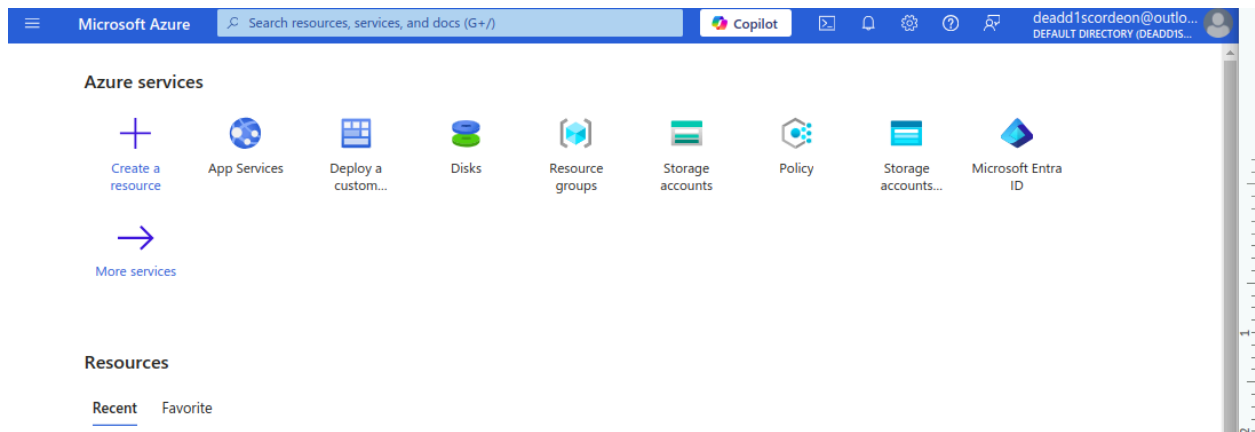


AZ-104-Microsoft Azure Administrator Kateryna Bakhmat

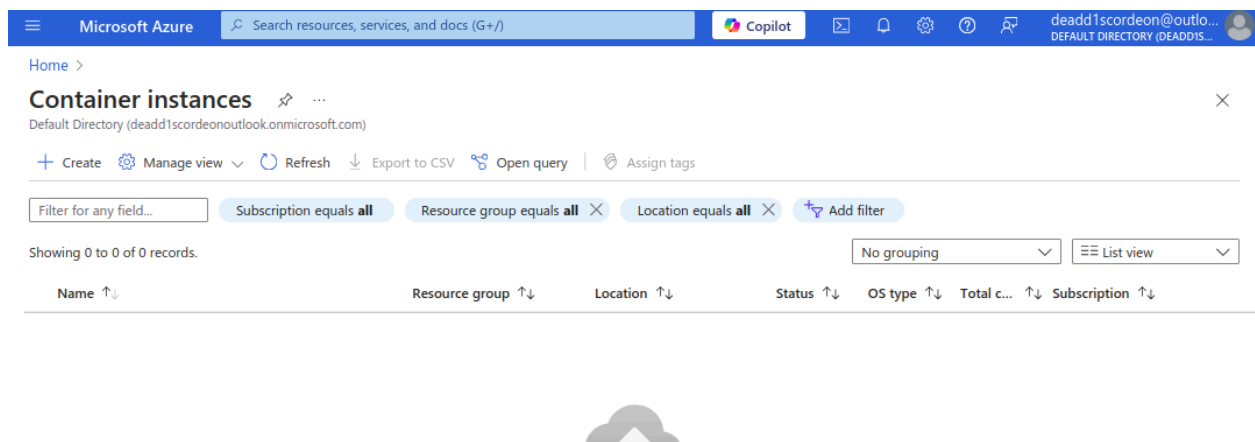
## Lab 09b - Implement Azure Container Instances

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

1. Sign in to the Azure portal - <https://portal.azure.com>.



2. In the Azure portal, search for and select Container instances and then, on the Container instances blade, click + Create.



3. On the Basics tab of the Create container instance blade, specify the following settings (leave others with their default values):

[Basics](#)   [Networking](#)   [Monitoring](#)   [Advanced](#)   [Tags](#)   [Review + create](#)

Azure Container Instances (ACI) allows you to quickly and easily run containers on Azure without managing servers or having to learn new tools. ACI offers per-second billing to minimize the cost of running containers on the cloud.

