

Module 3: App Services

Evidence of the task execution

Set Up Azure Resources

- Screenshot of the Azure portal displaying the creation of the resource group for the PetStoreApp.
- Screenshot of the successful creation of the Azure Container Registry (ACR).
- Screenshots documenting the Docker image build and push process to the ACR.

```
[→ epam-cloudx-associate-azure-java git:(m3) ✘ ./module-3/step-2.bash
Logging in to ACR: module3acr
Login Succeeded
Packing source code into tar to upload...
Excluding '.gitignore' based on default ignore rules
Uploading archived source code from '/var/folders/j9/hxy2xd_x0q5fxsbt9skcgjc80000gn/T/bui
Sending context (2.389 MiB) to registry: module3acr...
Queued a build with ID: ca1
Waiting for an agent...
2024/06/14 08:30:34 Downloading source code...
2024/06/14 08:30:36 Finished downloading source code
2024/06/14 08:30:36 Using acb_vol_9c796131-1a31-4aae-9a0a-1a4cb1236a5e as the home volume
2024/06/14 08:30:36 Setting up Docker configuration...
2024/06/14 08:30:37 Successfully set up Docker configuration
2024/06/14 08:30:37 Logging in to registry: module3acr.azurecr.io
2024/06/14 08:30:37 Successfully logged into module3acr.azurecr.io
2024/06/14 08:30:37 Executing step ID: build. Timeout(sec): 28800, Working directory: ''
2024/06/14 08:30:37 Scanning for dependencies...
2024/06/14 08:30:38 Successfully scanned dependencies
2024/06/14 08:30:38 Launching container with name: build
Sending build context to Docker daemon 8.808MB
Step 1/12 : FROM maven:3.8.4-openjdk-17-slim AS build
3.8.4-openjdk-17-slim: Pulling from library/maven
f7a1c6dad281: Pulling fs layer
ea8366d5a4a5: Pulling fs layer
bff4abe573cd: Pulling fs layer
3f92e41bef06: Pulling fs layer
6581ea1ec5a5: Pulling fs layer
de879b0c951f: Pulling fs layer
ac1236d673e3: Pulling fs layer
3f92e41bef06: Waiting
6581ea1ec5a5: Waiting
de879b0c951f: Waiting
ac1236d673e3: Waiting
ea8366d5a4a5: Verifying Checksum
ea8366d5a4a5: Download complete
3f92e41bef06: Verifying Checksum
3f92e41bef06: Download complete
f7a1c6dad281: Verifying Checksum
f7a1c6dad281: Download complete
de879b0c951f: Verifying Checksum
de879b0c951f: Download complete
6581ea1ec5a5: Verifying Checksum
6581ea1ec5a5: Download complete
ac1236d673e3: Verifying Checksum
ac1236d673e3: Download complete
bff4abe573cd: Verifying Checksum
bff4abe573cd: Download complete
f7a1c6dad281: Pull complete
ea8366d5a4a5: Pull complete
bff4abe573cd: Pull complete
```

A Resource groups - Microsoft A x +

https://portal.azure.com/#view/HubsExtension/BrowseRes... Copilot Jegors_Cemisovs@epam.com EPAM

Microsoft Azure Search resources, services, and docs (G+) Home > Resource groups EPAM

+ Create Manage view Refresh Export to CSV Open query Assign tags

Filter for any field... Subscription equals all Location equals all Add filter

No grouping List view

Showing 1 to 6 of 6 records.

Name ↑↓	Subscription ↑↓	Location ↑↓
<input type="checkbox"/> cloud-shell-storage-westeurope	Visual Studio Professional Subscription	West Europe
<input type="checkbox"/> DefaultResourceGroup-WEU	Visual Studio Professional Subscription	West Europe
<input type="checkbox"/> exercism-powershell-rg	Visual Studio Professional Subscription	West Europe
<input type="checkbox"/> exercism-rg	Visual Studio Professional Subscription	West Europe
<input type="checkbox"/> module3_rg	Visual Studio Professional Subscription	East US
<input type="checkbox"/> piglatin-rg	Visual Studio Professional Subscription	Switzerland North

