

1. Descarga los archivos del repositorio elegido.

Repositorio Elegido - <https://github.com/docker/awesome-compose/tree/master/aspnet-mssql>

Enlace Git repositorio - <https://github.com/rduverge/aspnet-mssql.git>

Clonamos el repositorio en local.

2. Analisis de Sonarqube

Instalar instancia local de SonarQube desde imagen de Docker

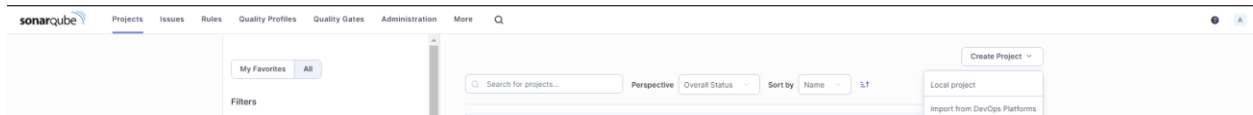
```
$ docker run -d --name sonarqube -e SONAR_ES_BOOTSTRAP_CHECKS_DISABLE=true -p 9000:9000 sonarqube:latest
```

<input type="checkbox"/>	Name	Image	Status	Port(s)	CPU (%)	Last started	Actions
<input type="checkbox"/>	sonarqube 614bdeffc1b	sonarqube	Running	9000:9000	385.11%	11 minutes	<input type="checkbox"/> ⋮

Lo tengo en un contenedor de Docker en el puerto 9000.

- login: admin
- password: admin

Creo un nuevo proyecto



1 of 2

Create a local project

Project display name *

Project key *

Main branch name *






The name of your project's default branch [Learn More](#)

Selecciono un repositorio local

Analysis Method

Use this page to manage and set-up the way your analyses are performed.

How do you want to analyze your repository?

 With Jenkins	 With GitHub Actions	 With Bitbucket Pipelines
 With GitLab CI	 With Azure Pipelines	Other CI SonarQube integrates with your workflow no matter which CI tool you're using.
Locally Use this for testing or advanced use-case. Other modes are recommended to help you set up your CI environment.		

Genero un token para analizar el proyecto

Analysis Method > Locally

Analyze your project

We initialized your project on SonarQube, now it's up to you to launch analyses!

1 Provide a token

Generate a project token

Use existing token

Token name ?

Expires in

Analyze "aspnet-mssql"

30 days

Generate



Please note that this token will only allow you to analyze the current project. If you want to use the same token to analyze multiple projects, you need to generate a global token in your [user account](#). See the [documentation](#) for more information.

The token is used to identify you when an analysis is performed. If it has been compromised, you can revoke it at any point in time in your [user account](#).

2 Run analysis on your project

Se selecciona el tipo de proyecto, este caso .NET

2 Run analysis on your project

What option best describes your project?

Maven Gradle **.NET** Other (for JS, TS, Go, Python, PHP, ...)

Which framework do you use?


.NET Core .NET Framework

Install the SonarScanner .NET Core Global Tool

As a prerequisite you need to have the sonarscanner tool installed globally using the following command:

```
dotnet tool install --global dotnet-sonarscanner
```

 Copy

 Make sure dotnet tools folder is in your path. See dotnet global tools documentation for more information.

Execute the Scanner

Running a SonarQube analysis is straightforward. You just need to execute the following commands at the root of your solution.

```
dotnet sonarscanner begin /k:"aspnet-mssql" /d:sonar.host.url="http://localhost:9000" /d:sonar.token="sqp_4443355ce0568b60ab1348d5b92f6e4d7a24fd27"
```

 Copy

```
dotnet build
```

 Copy

```
dotnet sonarscanner end /d:sonar.token="sqp_4443355ce0568b60ab1348d5b92f6e4d7a24fd27"
```

 Copy

Please visit the [documentation of the SonarScanner for .NET](#)  for more details.

Install the SonarScanner .NET Core Global Tool

```
dotnet tool install --global dotnet-sonarscanner
```

Execute the Scanner

```
dotnet sonarscanner begin -k:"aspnet-mssql" -  
d:sonar.host.url="http://localhost:9000" - d:sonar.token="{token}"
```