[Learn more about Azure Container Instances](#)

### Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ	Azure subscription 1 ▼
Resource group * ⓘ	(New) az104-rg9 ▼ <a href="#">Create new</a>

### Container details

Container name * ⓘ	az104-c1 ✓
Region * ⓘ	(US) East US ▼
Availability zones (Preview) ⓘ	None ▼
SKU	Standard ▼
Image source * ⓘ	<input checked="" type="radio"/> Quickstart images <input type="radio"/> Azure Container Registry <input type="radio"/> Other registry
Run with Azure Spot discount ⓘ	<input type="checkbox"/> <b>i</b> Spot containers are not available in the selected region. <a href="#">Learn more</a>
Image * ⓘ	mcr.microsoft.com/azuredocs/aci-helloworld:latest (Linux) ▼
Size * ⓘ	1 vcpu, 1.5 GiB memory, 0 gpus <a href="#">Change size</a>

4. Click Next: Networking > and specify the following settings (leave others with their default values):

✓ Validation passed

Basics Networking Monitoring Advanced Tags Review + create

Choose between three networking options for your container instance:

- **'Public'** will create a public IP address for your container instance.
- **'Private'** will allow you to choose a new or existing virtual network for your container instance.
- **'None'** will not create either a public IP or virtual network. You will still be able to access your container logs using the command line.

Networking type ☒ Public ☐ Private ☐ None

DNS name label ⓘ  ✓

DNS name label scope reuse \* ⓘ  ▼

5. Click Next: Advanced >, review the settings without making any changes.

Basics Networking Monitoring Advanced Tags Review + create

Configure additional container properties and variables.

Restart policy ⓘ  ▼

Environment variables

Mark as secure	Key	Value
<input type="text" value="No"/> ▼	<input type="text"/>	<input type="text"/>

Command override ⓘ  ✓

Example: [ "/bin/bash", "-c", "echo hello; sleep 100000" ]

Key management ⓘ ☒ Microsoft-managed keys (MMK)  
☐ Customer-managed keys (CMK)

**i** Customer managed keys require a service principal to grant permissions to ACI. Learn how to add the ACI service principal to your tenant.

6. Click Review + Create, ensure that the validation passed and then select Create.

Review + create

< Previous

Next : Tags >

✓ Validation passed

Basics Networking Monitoring Advanced Tags Review + create

### Basics

Subscription	Azure subscription 1
Resource group	(new) az104-rg9
Region	East US
Container name	az104-c1
SKU	Standard
Image type	Public
Image	mcr.microsoft.com/azuredocs/aci-helloworld:latest
OS type	Linux
Memory (GiB)	1.5
Number of CPU cores	1
GPU type (preview)	None
GPU count	0

### Networking

Networking type	Public
Ports	80 (TCP)
DNS name label	az104dns
DNS name label scope reuse	Tenant

### Monitoring

Enable container instance logs	On
Monitoring workspace	DefaultWorkspace-f80303f7-6763-4988-a828-9a2836f89e14-EUS

### Advanced

Restart policy	On failure
Command override	[ ]