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Name ↑↓	Subscription ↑↓	Location ↑↓
<input type="checkbox"/> cloud-shell-storage-westeurope	Visual Studio Professional Subscription	West Europe
<input type="checkbox"/> DefaultResourceGroup-WEU	Visual Studio Professional Subscription	West Europe
<input type="checkbox"/> exercism-powershell-rg	Visual Studio Professional Subscription	West Europe
<input type="checkbox"/> exercism-rg	Visual Studio Professional Subscription	West Europe
<input type="checkbox"/> module3_rg	Visual Studio Professional Subscription	East US
<input type="checkbox"/> piglatin-rg	Visual Studio Professional Subscription	Switzerland North

module3_rg - Microsoft Azure

https://portal.azure.com/#@EPAM.onmicrosoft.com/resourcegroups/module3_rg

Microsoft Azure Search resources, services, and docs (G+)

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Home > Resource groups >

module3_rg

Resource group

Search

Create Manage view Delete resource group Refresh Export to CSV Open query

Overview Essentials JSON View

Activity log Access control (IAM) Tags Resource visualizer Events

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 1 of 1 records. Show hidden types No grouping List view

Name ↑	Type ↑	Location ↑
module3acr	Container registry	East US

Deployments Security Deployment stacks Policies Properties

module3acr - Microsoft Azure

https://portal.azure.com/#@EPAM.onmicrosoft.com/resourcegroups/module3_rg/modules/module3acr

Microsoft Azure Search resources, services, and docs (G+)

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Home > Resource groups > module3_rg > module3acr

module3acr | Repositories

Container registry

Search Refresh Manage Deleted Repositories

Settings

- Access keys
- Encryption
- Identity
- Networking
- Microsoft Defender for Cloud
- Properties
- Locks

Services

- Repositories
- Webhooks

New to ACR, Artifact streaming helps pull images faster from AKS clusters. The 'Artifact streaming status' column shows which repositories are using this feature. [Learn more](#)

Search to filter repositories ...

Repositories ↑	Cache Rule
petstoreapp	...
petstoreorderservice	...
petstorepetservice	...
petstoreproductservice	...

