Cloud Development, 2021 fall.
Homework 8

Report

Azure DevOps

made by Zhuman Rakhat

Almaty 2021

Tasks

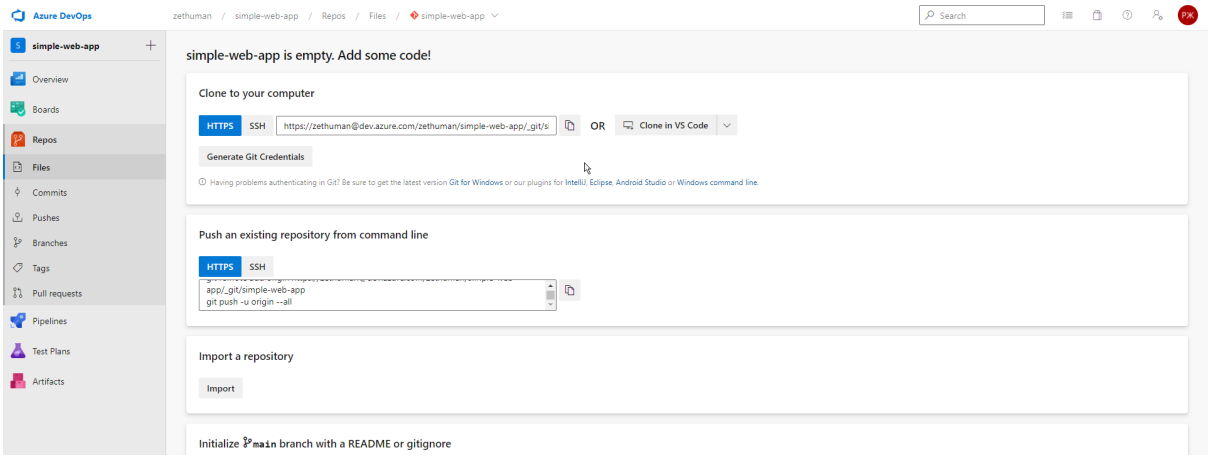
- [x] ~~Create a simple web app.~~
- [x] ~~Commit it in the Azure DevOps project.~~
- [x] ~~Create a CI process using Pipelines and a CD process using Releases. You can use pure YAML or Classic way (using graphical interface).~~
- [x] ~~As a result, your application has to be published as a Azure Web App when Release will be completed.~~
- [x] ~~Make sure your Azure Web App reflects any changes you are making in your IDE (Visual Studio Code) and committing.~~

Extra things

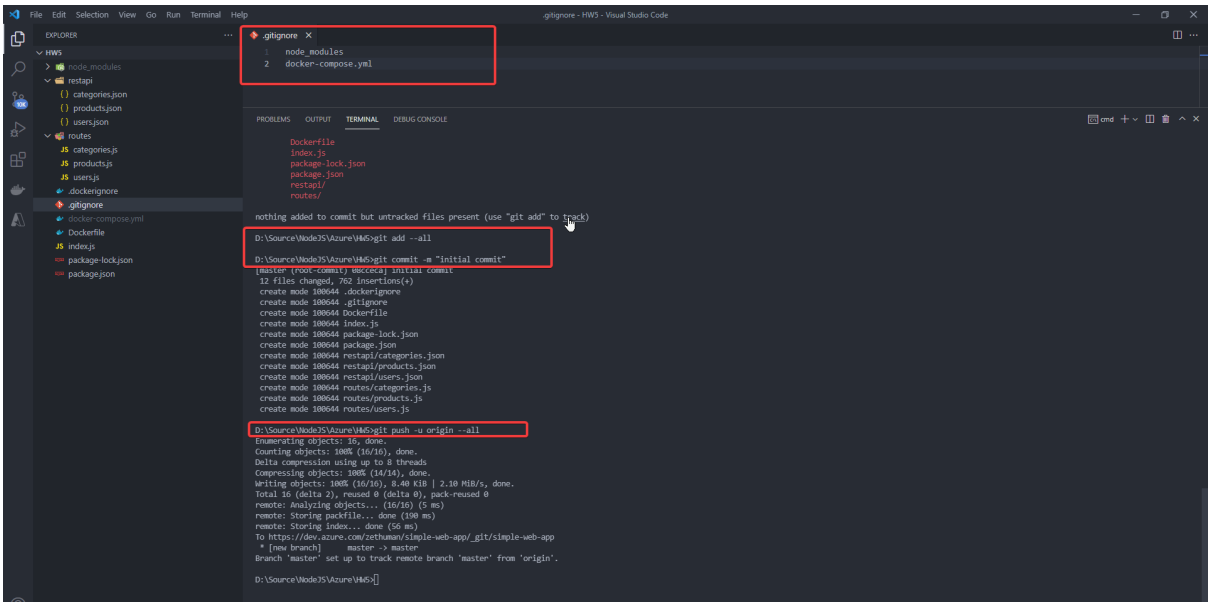
- [x] ~~Configure self-host for CI/CD pulls~~

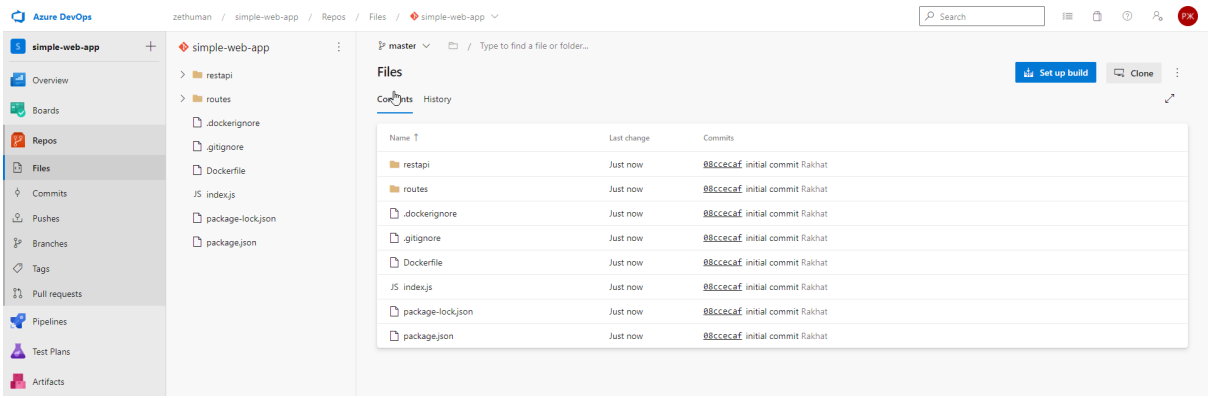
Report

Create a simple web app (an application created for 5 homework will be used)
Create project in Azure DevOps



