

INTRODUCTION TO CLOUD COMPUTING

Lab Task 05 (B) (Implement Azure Container Instances)

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Task 1: Deploy an Azure Container Instance using a Docker image.

- Creating an Azure Container Instance:

The screenshot shows the 'Create container instance' wizard in the Microsoft Azure portal. The current step is 'Container details'. The user has selected 'Subscription' as 'Azure for Students' and 'Resource group' as '(New) azt104-rg9'. In the 'Container details' section, the 'Container name' is set to 'azt104-c1', 'Region' is '(Asia Pacific) East Asia', 'Availability zones (Preview)' is 'None', and 'SKU' is 'Standard'. Under 'Image source', 'Quickstart images' is selected. The 'Run with Azure Spot discount' checkbox is unchecked. The 'Image' dropdown is set to 'mcr.microsoft.com/azuredocs/aci-helloworld:latest (Linux)'. At the bottom, there are 'Review + create' and 'Next : Networking >' buttons.

- Networking tab showing DNS name label configuration:

The screenshot shows the 'Create container instance' wizard in the Microsoft Azure portal, specifically the 'Networking' tab. The user has selected 'Networking' from the tabs at the top. In the 'Networking type' section, 'Public' is selected. The 'DNS name label' is 'lab09' and 'DNS name label scope reuse' is 'Tenant'. Under 'Ports', port 80 is mapped to TCP. At the bottom, there are 'Review + create', '< Previous', and 'Next : Monitoring >' buttons.

- Monitoring tab with Enable container instance logs unchecked

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- **Deployment Successful:**

Task 2: Test and verify deployment of an Azure Container Instance.

- **Verify the status is running:**

Essentials
Resource group (move) : az104-rg9
Status : Running
Location : East Asia
Subscription (move) : Azure for Students
Subscription ID : 57a8b5a5-89cd-44d7-aaaf-c65ebdf15a43
Tags (edit) : Add tags

- **Container Instance FQDN:**

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The screenshot shows the Microsoft Azure portal interface for a container instance named 'az104-c1'. The 'Overview' tab is selected. Key details shown include:

- Resource group: az104-rg9
- Status: Running
- Location: East Asia
- Subscription: Azure for Students
- FQDN: lab09.hfhvecdzc3hyd0gk.eastasia.azurecontainer.io
- Container count: 1

A note at the top right states: "Please be aware that Docker Hub has recently introduced a pull rate limit on Docker images. When specifying an image from the Docker Hub registry, this may impact your container instance." A 'Learn more' link is provided.

- Accessing Container Using FQDN in Browser. & Verify Welcome to Azure Container Instance Page is Displayed:



- Container Logs Section & Verification of HTTP GET Log Entries:

The screenshot shows the 'Containers' section of the Azure portal for the 'az104-c1' container instance. It lists one container named 'az104-c1' with the following details:

Name	Image	State	Previous state	Start time	Restart count
az104-c1	mcr.microsoft.com/azuredocs/aci...	Running	-	2026-01-08T22:54:02.115Z	0

The 'Logs' tab is selected, showing the container's log output. The logs capture several HTTP requests:

```
listening on port 80
::ffff:10.92.0.4 - - [08/Jan/2026:23:04:33 +0000] "POST / HTTP/1.1" 404 140 "-" "Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36"
::ffff:10.92.0.4 - - [08/Jan/2026:23:23:04 +0000] "GET / HTTP/1.1" 200 1696 "-" "-"
::ffff:10.92.0.5 - - [08/Jan/2026:23:35:08 +0000] "GET / HTTP/1.1" 200 1696 "-" "Mozilla/5.0 (compatible; CensysInspect/1.1; +https://about.censys.io)"
::ffff:10.92.0.5 - - [08/Jan/2026:23:35:10 +0000] "GET /favicon.ico HTTP/1.1" 404 150 "-" "Mozilla/5.0 (compatible; CensysInspect/1.1; +https://about.censys.io)"
::ffff:10.92.0.5 - - [08/Jan/2026:23:35:15 +0000] "GET /login HTTP/1.1" 404 144 "-" "Mozilla/5.0 (compatible; CensysInspect/1.1; +https://about.censys.io)"
::ffff:10.92.0.4 - - [08/Jan/2026:23:50:22 +0000] "GET / HTTP/1.0" 200 1696 "-" "-"
::ffff:10.92.0.4 - - [09/Jan/2026:00:01:50 +0000] "GET / HTTP/1.1" 200 1696 "-" "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_15_7) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/124.0.0.0 Safari/537.36"
```