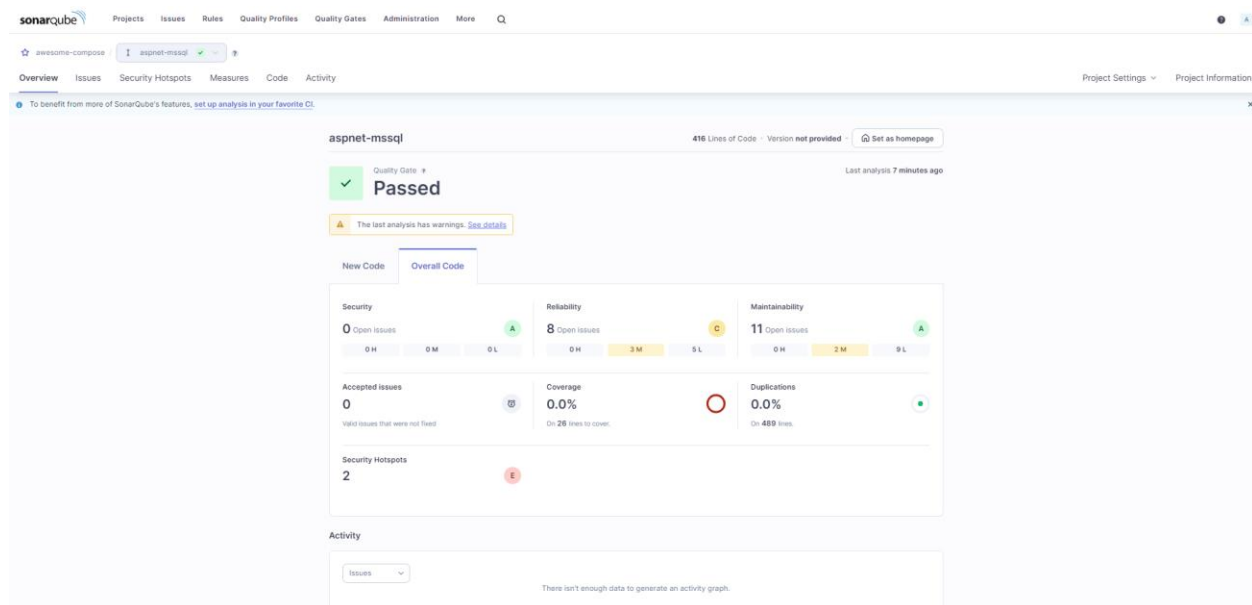
```
dotnet build
```

```
dotnet sonarscanner end /d:sonar.token="{token}"
```

Resultado de los comandos en consola

```
MINGW64/c:/Users/FLB/Desktop/awesome-compose/aspnet-mssql/app
INFO: ----- Run sensors on project
INFO: Sensor C# [csharp]
INFO: Importing results from 6 proto files in 'C:\Users\FLB\Desktop\awesome-compose\aspnet-mssql\app\sonarqube\output\0\output-cs'
INFO: Importing results from 6 proto files in 'C:\Users\FLB\Desktop\awesome-compose\aspnet-mssql\app\sonarqube\output\0.Razor\output-cs'
INFO: Importing 2 Roslyn reports
INFO: Found 1 MSBuild C# project: 1 MAIN project.
INFO: Sensor C# [csharp] (done) | time=290ms
INFO: Sensor Analysis Warnings import [csharp]
INFO: Sensor Analysis Warnings import [csharp] (done) | time=11ms
INFO: Sensor C# File Caching Sensor [csharp]
INFO: Sensor C# File Caching Sensor [csharp] (done) | time=3ms
INFO: Sensor Zero Coverage Sensor
INFO: Sensor Zero Coverage Sensor (done) | time=11ms
INFO: SCM Publisher SCM provider for this project is: git
INFO: SCM Publisher 17 source files to be analyzed
INFO: SCM Publisher 17/17 source files have been analyzed (done) | time=823ms
INFO: CPD Executor 6 files had no CPD blocks
INFO: CPD Executor Calculating CPD for 9 files
INFO: CPD Executor CPD calculation finished (done) | time=14ms
INFO: SCM revision ID '18f59bdb09ecf520dd5758fbf90dec314baec545'
INFO: Analysis report generated in 103ms, dir size=237.0 kB
INFO: Analysis report compressed in 99ms, zip size=50.1 kB
INFO: Analysis report uploaded in 78ms
INFO: ANALYSIS SUCCESSFUL, you can find the results at: http://localhost:9000/dashboard?id=awesome-compose
INFO: Note that you will be able to access the updated dashboard once the server has processed the submitted analysis report
INFO: More about the report processing at http://localhost:9000/api/ce/task?id=bf744fee-ac64-4d96-a1da-f1c9437e0e7c
INFO: Analysis total time: 2:06.172 s
INFO: -----
INFO: EXECUTION SUCCESS
INFO: -----
INFO: Total time: 2:08.665s
INFO: Final Memory: 15M/74M
INFO: -----
The SonarScanner CLI has finished
11:35:27.124 Post-processing succeeded.
```

- Resultado de Analisis exitoso



awesome-compose / aspNet-masg

Overview Issues Security Hotspots Measures Code Activity Project Settings Project Information

My Issues All

Filters

Issues in new code

Clean Code Attribute

Consistency 10

Intentionality 5

Adaptability 1

Responsibility 0

Software Quality

Security 0

Reliability 8

Maintainability 11

Severity

Type

Scope

Bulk Change

Select Issues Navigate to Issue 16 issues 1h 22min effort

aspnetapp/Dockerfile

Replace 'as' with upper case format 'AS'.