Commit it in the Azure DevOps

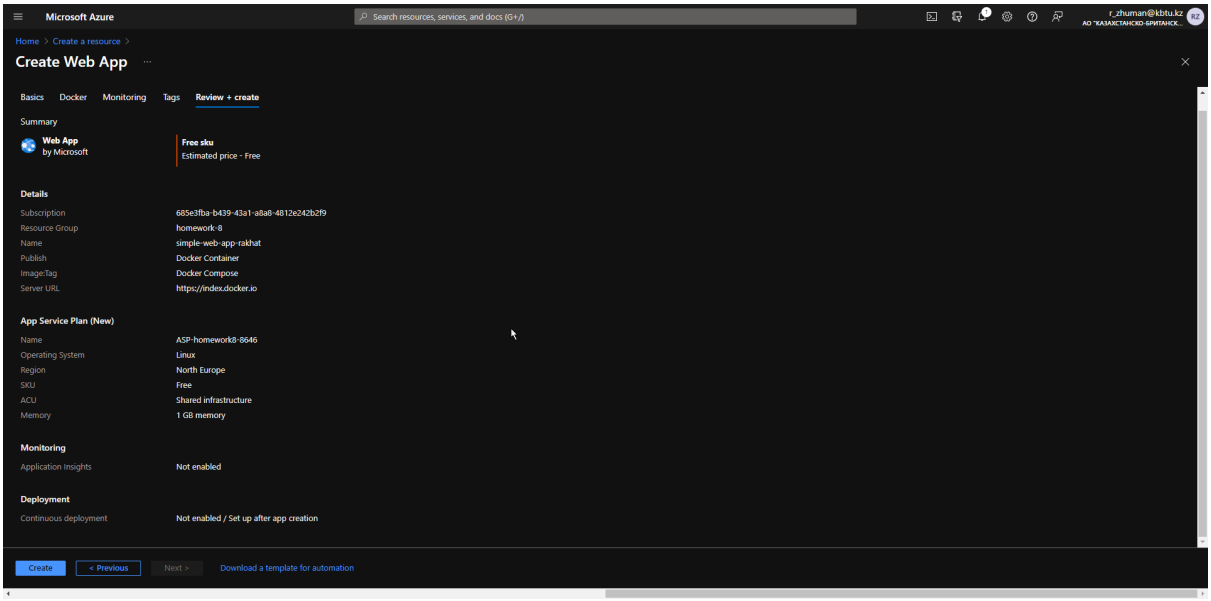




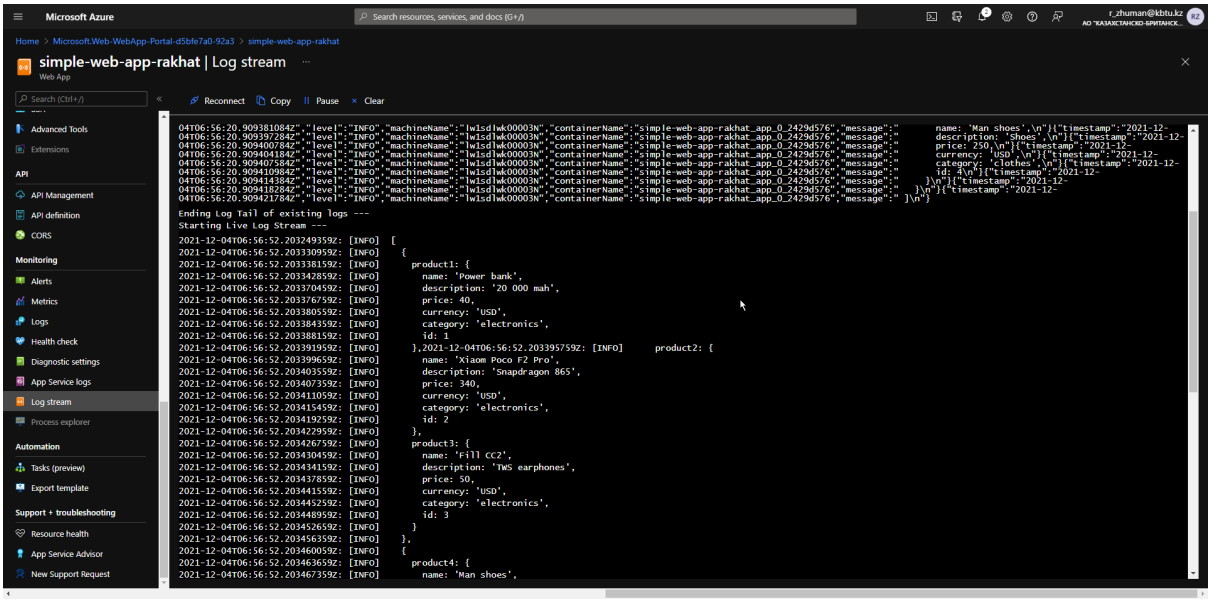
Create Web App on Portal

Build and deploy to Docker Hub

Create web app with container

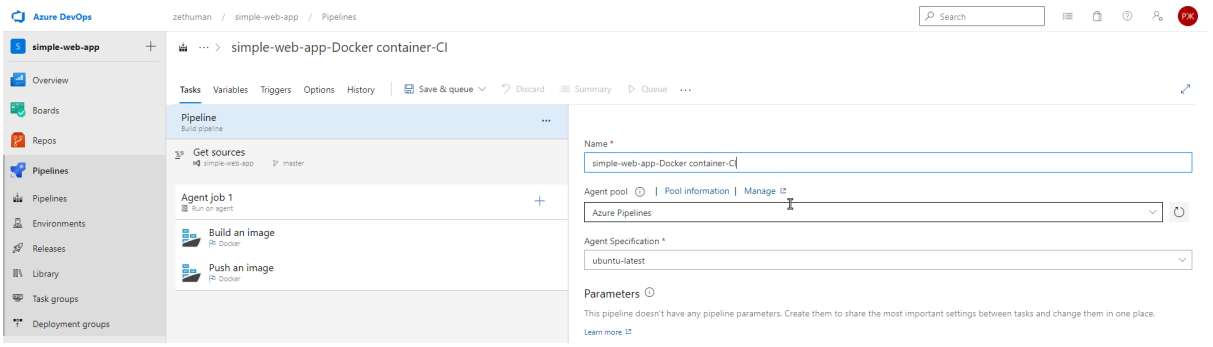


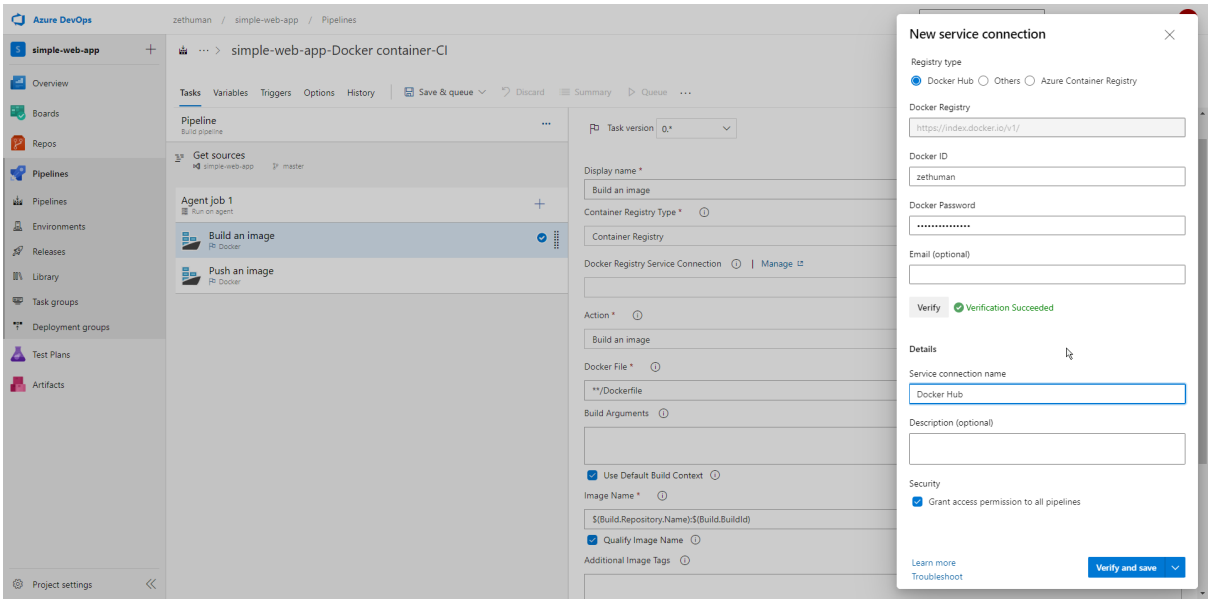
Check logs

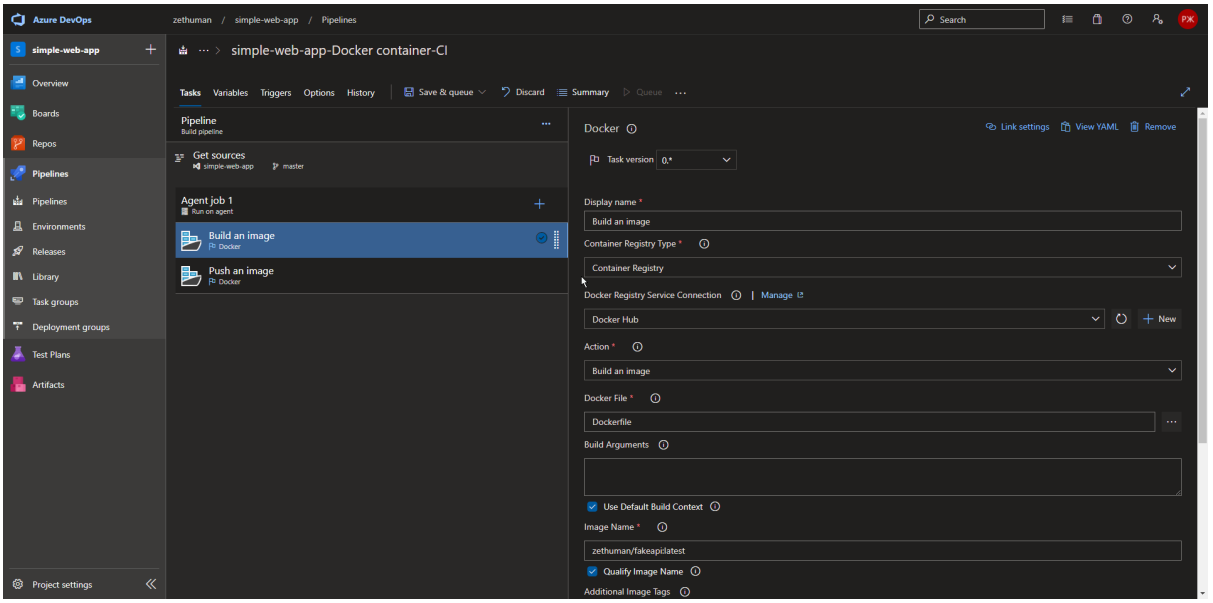


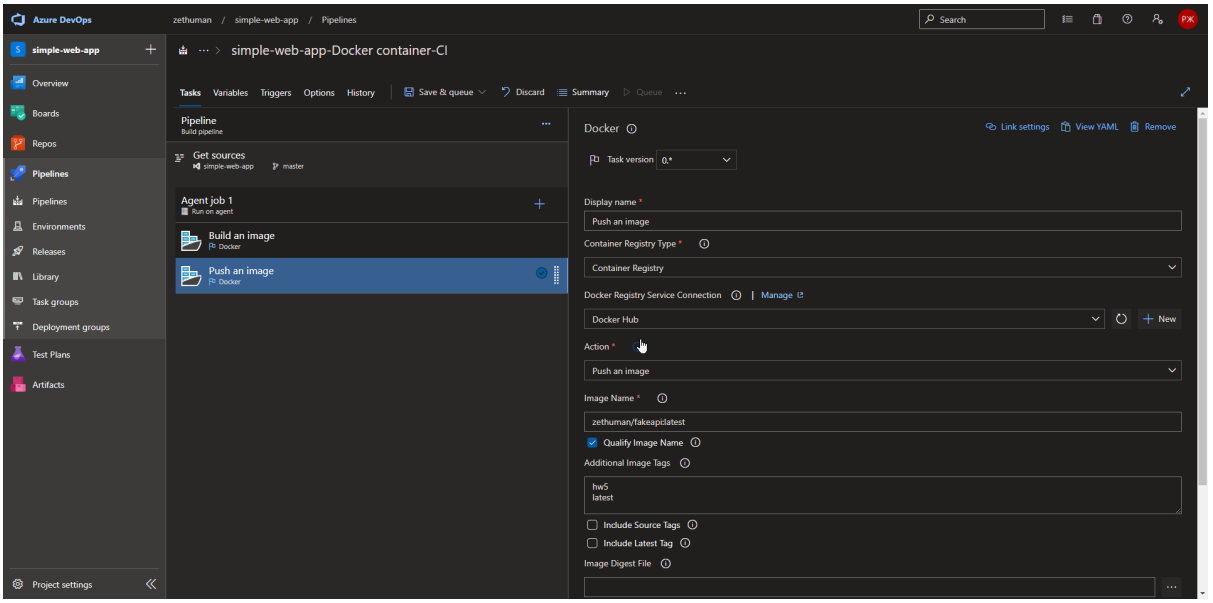
Create a CI process using Pipelines

General settings






Azure DevOps
zethuman / simple-web-app / Pipelines
Search
simple-web-app
simple-web-app-Docker container-CI
Overview
Boards
Repos