Deploy Services to Azure App Services

- Screenshots of the Azure portal:
 - Creation of App Service Plans for PetStoreApp (Web) and Public API Services.
 - Deployment of PetStoreApp (Web) to two different regions.
 - Configuration of environment variables for services communication.
 - Successful navigation between pages without errors.

```
→ epam-cloudx-associate-azure-java git:(m3) ✘ chmod +x module-3/step-3.bash
→ epam-cloudx-associate-azure-java git:(m3) ✘ ./module-3/step-3.bash
Creating App Service plan: asp-web-eastus in region: eastus
 Readonly attribute name will be ignored in class <class 'azure.mgmt.web.v2023_01_01.models._models_py3.AppServicePlan'>
{
    "elasticScaleEnabled": false,
    "extendedLocation": null,
    "freeOfferExpirationTime": "2024-07-14T10:45:17.136666",
    "geoRegion": "East US",
    "hostingEnvironmentProfile": null,
    "hyperV": false,
    "id": "/subscriptions/72db4666-a351-4db6-b7fd-2cc68aa2b111/resourceGroups/module3_rg/providers/Microsoft.Web/serverfarms/asp-web-eastus",
    "isSpot": false,
    "isXenon": false,
    "kind": "linux",
    "kubeEnvironmentProfile": null,
    "location": "eastus",
    "maximumElasticWorkerCount": 1,
    "maximumNumberOfWorkers": 0,
    "name": "asp-web-eastus",
    "numberOfSites": 0,
    "numberOfWorkers": 1,
    "perSiteScaling": false,
    "provisioningState": "Succeeded",
    "reserved": true,
    "resourceGroup": "module3_rg",
    "sku": {
        "capabilities": null,
        "capacity": 1,
        "family": "B",
        "locations": null,
        "name": "B1",
        "size": "B1",
        "skuCapacity": null,
        "tier": "Basic"
    },
    "spotExpirationTime": null,
    "status": "Ready",
    "subscription": "72db4666-a351-4db6-b7fd-2cc68aa2b111",
    "tags": null,
    "targetWorkerCount": 0,
    "targetWorkerSizeId": 0,
    "type": "Microsoft.Web/serverfarms",
    "workerTierName": null,
    "zoneRedundant": false
}
Creating App Service plan: asp-web-westeuropa in region: westeuropa
 Readonly attribute name will be ignored in class <class 'azure.mgmt.web.v2023_01_01.models._models_py3.AppServicePlan'>
```

```
[→ epam-cloudx-associate-azure-java git:(m3) ✘ chmod +x module-3/step-3.bash
[→ epam-cloudx-associate-azure-java git:(m3) ✘ ./module-3/step-3.bash
Creating App Service plan: asp-web-eastus in region: eastus
 Readonly attribute name will be ignored in class <class 'azure.mgmt.web.v2023_01_01.models._models_py3.AppServicePlan'>
{
    "elasticScaleEnabled": false,
    "extendedLocation": null,
    "freeOfferExpirationTime": "2024-07-14T10:45:17.136666",
    "geoRegion": "East US",
    "hostingEnvironmentProfile": null,
    "hyperV": false,
    "id": "/subscriptions/72db4666-a351-4db6-b7fd-2cc68aa2b111/resourceGroups/module3_rg/providers/Microsoft.Web/serverfarms/asp-web-eastus",
    "isSpot": false,
    "isXenon": false,
    "kind": "linux",
    "kubeEnvironmentProfile": null,
    "location": "eastus",
    "maximumElasticWorkerCount": 1,
    "maximumNumberOfWorkers": 0,
    "name": "asp-web-eastus",
    "numberOfSites": 0,
    "numberOfWorkers": 1,
    "perSiteScaling": false,
    "provisioningState": "Succeeded",
    "reserved": true,
    "resourceGroup": "module3_rg",
    "sku": {
        "capabilities": null,
        "capacity": 1,
        "family": "B",
        "locations": null,
        "name": "B1",
        "size": "B1",
        "skuCapacity": null,
        "tier": "Basic"
    },
    "spotExpirationTime": null,
    "status": "Ready",
    "subscription": "72db4666-a351-4db6-b7fd-2cc68aa2b111",
    "tags": null,
    "targetWorkerCount": 0,
    "targetWorkerSizeId": 0,
    "type": "Microsoft.Web/serverfarms",
    "workerTierName": null,
    "zoneRedundant": false
}
Creating App Service plan: asp-web-westeuropa in region: westeuropa
 Readonly attribute name will be ignored in class <class 'azure.mgmt.web.v2023_01_01.models._models_py3.AppServicePlan'>
```

- Resource group

Search

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Overview

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Locks

Cost Management

Cost analysis

Cost alerts (preview)

Budgets

Advisor recommendations

Monitoring

Insights (preview)

^ Essentials

Subscription ([move](#)) : [Visual Studio Professional Subscription](#)

Deployments : [No deployments](#)

Subscription ID : 72db4666-a351-4db6-b7fd-2cc68aa2b111

Location : East US

Tags ([edit](#)) : [Add tags](#)

Resources Recommendations

Filter for any field...

Type equals all [X](#)

Location equals all [X](#)

[+ Add filter](#)

Showing 1 to 9 of 9 records. Show hidden types [i](#)

No grouping [▼](#)

<input type="checkbox"/> Name ↑↓	Type ↑↓	Location ↑↓
asp-api-eastus	App Service plan	East US
asp-web-eastus	App Service plan	East US
asp-web-westeurope	App Service plan	West Europe
module3acr	Container registry	East US
petstoreapp-eastus	App Service	East US
petstoreapp-westeurope	App Service	West Europe
petstoreorderservice-eastus	App Service	East US
petstorepetservice-eastus	App Service	East US
petstoreproductservice-eastus	App Service	East US

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petstoreapp-eastus

Web App

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JSON Vi

Overview

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 Access control (IAM)