Maintainability

Open Not assigned

L2 - 5min effort - 3 years ago - @ Code Smell - @ Major

aspnetapp/Program.cs

Add a 'protected' constructor or the 'static' keyword to the class declaration.

Maintainability

Open Not assigned

L8 - 10min effort - 3 years ago - @ Code Smell - @ Major

Move 'Program' into a named namespace.

Reliability

Open Not assigned

L8 - 5min effort - 3 years ago - @ Bug - @ Major

aspnetapp/Views/Home/Index.cshtml

Use <data-list> or <select> instead of the listbox role to ensure accessibility across all devices.

Maintainability

Open Not assigned

L11 - 5min effort - 4 years ago - @ Code Smell - @ Major

- Resultado de Analisis Fallido

Overview Issues Security Hotspots Measures Code Activity Project Settings Project Information

main 1k Lines of Code - Version 1.0.0-SNAPSHOT - Set as homepage Take the Tour

Quality Gate **Failed** Last analysis 8 minutes ago

The last analysis has warnings. See details

New Code 1 failed Overall Code

New Code: Since August 27, 2024 Started 8 days ago

1 condition failed

1.1k Issues

Fix issues before they fail your Quality Gate with SonarLint in your IDE. Power up with connected model

New issues FAILED 1.1k Required = 0

Accepted issues 0 Valid issues that were not fixed

Coverage 100% Required = 80.0% On 895 New Lines to cover.

Duplications 0.0% Required = 3.0% On 895 New Lines.

Security Hotspots 0 A

Compilar la aplicación

docker compose up -d

```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/awesome-compose/aspnet-mssql (master)
$ docker compose up -d
#13 4.105 Build succeeded.
#13 4.105 0 Warning(s)
#13 4.105 0 Error(s)
#13 4.105
#13 4.105 Time Elapsed 00:00:03.35
#13 DONE 4.2s

#14 [web publish 1/1] RUN dotnet publish "aspnetapp.csproj" -c Release -o /app/publish
#14 0.668 Microsoft (R) Build Engine version 16.11.2+f32259642 for .NET
#14 0.668 Copyright (C) Microsoft Corporation. All rights reserved.
#14 0.668
#14 1.014 Determining projects to restore...
#14 1.199 All projects are up-to-date for restore.
#14 1.665 aspnetapp -> /src/bin/Release/net5.0/aspnetapp.dll
#14 1.669 aspnetapp -> /src/bin/Release/net5.0/aspnetapp.Views.dll
#14 1.787 aspnetapp -> /app/publish/
#14 DONE 1.8s

#15 [web final 2/2] COPY --from=publish /app/publish .
#15 DONE 0.1s

#16 [web] exporting to image
#16 exporting layers 0.1s done
#16 writing image sha256:05ec8f02090d6aa247c1fd6c87bb17c3fd3707f3095a0ba2418ba502c921a4e6 done
#16 naming to docker.io/library/aspnet-mssql-web done
#16 DONE 0.1s

#17 [web] resolving provenance for metadata file
#17 DONE 0.0s
Network aspnet-mssql_default Creating
Network aspnet-mssql_default Created
Container aspnet-mssql-db-1 Creating
Container aspnet-mssql-web-1 Creating
Container aspnet-mssql-web-1 Created
Container aspnet-mssql-db-1 Created
Container aspnet-mssql-db-1 Starting
Container aspnet-mssql-web-1 Starting
Container aspnet-mssql-db-1 Started
Container aspnet-mssql-web-1 Started
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/awesome-compose/aspnet-mssql (master)
$
```

Docker ps

```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/awesome-compose/aspnet-mssql (master)
$ docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS              PORTS
7c70b7342183   mcr.microsoft.com/azure-sql-edge:1.0.4 "/opt/mssql/bin/perm_  48 seconds ago Up 47 seconds (healthy) 14
01/tcp, 1433/tcp   aspnet-mssql-db-1          "dotnet aspnetapp.dll"  48 seconds ago Up 47 seconds         0.
99cfc1f315a3   aspnet-mssql-web           "dotnet aspnetapp.dll"  48 seconds ago Up 47 seconds         0.
0.0.0:80->80/tcp   aspnet-mssql-web-1         "/opt/sonarqube/dock_  8 days ago    Up 31 minutes       0.
614bdefffc1b   sonarqube:latest           "/opt/sonarqube/dock_  8 days ago    Up 31 minutes       0.
0.0.0:9000->9000/tcp   sonarqube
```

La aplicación está en el puerto <http://localhost:80>.

