

Note 1: Complete all instructions in the PDF and then return to the GitHub repo of the lab and the README.md again - for the next steps of the Lab 1. The PDF is **only** for the *Create the sample app* - step 1 of Lab 1.

Note 2: Please note that the container image for this sample app is pulled from a public Docker repository. If you choose to utilize your own container image repository, utilize the [Lab1\src] folder and the associated Dockerfile to build and push the image to your container registry of choice / repository and substitute the values in the Container App creation step for the [Registry login server] and [Image and tag] values.

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Create a resource ...

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Instructions:


In the Azure Portal, click on [+ Create a Resource] and type in "Container Apps"

Container App

Microsoft



Container App

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Microsoft

★ 4.0 (30 Marketplace ratings) | ★ 4.0 (20 external ratings)

Plan

Container App


▼

Create

- Overview
- Plans
- Usage Information + Support
- Reviews

Azure Container Apps is built on the foundation of powerful open-source technology in the Kubernetes ecosystem and abstracts the overhead of infrastructure management and orchestration. Azure Container Apps is a great choice for microservices, APIs, event processing, long running background jobs, and more.

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Azure Service

Assess the risk and health of Active Directory environments.

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AD Replication Status

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Azure Service

Identify Active Directory replication issues in your environment.

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Device Update for IoT Hub

Microsoft

Azure Service

Securely and Reliably update your devices with Device Update for IoT Hub.

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Azure Service

Azure Front Door and CDN profiles is security led, modern cloud CDN that provides static and dynamic content acceleration, global load balancing and enhanced security for your apps.

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Instructions:
Click [Create]

Create Container App ...

[Basics](#) App settings Tags Review + create

Azure Container Apps are containerized apps that scale on demand without requiring you to manage cloud infrastructure. You'll need a container and an environment for your first app. Select existing resources, or create them now. [Learn more](#)

Project details

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

Subscription *

Resource group * [Create new](#)

Container app name *

Container Apps Environment

The environment is a secure boundary around one or more container apps that can communicate with each other and share a virtual network, logging, and Dapr. [Container Apps Pricing](#)

Region *

Container Apps Environment * [Create new](#)

[Review + create](#)

[< Previous](#)

[Next : App settings >](#)

Instructions:

Project Details

Choose the [Subscription] you would like to use. It is recommended that you create a new resource group so fill in a name and create a new resource group by clicking on the [Create New] hyperlink. Provide a [Container app name] of your choice *e.g. aca-hol-demo*

Container Apps Environment


Choose the [Region] you want to deploy to from the drop-down of available regions.

As it is the first time, **let us click on the [Create new]** hyperlink to create a new [Container Apps Environment] and explore the options there instead of using the auto-populated value.

Note: An environment in Azure Container Apps creates a secure boundary around a group of container apps. Container Apps deployed to the same environment are deployed in the same virtual network and write logs to the same Log Analytics workspace.

Create Container Apps Environment ...


Basics Monitoring Networking

The environment is a secure boundary around one or more container apps that can communicate with each other and share a virtual network, logging, and Dapr. [Learn more](#) 

Environment details

Environment name ^{*} 

Zone redundancy

A Container App Environment can be deployed as a zone redundant service in the regions that support it. This is a deployment time only decision. You can't make Container App Environment zone redundant after it has been deployed. [Learn more](#) 

- Zone redundancy ^{*}
- ☒ **Disabled:** Your Container App Environment and the apps in it will not be zone redundant.
 - ☐ **Enabled:** Your Container App Environment and the apps in it will be zone redundant. This requires vNet integration.

Create Cancel

Instructions:

[Create Container Apps Environment - Basics] tab


Environment details

Provide an [Environment name]

Zone Redundancy (ZR) - The decision to make this Container App Environment - zone redundant is to be made at deployment time. The Container App Environment cannot be made zone redundant If NOT deployed as zone redundant at the time of creation. For Lab 1 - let us leave [Zone redundancy] as [Disabled]

Create Container Apps Environment ...

Basics Monitoring Networking

Your Log Analytics workspace will contain all your application logs. [Learn more](#) 

Log analytics

Log Analytics workspace *

(New) workspacergsptacahola728

▼

Create new


Instructions:

[Create Container Apps Environment - Monitoring] tab

A [Log Analytics workspace] name is pre-populated for you. You can choose to [Create new] using the link if you want.

Create Container Apps Environment ...

Basics Monitoring Networking

Selecting your own virtual network allows you to connect your application to other Azure resources or on-premises systems through the same network. [Learn more](#) 

Virtual network

Use your own virtual network * ☒ No ☐ Yes

Instructions:

[Create Container Apps Environment - Networking] tab

Virtual Network

For Lab 1 - we are not going to choose own virtual network (VNet).

But for looking at and learning a bit more - choose [Yes] just to make a note of this part for when you create a container app environment beyond this lab - that you get to choose an existing VNet or [Create new].

And then observe the menu to provide the [Infrastructure subnet] range.

The choice to have the Virtual IP as [Internal] only with the endpoint being an internal load balancer [OR] to expose the apps on an internet accessible IP address is also made here.

