


Lab 5 D23125496

1.) <https://github.com/JakobReinshagen/Cloud-Computing/>
<https://hub.docker.com/repository/docker/jakobreinshagen/cloudcomputing/general>

2.) First create a Container registry:

[Home](#) > [Container registries](#) >

 **Create container registry** ...

Basics

Networking

Encryption

Tags

Review + create

Azure Container Registry allows you to build, store, and manage container images and artifacts in a private registry for all types of container deployments. Use Azure container registries with your existing container development and deployment pipelines. Use Azure Container Registry Tasks to build container images in Azure on-demand, or automate builds triggered by source code updates, updates to a container's base image, or timers. [Learn more](#)

Project details

Subscription *
Resource group *

Azure for Students
CloudComputing_group
[Create new](#)

Instance details

Registry name *
Location *
Use availability zones ⓘ
Pricing plan * ⓘ

containerregistryReg
UK West
☐
Standard

✓
.azurecr.io

Availability zones are activated on premium registries and in regions that support availability zones. [Learn more](#)

Second create a kubernetes cluster service:


Create Kubernetes cluster ...

Project details

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

Subscription * ⓘ	<div>Azure for Students</div>
Resource group * ⓘ	<div>CloudComputing_group</div> <div>Create new</div>

Cluster details

Cluster preset configuration *	<div> Dev/Test</div> <div>To quickly customize your Kubernetes cluster, choose one of the preset configurations above. You can modify these configurations at any time. Compare presets</div>
Kubernetes cluster name * ⓘ	<div>cloudcomputingKubernetes</div>
Region * ⓘ	<div>(Europe) UK South</div>
Availability zones ⓘ	<div>None</div>
AKS pricing tier ⓘ	<div>Free</div>
Kubernetes version * ⓘ	<div>1.27.7 (default)</div>
Automatic upgrade ⓘ	<div>Enabled with patch (recommended)</div>

Choose between local accounts or Azure AD for authentication and Azure RBAC or Kubernetes RBAC for your authorization needs.

Authentication and Authorization ⓘ	<div>Local accounts with Kubernetes RBAC</div>
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ⓘ Once the cluster is deployed, use the Kubernetes CLI to manage RBAC configurations. [Learn more](#)

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After that I created a project on azure dev:

Create new project

Project name *

Lab6

Description

Visibility

Public
Anyone on the internet can view the project. Certain features like TFVC are not supported.

Private
Only people you give access to will be able to view this project.

Public projects are disabled for your organization. You can turn on public visibility with [organization policies](#).

Advanced

Cancel Create

After that you create a new pipeline there you select git as your source and select a kubernetes network:

Configure your pipeline

Connect Select **Configure** Review

New pipeline

Deploy to Azure Kubernetes Service
Build and push image to Azure Container Registry; Deploy to Azure Kubernetes Service

Cluster: cloudComputingKub

Namespace: ☐ New ☒ Existing
default

Container registry: cloudComputingReg

Image Name: jakobreinshagcloudcomputing

Service Port: 3000

☐ Enable Review App flow for Pull Requests

Back Validate and configure

After that you commit a file called azure-pipelines.yaml to git. Now after every push in the main branch the pipeline rebuild itself automatically and shows up on the kubernetes network.

3.) I in the app if you are finished, the item won't be crossed out. The text is now crossed out with a cross.