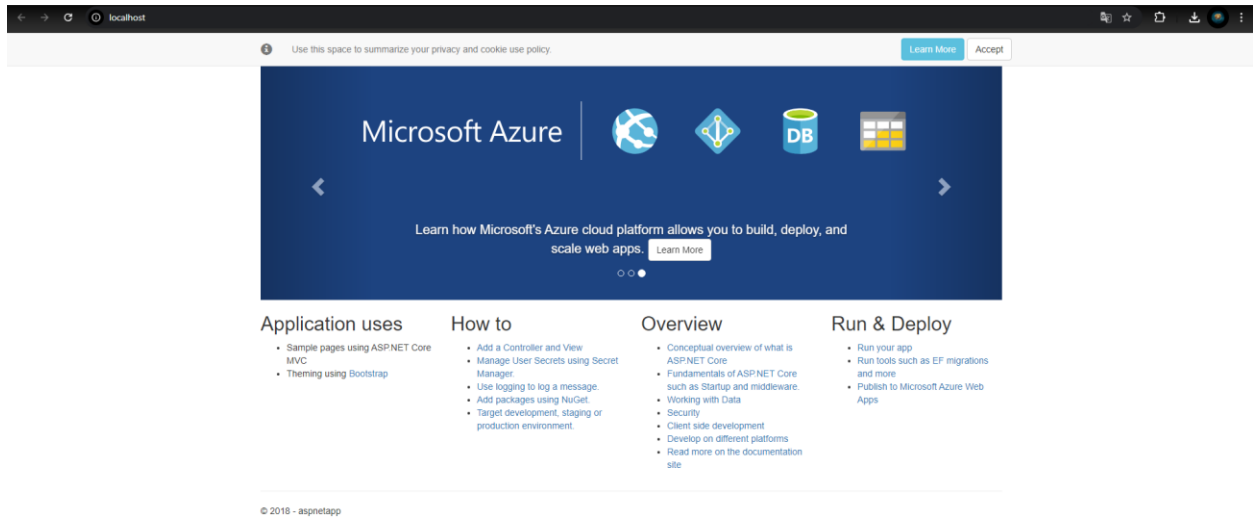
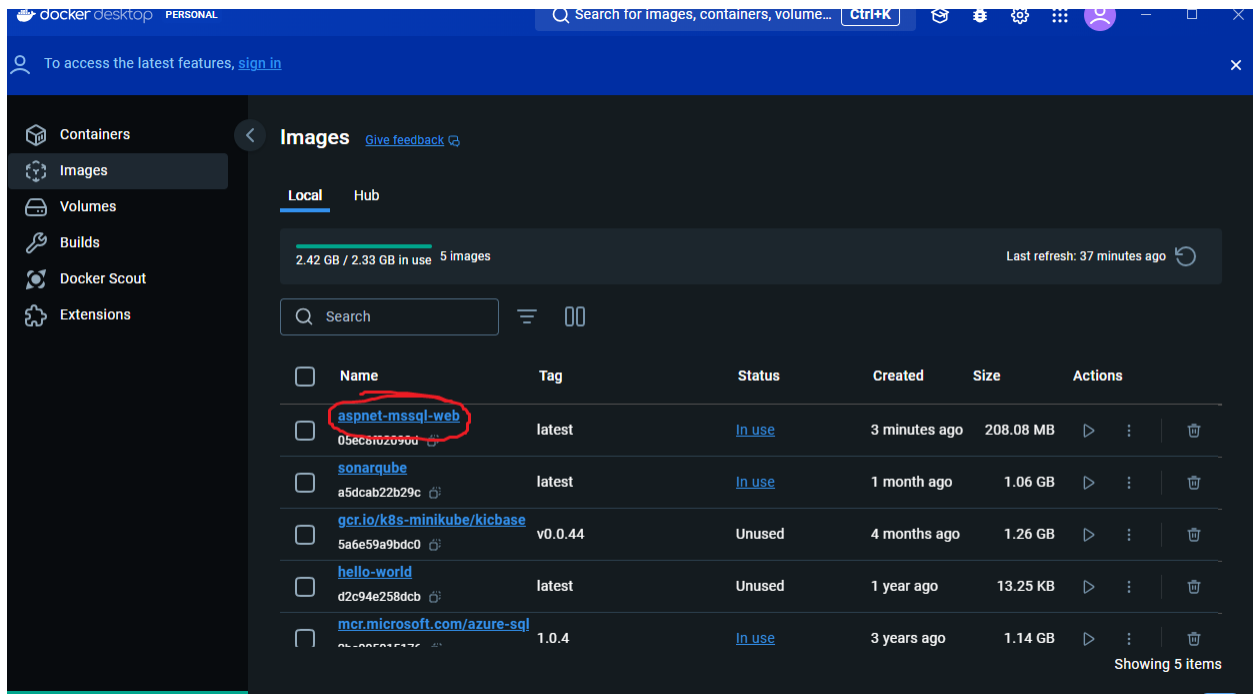


