



Study Guide for Week #4

Module 4: Containers and Dockers

Material Outline

- (1) What is virtualization?
- (2) Advantages and problems of virtualization
- (3) Containers
- (4) Docker and Docker Vocabulary
- (5) Docker Architecture

Provided Documents

Documents	Description
Week4-WatchMEfirst	Video explaining the goals of this week
Week4-StudyGuide.pdf	The guiding documents for the materials covered in this week, student work, and learning outcomes of this week.
Week4-Slides.ppt	PowerPoint slides regarding the principles of secure architecture on IoT
Week4-Lecture	Video Lecture
Week4-PaperReading	A paper that talks about “Containers for Virtualization: An Overview”
Week4-Resources -> Video: What is a Container?	Please watch this video to understand better what a container is.
Week4-Resources -> Video: Differences between Virtual Machine and Containers	In this video, you will see the fundamental differences between VM and containers

Documents	Description
Week4-Resources -> Reading: Intro to Containers and Dockers	A reading about Containers and dockers. Please follow the links to continue reading
Week4-Checklist	A checklist for your reference

Student Assignments

- Digest PowerPoint slides
- Watch the Lecture (or attend the in-person lecture)
- Read the Week 4 Material (All readings and papers provided)
- Watch explicative videos
- Complete Checkmark #2
- Complete Quiz #1

Learning Goals

This module is part of the learning outcomes

- (1) Describe the main advantages of containers
- (2) Perform commands using containers in an online simulator