



	OBJECTIVES - 11/15
<ul> <li>Ouestions fro</li> <li>Tutorials Que</li> <li>Class Present Cloud Techno</li> <li>Quiz 1</li> <li>Ch. 5: Cloud I</li> <li>Tutorial 7</li> <li>Containerizat</li> </ul>	m 11/10 stions tations: logy or Research Paper Review Enabling Technology
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Qui		uctic	/15								
	Quest	ion 1								0.5 pts	
	On a s class:	cale of 1	to 10, p	olease cl	assify yo	our persp	pective o	on mater	ial cove	red in today's	
	1	2	3	4	5	6	7	8	9	10	
	Mostly Review	/ v To Me		Ne	Equal w and Rev	/iew				Mostly New to Me	
	Quest	ion 2								0.5 pts	
	Please	rate the	pace of	today's	class:						
	1	2	3	4	5	6	7	8	9	10	
	Slow			J	ust Right				1	Fast	









































































```
// SOAP REQUEST
POST /InStock HTTP/1.1
Host: www.bookshop.org
Content-Type: application/soap+xml; charset=utf-8
Content-Length: nnn
<?xml version="1.0"?>
<soap:Envelope
xmlns:soap="http://www.w3.org/2001/12/soap-envelope"
soap:encodingStyle="http://www.w3.org/2001/12/soap-
encoding">
<soap:Body xmlns:m="http://www.bookshop.org/prices">
  <m:GetBookPrice>
     <m:BookName>The Fleamarket</m:BookName>
  </m:GetBookPrice>
</soap:Body>
</soap:Envelope>
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```





















т	UTORIAL COVERAGE				
• Docker CLI $\rightarrow$ D	ocker Engine (dockerd) $ ightarrow$ containerd $ ightarrow$ r	unc			
Working with the second sec	ne docker CLI:				
■ docker run	create a container				
docker ps -a	docker ps -a list containers, find CONTAINER ID				
docker execit	run a process in an existing container				
docker stop	stop a container				
docker kill	kill a container				
docker help	list available commands				
man docker	Docker Linux manual pages				
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attach	Attach local standard input, output, and error streams to a running container
build	Build an image from a Dockerfile
commit	Create a new image from a container's changes
ср	Copy files/folders between a container and the local filesystem
create	Create a new container
deploy	Deploy a new stack or update an existing stack
diff	Inspect changes to files or directories on a container's filesystem
events	Get real time events from the server
exec	Run a command in a running container
export	Export a container's filesystem as a tar archive
historv	Show the history of an image
images	List images
import	Import the contents from a tarball to create a filesystem image
info	Display system-wide information
inspect	Return low-level information on Docker objects
kili	Kill one or more running containers
load	Load an image from a tar archive or STDIN
login	Log in to a Docker registry
logout	Log out from a Docker registry
loas	Fetch the logs of a container
Dause	Pause all processes within one or more containers
port	List port mappings or a specific mapping for the container
DS	List containers
DULL	Pull an image or a repository from a registry
push	Push an image or a repository to a registry
rename	Rename a container
restart	Restart one or more containers
гm	Remove one or more containers
rmi	Remove one or more images
run	Run a command in a new container
save	Save one or more images to a tar archive (streamed to STDOUT by default)
search	Search the Docker Hub for images
start	Start one or more stopped containers
stats	Display a live stream of container(s) resource usage statistics
stop	Stop one or more running containers
tag	Create a tag TARGET IMAGE that refers to SOURCE IMAGE
top	Display the running processes of a container
unpause	Unpause all processes within one or more containers
update	Update configuration of one or more containers
version	Show the Docker version information
wait	Block until one or more containers stop, then print their exit codes







































CREATING A CONTAINER - 2
Docker Engine Containerd
Runc and other OCI runtimes
Containerd Integration Architecture
Docker CLI: interfaces with dockerd daemon
Docker engine: dockerd daemon, interfaces with containerd
<ul> <li>Containerd: simple daemon, interfaces with runc to manage containers; CRUD interface for containers, images, volumes, networks, builds; HTTP API → Google RPC (gRPC) interface;</li> </ul>
runc: lightweight command-line tool for running containers; Interfaces with Linux cgroups, namespaces; Runs an OCI container
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