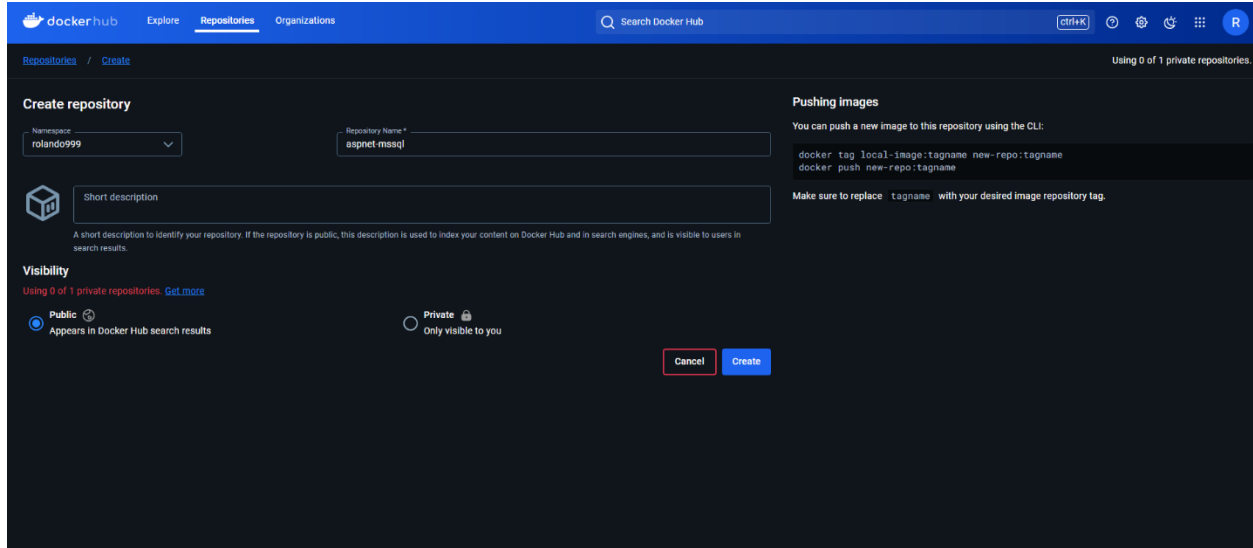
Imagen Docker



Subir la imagen a dockerhub/ACR/ECR desde el pipeline yaml.