 Tags

 Diagnose and solve problems

 Microsoft Defender for Cloud

 Events (preview)

 Better Together (preview)

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 Identity

 Backups

 Custom domains

Essentials

Resource group ([move](#)) : [module3_rg](#)

Default domain : [petstoreapp-eastus.azurewebsites.net](#)

Status : Running

App Service Plan : [asp-web-eastus \(B1: 1\)](#)

Location ([move](#)) : East US

Operating System : Linux

Subscription ([move](#)) : [Visual Studio Professional Subscription](#)

Health Check : Not Configured

Subscription ID : 72db4666-a351-4db6-b7fd-2cc68aa2b111

Tags ([edit](#)) : [Add tags](#)

Properties

Monitoring Logs Capabilities Notifications Recommendations

Web app

Name : petstoreapp-eastus

Deployment Center

Deployment logs

[View logs](#)

Publishing model : Container

Container Image : module3acr.azurecr.io/petstoreapp:v1

Application Insights

Name

[Enable Application Insights](#)

Domains

Default domain : petstoreapp-eastus.azurewebsites.net

Custom domain : [Add custom domain](#)

Networking

Virtual IP address : 20.119.8.50

Hosting

Plan Type : App Service plan

Outbound IP addresses : 4.255.19.126,4.255.19.133,4.255...

[Show More](#)

Name : asp-web-eastus

Additional Outbound IP addresses : 4.255.19.126,4.255.19.133,4.255...

[Show More](#)

Operating System : Linux

Virtual network integration : Not configured

EPAM AI DIAL

x | A petstoreorderservice-eastus - x | Azure Pet Store x +

← ⏪ ⏹ 🔍 https://petstoreapp-eastus.azurewebsites.net

A Hi Guest, Welcome to the Azure Pet Store for CloudX Java Azure Dev Course!

Cart icon with 0 items

Welcome to the Azure Pet Store

Start exploring & learning Azure today!

Begin by shopping for products below!



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Got it!

petstoreorderservice-eastus

Web App

Search

Browse Stop Swap Restart Delete Refresh Download publish profile Reset publish profile Share to mobile Send us your feedback

Overview Activity log Access control (IAM) Tags Diagnose and solve problems Microsoft Defender for Cloud Events (preview) Better Together (preview)

Resource group (move) : module3_rg Status : Running Location (move) : East US Subscription (move) : Visual Studio Professional Subscription Subscription ID : 72db4666-a351-4db6-b7fd-2cc68aa2b111 Tags (edit) : Add tags

Default domain : petstoreorderservice-eastus.azurewebsites.net App Service Plan : asp-api-eastus (B1: 1) Operating System : Linux Health Check : Cannot fetch health check data. Please try again later.

Properties Monitoring Logs Capabilities Notifications Recommendations

Web app

Name	petstoreorderservice-eastus
Publishing model	Container
Container Image	module3acr.azurecr.io/petstoreorderservice:v1

Domains

Default domain	petstoreorderservice-eastus.azurewebsites.net
Custom domain	Add custom domain

Hosting

Plan Type	App Service plan
Name	asp-api-eastus
Operating System	Linux

Deployment Center

Deployment logs View logs

Application Insights

Name Enable Application Insights

Networking

Virtual IP address	20.119.8.50
Outbound IP addresses	4.255.19.126,4.255.19.133,4.255... Show More
Additional Outbound IP addresses	4.255.19.126,4.255.19.133,4.255... Show More
Virtual network integration	Not configured

JSON View

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Environment variables Configuration Authentication Application Insights Identity Backups Custom domains

The screenshot shows a web browser window with multiple tabs open. The active tab is titled "Swagger UI". The URL in the address bar is <https://petstoreorderservice-eastus.azurewebsites.net/swagger-ui/index.html>. The browser interface includes standard navigation buttons (back, forward, search, etc.) and a toolbar with various icons.

The main content area displays the "Swagger Petstore" documentation, version 1.0.6. It features a dark header with the "Swagger" logo and the text "Supported by SMARTBEAR". A dropdown menu labeled "Select a definition" is set to "default".