Pipelines
Pipelines
Environments
Releases
Library
Task groups
Deployment groups
Test Plans
Artifacts
Project settings
Tasks Variables Triggers Options History
Save & queue
Discard
Summary
Queue
Pipeline
Build pipeline
Get sources
simple-web-app
master
Agent job 1
Run on agent
Build an image
Docker
Push an image
Docker
Docker
Link settings
View YAML
Remove
Task version 0.*
Display name *
Build an image
Container Registry Type *
Container Registry
Docker Registry Service Connection
Manage
Docker Hub
New
Action *
Build an image
Docker File *
Dockerfile
Build Arguments
Use Default Build Context
Image Name *
zethuman/fakeapi:latest
Qualify Image Name
Additional Image Tags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simple-web-app-Docker container-CI
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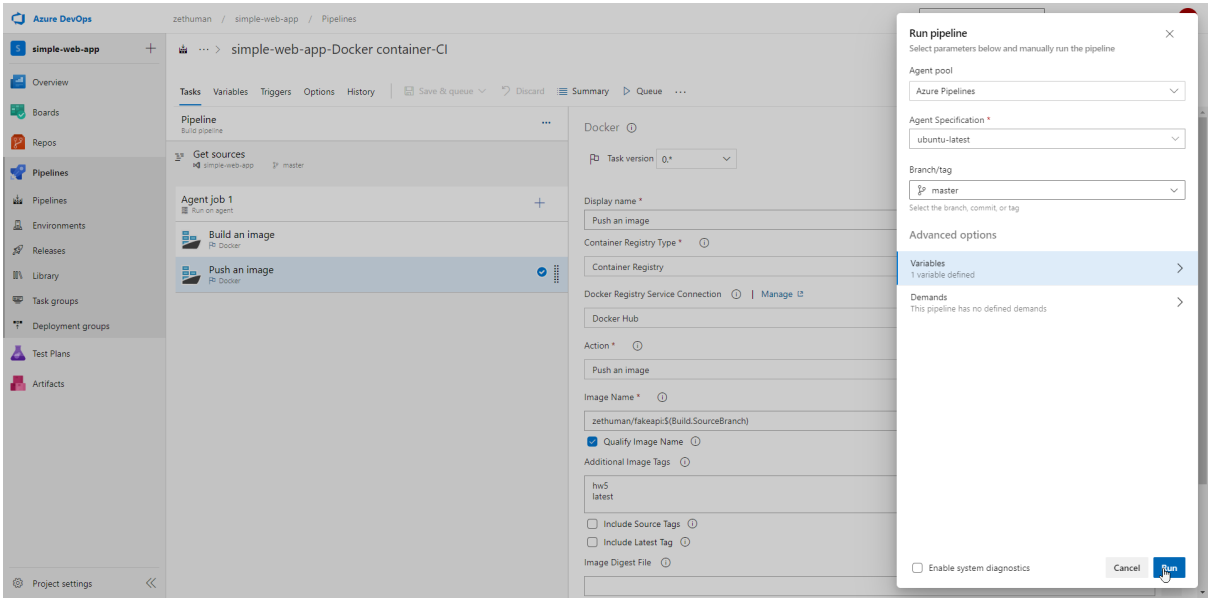
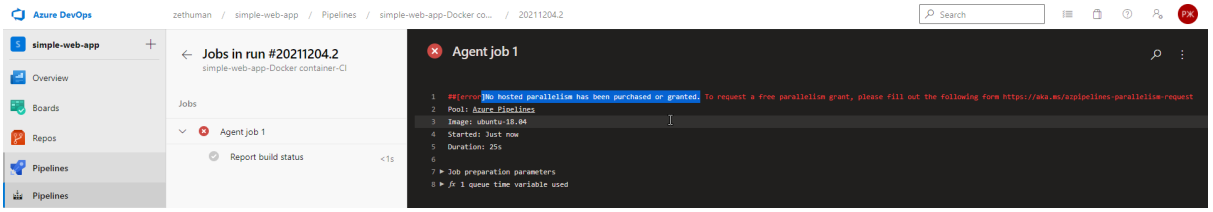
Container Registry
Docker Registry Service Connection
Manage
Docker Hub
New
Action *
Push an image
Image Name *
zethuman/fakeapi:latest
Qualify Image Name
Additional Image Tags
hw5
latest
Include Source Tags
Include Latest Tag
Image Digest File