### Tags

Create

Create

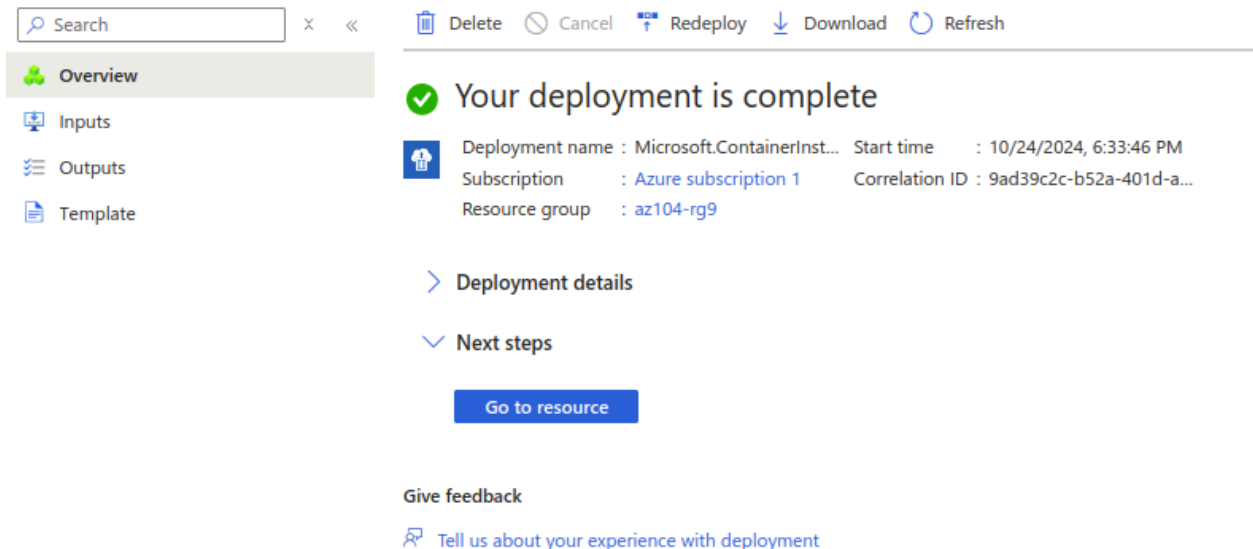
< Previous

Next >

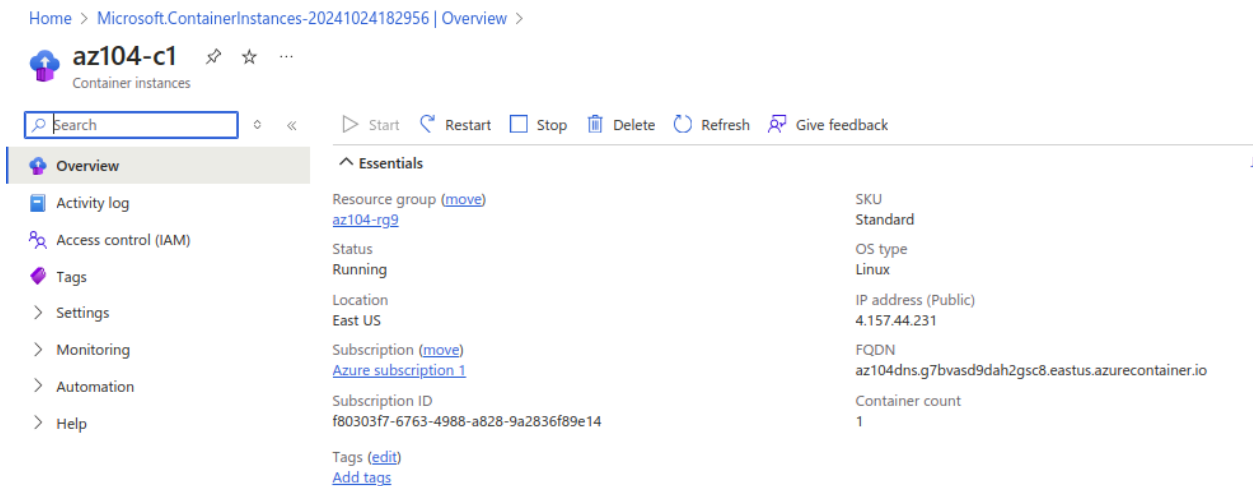
[Download a template for automation](#)

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

1. On the deployment blade, click the Go to resource link.



The screenshot shows the Azure portal deployment blade for a Microsoft.ContainerInstances resource. The top navigation bar includes a search box and action buttons: Delete, Cancel, Redeploy, Download, and Refresh. The left sidebar contains links to Overview, Inputs, Outputs, and Template. The main content area displays a green checkmark and the message "Your deployment is complete". Below this, deployment details are listed: Deployment name (Microsoft.ContainerInst...), Start time (10/24/2024, 6:33:46 PM), Subscription (Azure subscription 1), Correlation ID (9ad39c2c-b52a-401d-a...), and Resource group (az104-rg9). A "Go to resource" button is prominently displayed. At the bottom, there is a "Give feedback" section with a link to "Tell us about your experience with deployment".



