did an excellent job of engaging the class. Preparation is very evident.
Question/Answer Techniques	Presenter's answers to questions are incorrect or incomplete.	Presenter has difficulty responding to questions.	Presenter is able to respond to questions	Presenter answers questions confidently and completely.