Operating Systems

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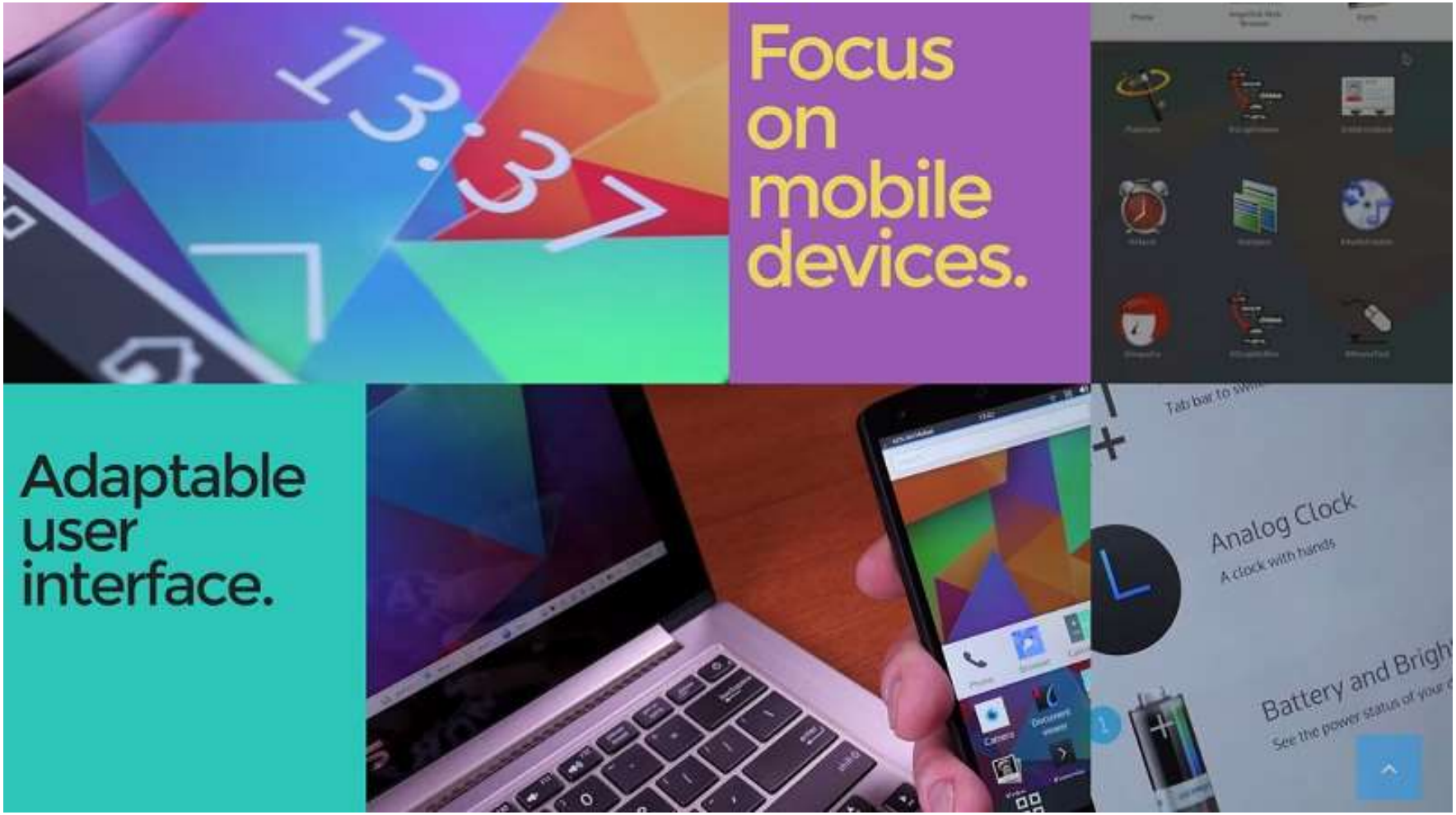
Compiled with reference to other presentations

Course Objectives

- To extensively understand concepts and definitions of operating systems
- To be able to work on kernel-native/integrated modules of typical operating systems
- To be able to develop modules/services/drivers
- To be able to approach and investigate advanced topics in operating systems


Focus
on
mobile
devices.
Adaptable
user
interface.
Analog Clock
A clock with hands

Course syllabus

- Chapter 1 – Introduction to Operating Systems
- Chapter 2 – Process and Threads
- Chapter 3 – Memory Management
- Chapter 4 – I/O and Drivers
- Chapter 5 – File Systems and Mass Storage
- Chapter 6 – Operating System Security
- Chapter 7 – Virtual Machines
- Chapter 8 – Designing Matters

References

1. Lecture notes
2. Online reference lectures: video clips
3. Stanford courseware:

https://www.scs.stanford.edu/23wi-cs212/

Stanford CS240: Advanced Topics in Operating Systems

References

- "*Operating System Concepts, 10th Edition*," Abraham Silberschatz, Peter Baer Galvin, Greg Gagne, 2021.
- *"Modern Operating Systems, 4th Edition (2014),"* Tanenbaum and Bos, Pearson, ISBN 978-0133591620.
- *"Understanding Operating Systems 8th Edition",* Ann McHoes, Ida M. Flynn, Cengage Learning, 2017.

Performance evaluation

- Short exercises: 40% (*proposed*)
- Subproject assignment: 60% (*proposed*)