The screenshot shows the Azure portal Overview blade for the container instance 'az104-c1'. The breadcrumb navigation shows the path: Home > Microsoft.ContainerInstances-20241024182956 | Overview >. The resource name 'az104-c1' is displayed with a 'Container instances' icon. The left sidebar contains links to Overview, Activity log, Access control (IAM), Tags, Settings, Monitoring, Automation, and Help. The main content area features an 'Essentials' section with a table of key properties:

Property	Value
Resource group	<a href="#">(move)</a> az104-rg9
Status	Running
Location	East US
Subscription	<a href="#">(move)</a> Azure subscription 1
Subscription ID	f80303f7-6763-4988-a828-9a2836f89e14
Tags	<a href="#">(edit)</a> <a href="#">Add tags</a>
SKU	Standard
OS type	Linux
IP address (Public)	4.157.44.231
FQDN	az104dns.g7bvasd9dah2gsc8.eastus.azurecontainer.io
Container count	1

2. On the Overview blade of the container instance, verify that Status is reported as Running.

Resource group (move)  
[az104-rg9](#)

Status  
Running

Location  
East US

3. Copy the value of the container instance FQDN, open a new browser tab, and navigate to the corresponding URL.

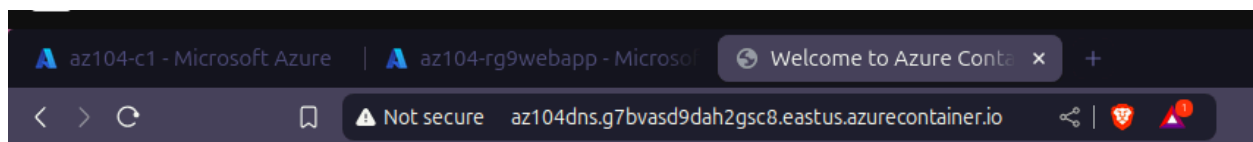
4.157.44.231

FQDN

az104dns.g7bvasd9dah2gsc8.eastus.azurecontainer.io

Copied

4. Verify that the Welcome to Azure Container Instance page is displayed. Refresh the page several times to create some log entries then close the browser tab.



Welcome to Azure Container Instances!



5. In the Settings section of the container instance blade, click Containers, and then click Logs.

**az104-c1 | Containers**
☆ ...

Container instances

◦ <<
Refresh
Give feedback

Overview

Activity log

Access control (IAM)

Tags

Settings

Containers ☆

Identity

Properties

Locks

Monitoring

Automation

Help

1 container and 0 init containers

Name	Image	State	Previous state	Start time	Restart count
az104-c1	mcr.microsoft.com/az...	Running	-	2024-10-24T15:35:42....	0

Events Properties Logs Connect

Display time zone
☒ Local time
☐ UTC

Name	↑↓	Type	↑↓	First timestamp	↑↓	Last timestamp	↑↓	Message	↑↓	Count	↑↓
Started		Normal		10/24/2024, 06:35:42 ...		10/24/2024, 06:35:42 ...		Started container		1	
Pulled		Normal		10/24/2024, 06:35:31 ...		10/24/2024, 06:35:31 ...		Successfully pulled im...		1	
Pulling		Normal		10/24/2024, 06:35:31 ...		10/24/2024, 06:35:31 ...		pulling image "mcr.mi...		1	

6.Verify that you see the log entries representing the HTTP GET request generated by displaying the application in the browser.

Events Properties Logs Connect

Logs

```

listening on port 80
::ffff:10.92.0.6 - - [24/Oct/2024:15:37:25 +0000] "GET / HTTP/1.1" 200 1663 "-" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/130.0.0.0 Safari/537.36"
::ffff:10.92.0.6 - - [24/Oct/2024:15:37:25 +0000] "GET /favicon.ico HTTP/1.1" 404 150 "http://az104dns.g7bvasd9da.h2gsc8.eastus.azurecontainer.io/" "Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/130.0.0.0 Safari/537.36"

```