Now, revert to choosing [No] and click [Create]

Create

Cancel

Create Container App ...

Basics App settings Tags Review + create

Select a quickstart image for your container, or deselect quickstart image to use an existing container.

Use quickstart image ☐

Container details

You can change these settings after creating the Container App.

Name *

Image source
☐ Azure Container Registry
☒ Docker Hub or other registries

Image type
☒ Public
☐ Private

Registry login server * ⓘ

Image and tag *

OS type

Command override ⓘ

Container resource allocation

CPU and Memory *

Environment variables

+ Add

Instructions:

[Create Container Apps Environment - App Settings] tab

Uncheck the [Use quickstart image] check-box as we want to deploy our own sample app; the container image of our app is in the public Docker Hub.

[Container details]

[Name] Provide a name for the container **[Image Source]** Select [Docker Hub or other registries] **[Image type]** Select [Public]

[Registry login server] can be retained as [docker.io]

[Image and tag] Enter the value [dockerr10n/aca-lab1-image:green]

[Container resource allocation] - For this lab retain the default first value but observe that there is a set of choices that can be made based on your container's CPU and memory requirements.

Scroll down further ...

Application ingress settings

Enable ingress for applications that need an HTTP endpoint.

Ingress ⓘ	<input checked="" type="checkbox"/> Enabled
Ingress traffic	<div><input type="radio"/> Limited to Container Apps Environment</div> <div><input type="radio"/> Limited to VNet: Applies if 'internalOnly' setting is set to true on the Container Apps environment</div> <div><input checked="" type="radio"/> Accepting traffic from anywhere: Applies if 'internalOnly' setting is set to false on the Container Apps environment</div>
Ingress type	<div><input checked="" type="radio"/> HTTP</div> <div><input type="radio"/> TCP</div>
Transport	<div>Auto</div>
Insecure connections	<input type="checkbox"/> Allowed
Target port * ⓘ	<div>80</div>

Instructions:

Application ingress settings

[Ingress] - Check/ enable the checkbox

[Ingress traffic] - Select the [Accepting traffic from anywhere] button.

[Ingress type] – leave the default HTTP option as selected

[Transport] – leave it as “Auto”

[Insecure connections] – leave it **unselected**; this will ensure HTTP requests to port 80 are **automatically** redirected to port 443 using HTTPS

[Target port] - Enter 80

Create Container App

✔ Passed

BasicsApp settingsTagsReview + create

Project details

Subscription

MCAPS-Hybrid-REQ-45325-2022-ShankarRamachandran

Resource group

rg-spt-aca-hol

Name

aca-hol-demo

Container Apps Environment (New)

Region

eastus

Container Apps Environment

env-aca-hol

Log Analytics workspace (New)

workspacegspacahol8bd8

Virtual network

Default

Zone redundancy

Disabled

App settings

Name

aca-demo

Image source

Public

Registry login server

docker.io

Image and tag

dockerr10n/aca-lab1-image:green

OS type

Linux

Command

Number of CPU cores

0.25

Memory size (Gi)

0.5

Ingress settings

Accepting traffic from anywhere

Ingress type

HTTP

Transport

Auto

Create

< Previous

Next

Download a template for automation

Instructions:

Click through [Next: Tags] and then go to [Next: Review + create >] and after the validation has Passed - click on [Create]

Showing 1 to 3 of 3 records. ☐ Show hidden types ⌵

No grouping ⌵ List view ⌵




<input type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓	
<input type="checkbox"/>  aca-demo	Container App	East US	...
<input type="checkbox"/>  managedEnvironment-rgsptacahol-8225	Container Apps Environment	East US	...
<input type="checkbox"/>  workspacegsptacahol8ba8	Log Analytics workspace	East US	...


Fig. 1

Instructions:

1. In your resource group observe that the 3 resource types depicted in the [Fig. 1] are created.

2. Click on the [Container App] resource and observe the Application URI and click on it.

Home > aca-hol-demo > rg-spt-aca-hol >

 **aca-hol-demo** ☆ ...
Container App

Search ⌵ << Delete Refresh Send us your feedback

Overview

- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

- Authentication
- Secrets
- Ingress
- Continuous deployment
- Custom domains
- Dapr
- Identity
- Service Connector (preview)
- Locks

Application

- Revision management
- Containers
- Scale

Monitoring

- Metrics
- Logs
- Log stream
- Console

Essentials JSON

Resource group (move) : rg-spt-aca-hol


Location (move) : East US

Subscription (move) : [REDACTED]


Subscription ID : [REDACTED]

Tags (edit) : [Click here to add tags](#)

Properties Monitoring Get started

 **Container App**

Provisioning Status	Succeeded
Revision Mode	Single
Latest Revision Name	aca-hol-demo--zl60poi

 **Networking**

Ingress	Enabled
Outbound Ip Addresses	20.119.109.101



Instructions:

After you click the Application URI - you should see the above displayed in your browser.

This concludes Step 1 of Lab1. You can return to the Github repo of the Lab now.