The page includes the following information:

- [Base URL: petstoreorderservice-eastus.azurewebsites.net/]
- <https://petstoreorderservice-eastus.azurewebsites.net/v2/api-docs>
- This is a sample server Petstore server. You can find out more about Swagger at <http://swagger.io> or on [irc.freenode.net, #swagger](#). For this sample, you can use the api key **special-key** to test the authorization filters.
- [Contact the developer](#)
- [Apache 2.0](#)

Below this, there are three main sections listed as links:

- store-api-controller** the store API >
- store** >
- Models** >

{x} petstoreapp-eastus | Environment variables

Web App

X



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Add



Refresh



Show values



Advanced edit



I

Pull reference values

Name	Value	Deployment slot setting	Source	Delete
DOCKER_REGISTRY_SERVER_PASSWORD	Show value		App Service	
DOCKER_REGISTRY_SERVER_URL	https://module3acr.azurecr.io		App Service	
DOCKER_REGISTRY_SERVER_USERNAME	module3acr		App Service	
PETSTOREAPP_SERVER_PORT	8080		App Service	
PETSTOREORDERSERVICE_URL	https://petstoreorderservice-eastus.azurewebsites.net:8083		App Service	
PETSTOREPETSERVICE_URL	https://petstorepetservice-eastus.azurewebsites.net:8081		App Service	
PETSTOREPRODUCTSERVICE_URL	https://petstoreproductservice-eastus.azurewebsites.net:8082		App Service	
WEBSITES_ENABLE_APP_SERVICE_STORAGE	false		App Service	
WEBSITES_PORT	8080		App Service	

Apply

Discard

Send us your feedback

{x} petstoreorderservice-eastus | Environment variables

Web App

X

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Settings

[{x} Environment variables](#)[Configuration](#)[Authentication](#)[Application Insights](#)[Identity](#)[Backups](#)[Custom domains](#)

+ Add



Refresh



Show values



Advanced edit



...

Name

Value

Deployment slot setting

Source

Delete

DOCKER_REGISTRY_SERVER_PASSWORD

Show value

App Service



DOCKER_REGISTRY_SERVER_URL

Show value

App Service



DOCKER_REGISTRY_SERVER_USERNAME

Show value

App Service



PETSTOREORDERSERVICE_SERVER_PORT

8083

App Service



PETSTOREPRODUCTSERVICE_URL

http://petstoreproductservice:8082

App Service



WEBSITES_ENABLE_APP_SERVICE_STORAGE

false

App Service



WEBSITES_PORT

8080

App Service

[Apply](#)[Discard](#)[Send us your feedback](#)

EPAM AI DIAL | module3_rg - Microsoft Azure | Azure Pet Store

https://petstoreapp-eastus.azurewebsites.net/dogbreeds?category=Dog

A Hi Guest, Welcome to the Azure Pet Store for CloudX Java Azure Dev Course!

Shop by Pet Breeds

Shop for connection timed out: petstorepetservice-eastus.azurewebsites.net/20.119.8.50:8080; nested exception is io.netty.channel.ConnectTimeoutException: connection timed out:
petstorepetservice-eastus.azurewebsites.net/20.119.8.50:8080

© 2024 Azure Pet Store
container:
169.254.130.2/petstoreapp-
eastus_873c7b27
version:
unknown
date:
unknown
session:
41ED7698A254BE707A2424BB05815421

Dog Products
[Shop by breeds](#)

Cat Products
[Shop by breeds](#)

Fish Products
[Shop by breeds](#)

Please note, The Azure Pet Store is comprised of hypothetical open source applications developed to help you learn about and build awesome software on Azure. This is not official Microsoft documentation but rather an opinionated approach/guidance to help you get started. It is comprised of the Pet Store Web Application and several Pet Store Microservices that are referenced in the Azure Pet Store Reference Architecture located [here](#). Covered are the many awesome services and features of Azure such as CI/CD, TDD, Automated Testing, Container Strategy with App Services and AKS, Correlated Telemetry, Power Apps, Serverless Functions, Logic Apps and much more.