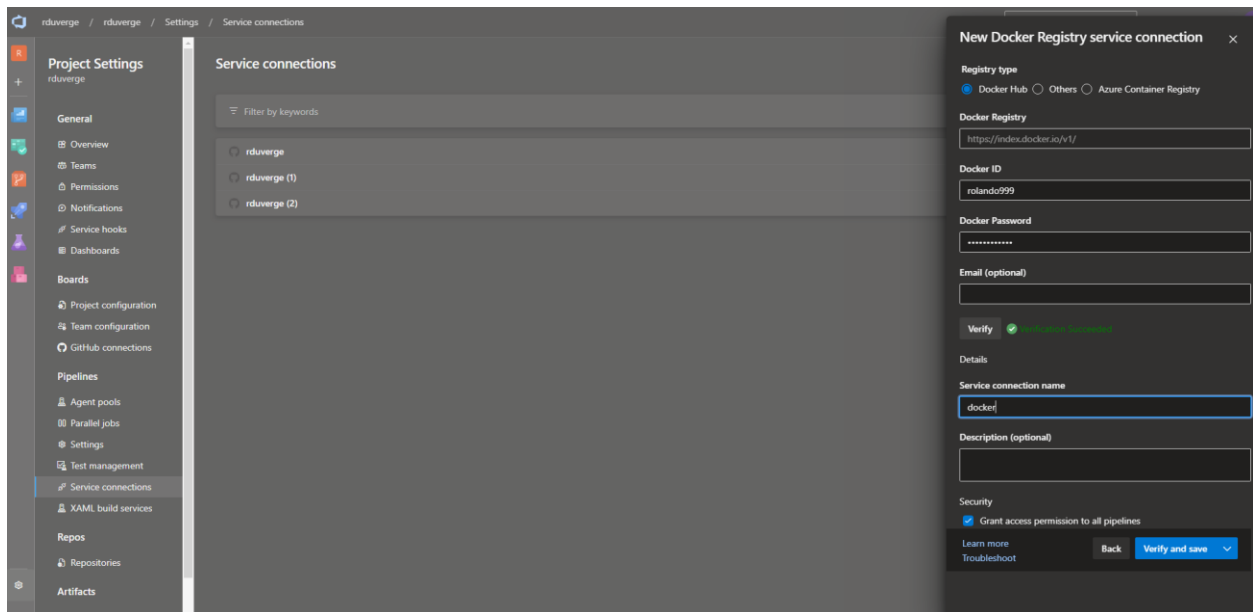
Creo una cuenta en Docker hub

Creo el repositorio



The screenshot shows the Docker Hub 'Create repository' page. The 'Namespace' is set to 'rolando999' and the 'Repository Name' is 'aspnet-mssql'. The 'Short description' field is empty. The 'Visibility' section shows 'Public' selected, with a note 'Using 0 of 1 private repositories. Get more'. The 'Pushing images' section provides CLI commands: `docker tag local-image:tagname new-repo:tagname` and `docker push new-repo:tagname`. A warning states: 'Make sure to replace tagname with your desired image repository tag.' The page has 'Cancel' and 'Create' buttons at the bottom right.

Registro la conexión con Docker hub desde azure



The screenshot shows the 'New Docker Registry service connection' dialog in Azure DevOps. The 'Registry type' is 'Docker Hub'. The 'Docker Registry' URL is 'https://index.docker.io/v1/'. The 'Docker ID' is 'rolando999'. The 'Docker Password' is masked with dots. The 'Email (optional)' field is empty. The 'Verify' button is green and says 'Verify successful!'. The 'Details' section has 'Service connection name' set to 'docker'. The 'Description (optional)' field is empty. The 'Security' section has 'Grant access permission to all pipelines' checked. The 'Verify and save' button is blue and active.

1. Pipeline que genera la imagen de Docker y la sube a Docker Hub. También dentro del Dentro del pipeline se ejecuta lo siguiente en bash .

a. Imprime Hola Mundo 10 veces en pantalla con un job paralelo.

b. Script que cree 10 archivos con la fecha y luego lo imprima en consola

```
main  rduverge/aspnet-mssql / azure-pipelines.yml *
```

```
1  # Docker
2  # Build a Docker image
3  # https://docs.microsoft.com/azure/devops/pipelines/languages/docker
4
5  trigger:
6  - main
7
8  resources:
9  - repo: self
10
11  variables:
12  - tag: '${Build.BuildId}'
13
14  stages:
15  - stage: BuildAndPush
16    displayName: Build image
17    jobs:
18    - job: BuildAndPushDockerImage
19      displayName: 'Build and Push Docker Image'
20      pool:
21      vmImage: ubuntu-latest
22      steps:
23      - task: Docker@2
24        inputs:
25          containerRegistry: 'docker'
26          repository: 'rolando999/aspnet-mssql'
27          command: 'buildAndPush'
28          Dockerfile: '**/Dockerfile'
29
30  - stage: ScriptBaschPrint
31    displayName: ScriptBasch
32    jobs:
33    - job: ScriptBasch
34      displayName: 'Script Basch write Hello Word'
35      steps:
36      - script: |
37          for i in {1..10}
38          do
39            echo 'Hello world'
40          done
41      displayName: 'Print Hello World 10 times'
42
43    - job: ScriptBaschFiles
44      displayName: 'Script Basch Create and Print Files'
45      steps:
46      - script: |
47          for i in {1..10}
48          do
49            filename="file_$(date +%Y%m%d%H%M%S).txt"
50            date > $filename
51          done
52      cat $filename
```

Resultado ejecución del Pipeline (se adjuntan los logs en el repositorio (logs_15.zip))

#20240904.9 • Update azure-pipelines.yml for Azure Pipelines


Run new

This run is being retained as one of 3 recent runs by pipeline.