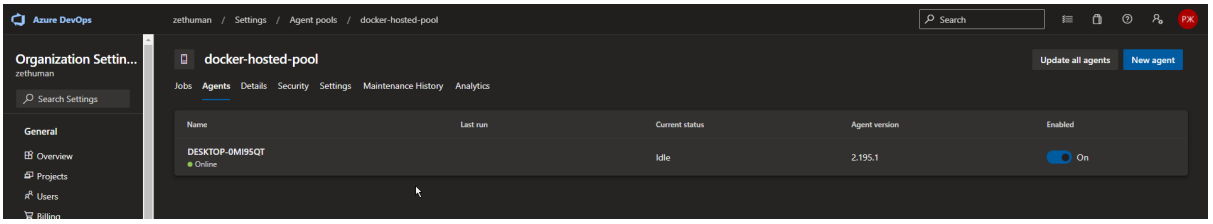


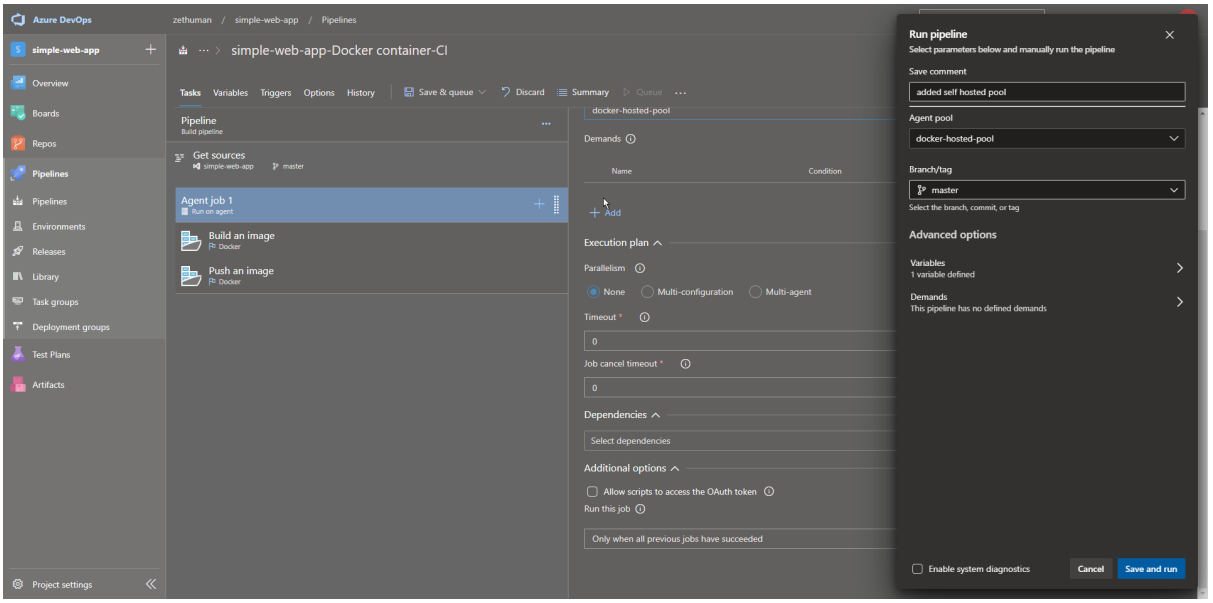


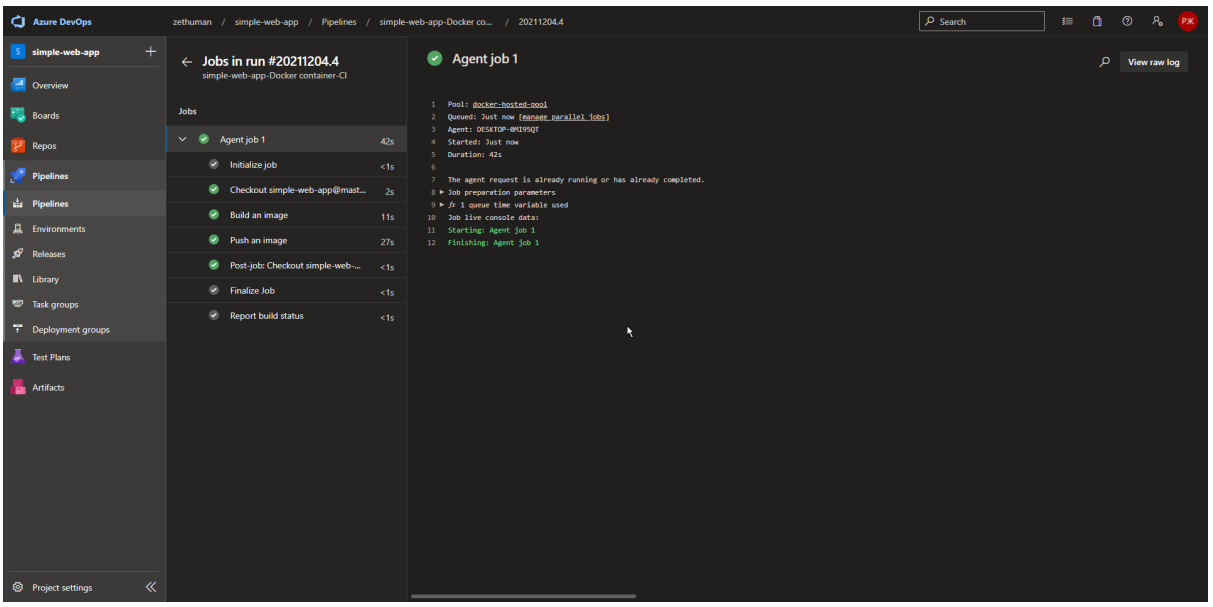
!!! Requested form to Microsoft, to access parallelism

I decided not to wait, but to raise the host at my place

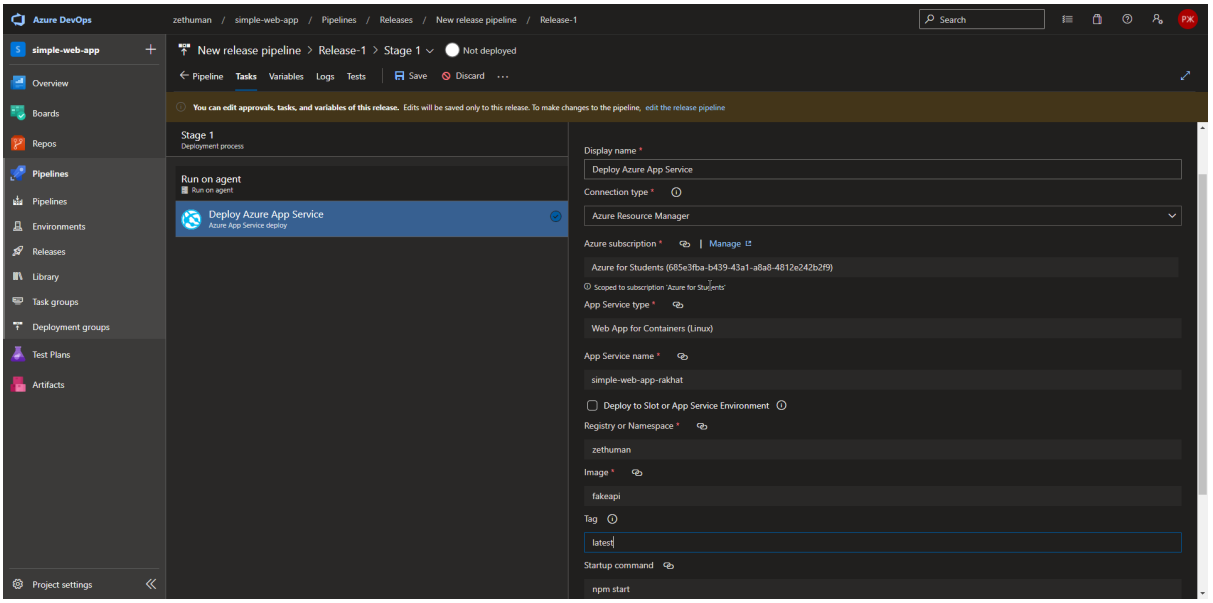
```
PS D:\Source\Azure\vsts-agent-win-x64-2.195.1> .\config.cmd

  ___                      ______ _            _ _
 / _ \                     | ___ (_)          | (_)
/ /_\ \_____ _ _ __ ___    | |_/ /_ _ __   ___| |_ _ __   ___  ___
|  _  |_  / | | '__/ _ \   |  __/| | '_ \ / _ \ | | '_ \ / _ \/ __|
| | | |/ /| |_| | |  __/   | |   | | |_) |  __/ | | | | |  __/\__ \
\_| |_/___|\__,_|_|  \___|  \_|   |_| .__/ \___|_|_|_| |_|\___||___/
                                    | |
        agent v2.195.1              |_|          (commit fc94fec)

>> Connect:

Enter server URL > https://dev.azure.com/zethuman
Enter authentication type (press enter for PAT) >
Enter personal access token > **************************************************
Connecting to server ...

>> Register Agent:

Enter agent pool (press enter for default) > docker-hosted-pool
Enter agent name (press enter for DESKTOP-OMI95QT) >
Scanning for tool capabilities.
Connecting to the server.
Successfully added the agent
Testing agent connection.
Enter work folder (press enter for _work) >
2021-12-04 12:24:06z: Settings Saved.
Enter run agent as service? (Y/N) (press enter for N) > N
Enter configure autologon and run agent on startup? (Y/N) (press enter for N) > N
PS D:\Source\Azure\vsts-agent-win-x64-2.195.1> .\run.cmd
Scanning for tool capabilities.
Connecting to the server.
2021-12-04 12:24:44z: Listening for Jobs
```