View retention leases


Summary



Code Coverage

Manually run by  Rolando Duverge


View change


Repository and version

 rduverge/aspnet-mssql


 main  a8bcd73b


Time started and elapsed

 Today at 15:29


 3m 1s

Related


 0 work items

 0 artifacts

Tests and coverage

 Get started


Warnings 1

 No data was written into the file /home/vsts/work/_temp/task_outputs/build_1725478252179.txt

Build image • Build and Push Docker Image • Docker


Stages

Jobs

 Build image

1 job completed

41s

 ScriptBasch

2 jobs completed

54s

←

Jobs in run #20240904.9

rduverge.aspnet-mssql

Build image

>

✓

Build and Push Docker I...

34s

ScriptBasch

▼

✓

Script Bash write Hello W...

3s

✓

Initialize job

1s

✓

Checkout rduverge/asp...

1s

✓

Print Hello World 10 ti...

<1s

✓

Post-job: Checkout rd...

<1s

✓

Finalize Job

<1s

▼

✓

Script Bash Create and Pr...

5s

✓

Initialize job

2s

✓

Checkout rduverge/asp...

2s

✓

CmdLine

<1s

✓

Post-job: Checkout rd...

<1s

✓

Finalize Job

<1s

✓

Print Hello World 10 times

```

1 Starting: Print Hello World 10 times
2 -----
3 Task : Command line
4 Description : Run a command line script using Bash on Linux and macOS and cmd.exe on Windows
5 Version : 2.244.3
6 Author : Microsoft Corporation
7 Help : https://docs.microsoft.com/azure/devops/pipelines/tasks/utility/command-line
8 -----
9 Generating script.
10 ----- Starting Command Output -----
11 /usr/bin/bash --noprofile --norc /home/vsts/work/_temp/65720a78-2cd4-45f4-a811-03c5c1c8bb77.sh
12 Hello world
13 Hello world
14 Hello world
15 Hello world
16 Hello world
17 Hello world
18 Hello world
19 Hello world
20 Hello world
21 Hello world
22
23 Finishing: Print Hello World 10 times

```

Stages Jobs			
Name	Status	Stage	Duration
✓ Build and Push Docker Image	Success	Build image	🕒 34s
✓ Script Basch write Hello Word	Success	ScriptBasch	🕒 3s
✓ Script Basch Create and Print Files	Success	ScriptBasch	🕒 5s

Script que crea 10 archivos con la fecha y la imprime en consola

← Jobs in run #20240904.9

rduverge.aspnet-mssql

Build image

> ✓ Build and Push Docker I... 34s

ScriptBasch

✓ Script Basch write Hello W... 3s

Initialize job 1s

Checkout rduverge/asp... 1s

Print Hello World 10 ti... <1s

Post-job: Checkout rd... <1s

Finalize Job <1s

✓ Script Basch Create and Pr... 5s

Initialize job 2s

Checkout rduverge/asp... 2s

CmdLine <1s

Post-job: Checkout rd... <1s

Finalize Job <1s

✓ CmdLine

1 Starting: CmdLine

2 =====

3 Task : Command line

4 Description : Run a command line script using Bash on Linux and macOS and cmd.exe on Windows

5 Version : 2.244.3

6 Author : Microsoft Corporation

7 Help : <https://docs.microsoft.com/azure/devops/pipelines/tasks/utility/command-line>

8 =====

9 Generating script.

10 ===== Starting Command Output =====


11 /usr/bin/bash --noprofile --norc /home/vsts/work/_temp/a5ee3d42-f730-425d-a947-547f13e6acf5.sh

12 Wed Sep 4 19:33:10 UTC 2024

13

14 Finishing: CmdLine

Imagen en docker hub



rolando999/aspnet-mssql:7

MANIFEST DIGEST sha256:e387abcdbebc5e8d58001a84c96a637b2ea65d2ea4f5fa86184eec7383afc178

OS/ARCH

linux/amd64

COMPRESSED SIZE

81.43 MB

LAST PUSHED

2 hours ago by [rolando999](#)