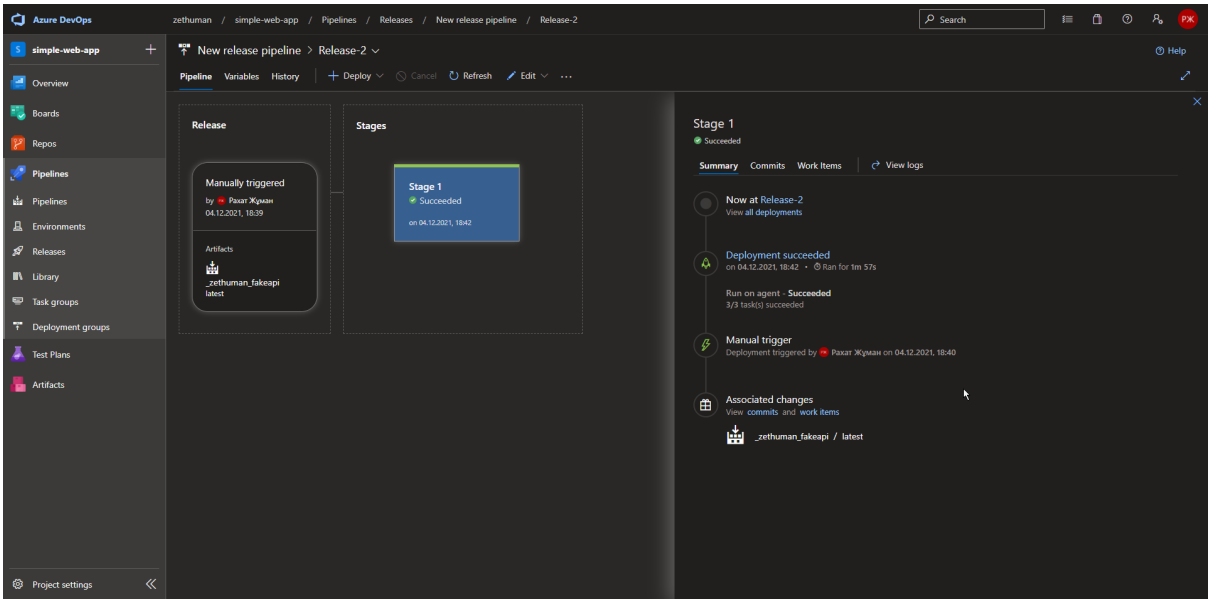




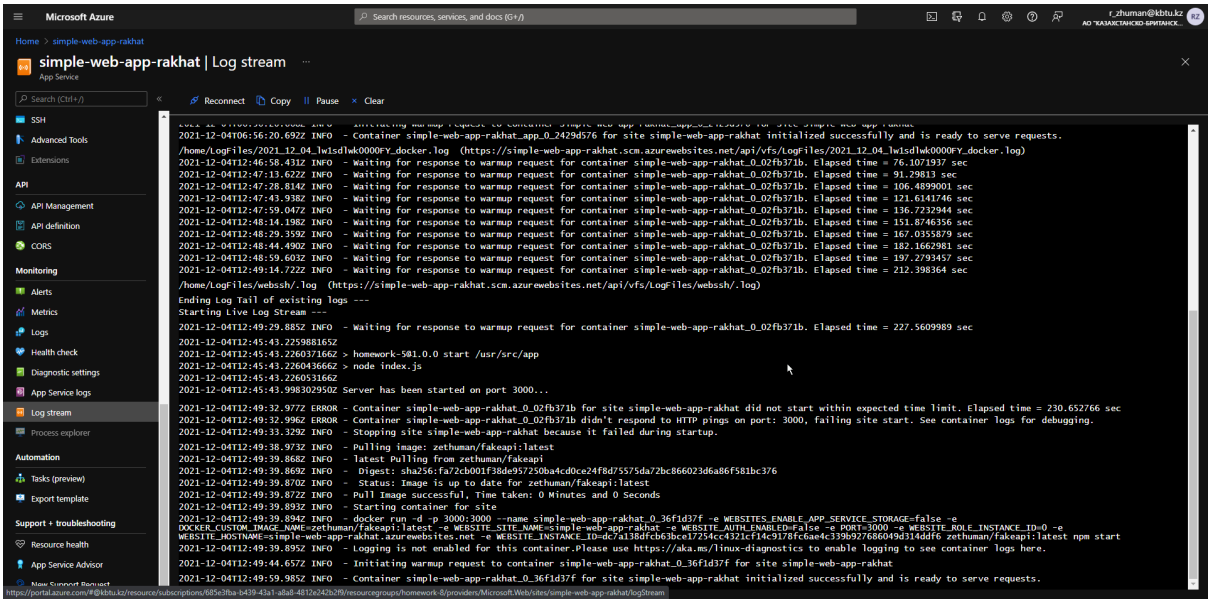


Create a CD process using Releases


Azure DevOps
zethuman / simple-web-app / Pipelines / Releases / New release pipeline / Release-1
Search
simple-web-app
New release pipeline > Release-1 > Stage 1
Not deployed
Pipeline Tasks Variables Logs Tests Save Discard
You can edit approvals, tasks, and variables of this release. Edits will be saved only to this release. To make changes to the pipeline, edit the release pipeline
Overview
Boards
Repos
Pipelines
Environments
Releases
Library
Task groups
Deployment groups
Test Plans
Artifacts
Project settings
Stage 1
Deployment process
Run on agent
Run on agent
Deploy Azure App Service
Azure App Service deploy
Display name *
Deploy Azure App Service
Connection type *
Azure Resource Manager
Azure subscription * Manage
Azure for Students (685e3fba-b439-43a1-a8a8-4812e242b2f9)
Scoped to subscription 'Azure for Students'
App Service type *
Web App for Containers (Linux)
App Service name *
simple-web-app-rakhat
Deploy to Slot or App Service Environment
Registry or Namespace *
zethuman
Image *
fakeapi
Tag
latest
Startup command
npm start

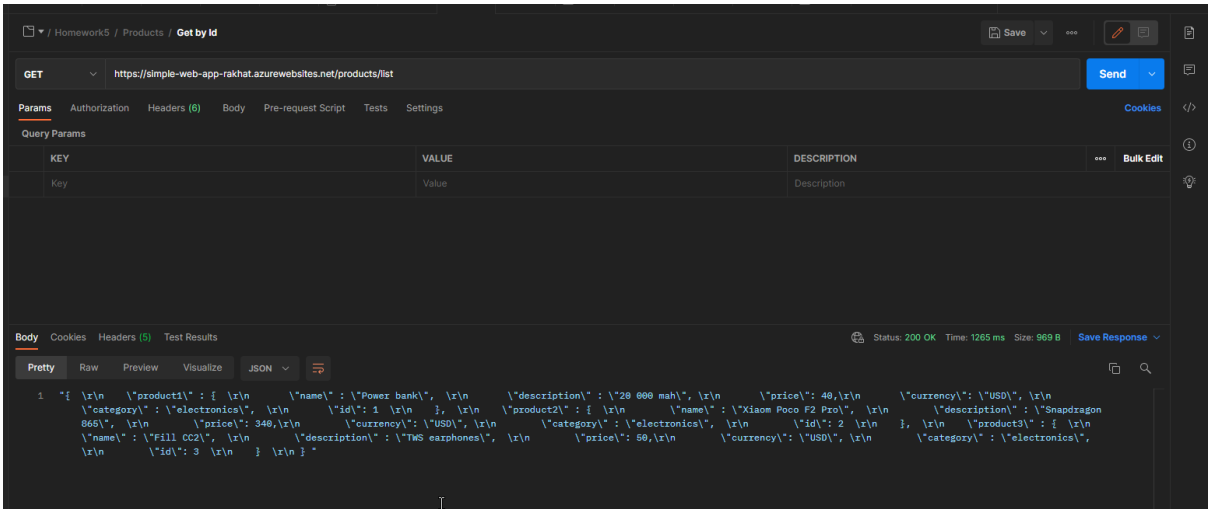

Azure DevOps
zethuman / simple-web-app / Pipelines / Releases / New release pipeline / Release-2
Search
simple-web-app
New release pipeline > Release-2
Help
Pipeline Variables History Deploy Cancel Refresh Edit
Release
Stages
Manually triggered
by Рахат Жуман
04.12.2021, 18:39
Artifacts
_zethuman_fakeapi
latest
Stage 1
Succeeded
on 04.12.2021, 18:42
Stage 1
Succeeded
Summary Commits Work Items View logs
Now at Release-2
View all deployments
Deployment succeeded
on 04.12.2021, 18:42 · Ran for 1m 57s
Run on agent - Succeeded
3/3 task(s) succeeded
Manual trigger
Deployment triggered by Рахат Жуман on 04.12.2021, 18:40
Associated changes
View commits and work items
_zethuman_fakeapi / latest

Tests



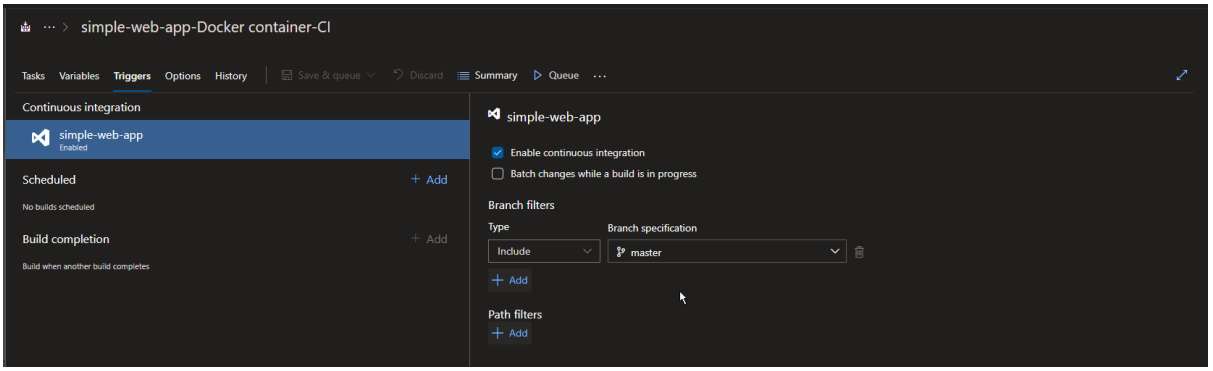
I will add changes to be sure that it works

Before commit it return not in JSON format



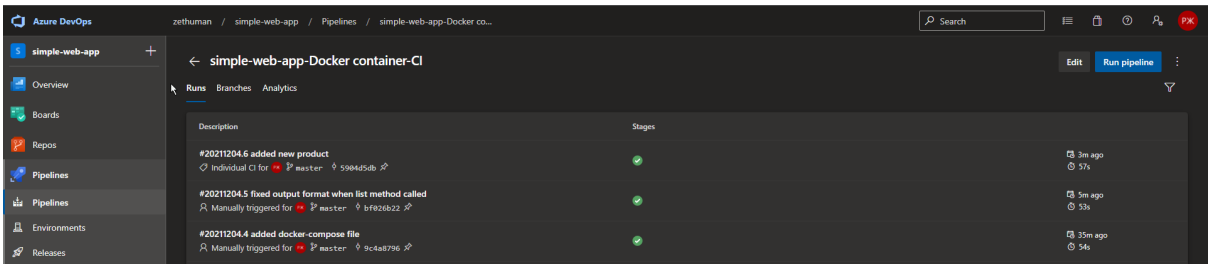
Fixing and commit

Enabling CI

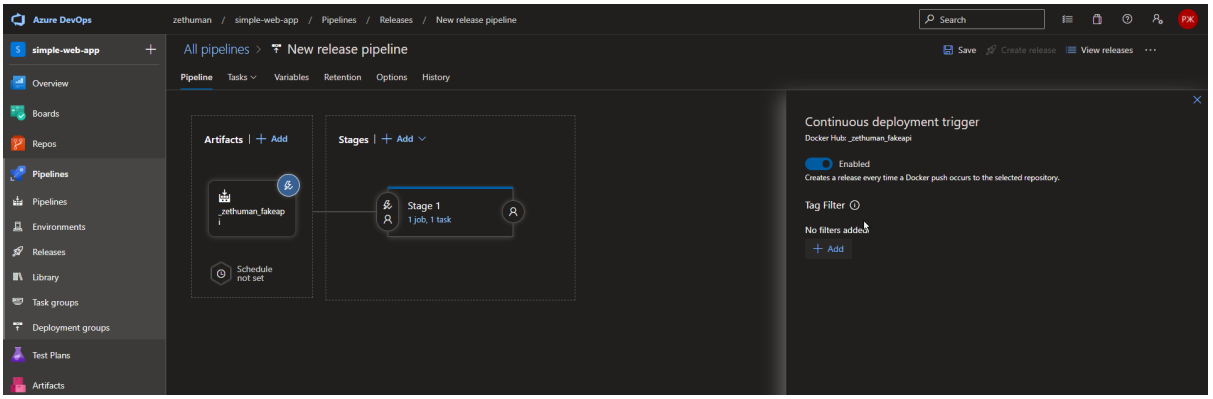


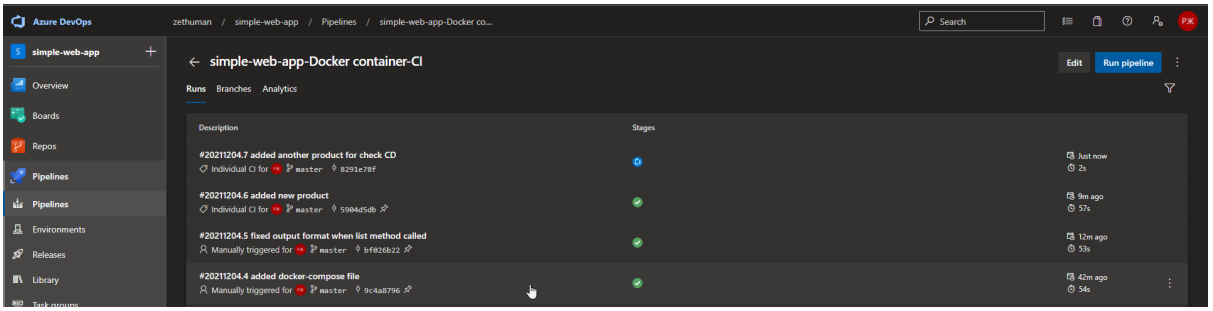
Another commit for trigger

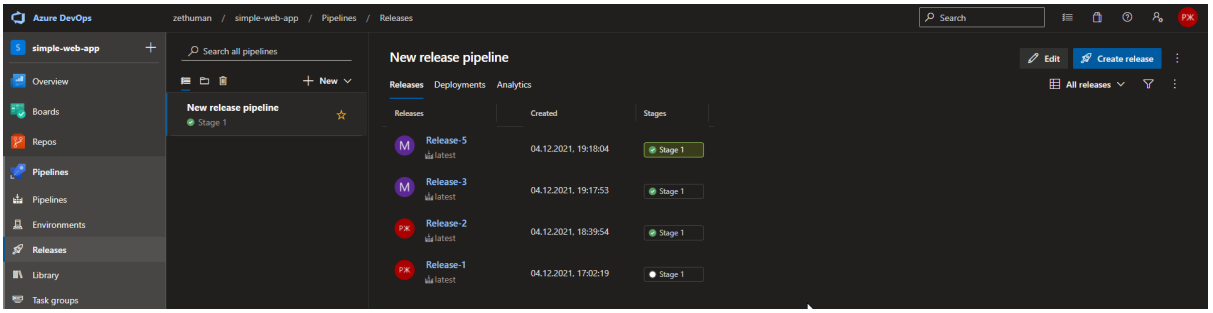
Finally get auto trigger for commit



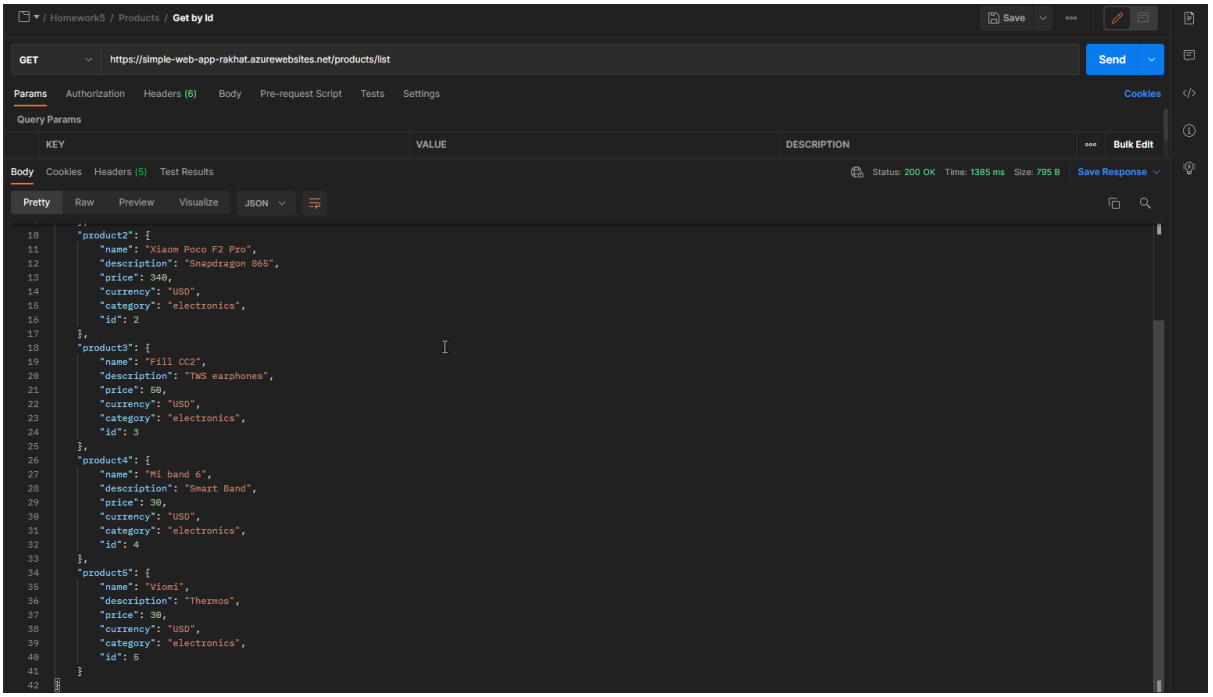
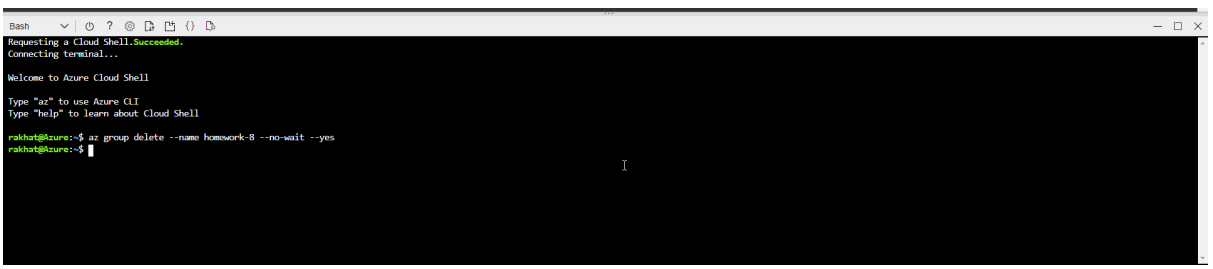
Added auto CD option







After commit return in JSON format



Clean up subscription