TYPE

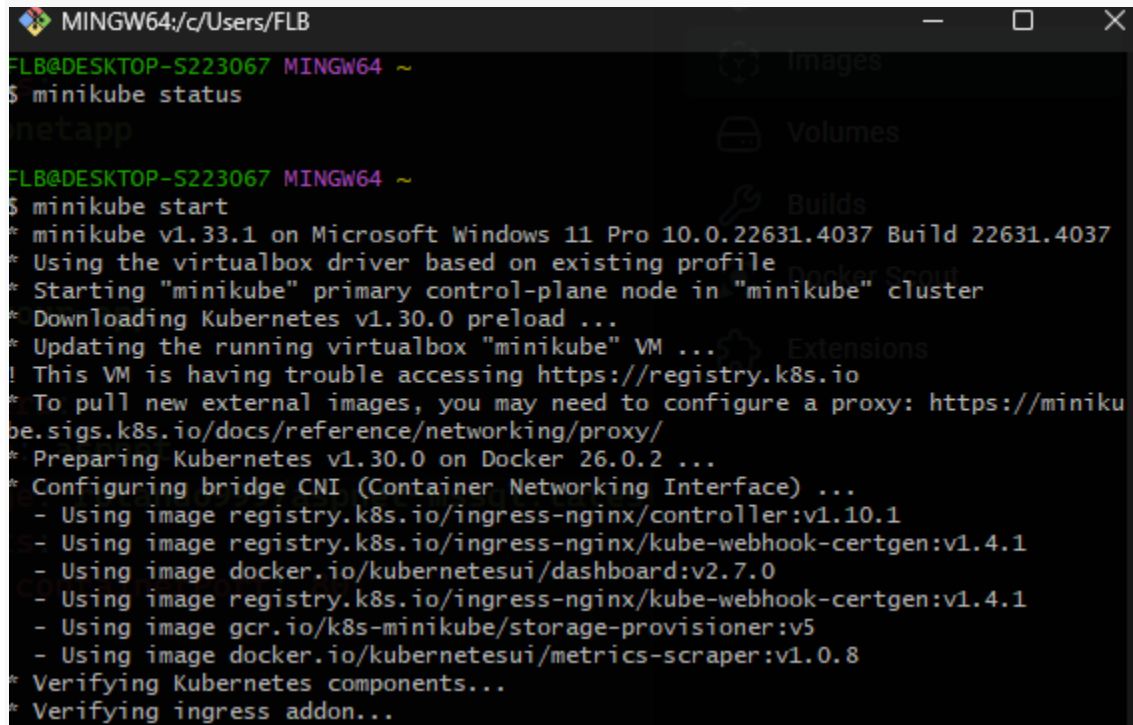
Image

MANIFEST DIGEST

sha256:e387abcd...

1. Despliega la app a un clúster de kubernetes en este caso minikube con el driver de VirtualBox

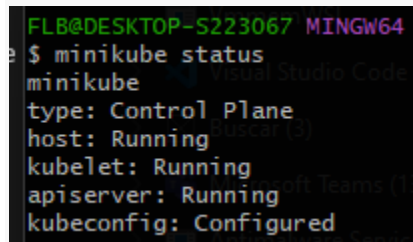
```
minikube start
```



```
MINGW64:/c/Users/FLB
FLB@DESKTOP-S223067 MINGW64 ~
$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured

FLB@DESKTOP-S223067 MINGW64 ~
$ minikube start
* minikube v1.33.1 on Microsoft Windows 11 Pro 10.0.22631.4037 Build 22631.4037
* Using the virtualbox driver based on existing profile
* Starting "minikube" primary control-plane node in "minikube" cluster
* Downloading Kubernetes v1.30.0 preload ...
* Updating the running virtualbox "minikube" VM ...
! This VM is having trouble accessing https://registry.k8s.io
! To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
* Preparing Kubernetes v1.30.0 on Docker 26.0.2 ...
* Configuring bridge CNI (Container Networking Interface) ...
  - Using image registry.k8s.io/ingress-nginx/controller:v1.10.1
  - Using image registry.k8s.io/ingress-nginx/kube-webhook-certgen:v1.4.1
  - Using image docker.io/kubernetesui/dashboard:v2.7.0
  - Using image registry.k8s.io/ingress-nginx/kube-webhook-certgen:v1.4.1
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
  - Using image docker.io/kubernetesui/metrics-scraper:v1.0.8
* Verifying Kubernetes components...
* Verifying ingress addon...
```

```
minikube status
```



```
FLB@DESKTOP-S223067 MINGW64 ~
$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

Creo el yaml del Deployment y ejecuto.

```
Y service-config-file.yaml U      Y deployment-config-file.yaml U X
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: aspnetapp-pod
5  spec:
6    replicas: 1
7    selector:
8      matchLabels:
9        app: aspnetapp
10   template:
11     metadata:
12       labels:
13         app: aspnetapp
14     spec:
15       containers:
16         - name: aspnet
17           image: rolando999/aspnet-mssql:latest
18           ports:
19             - containerPort: 80
20
```

kubectl apply -f deployment-config-file.yaml

```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
$ kubectl apply -f deployment-config-file.yaml
deployment.apps/aspnetapp-pod created
```

```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
$ kubectl get pods
NAME                                READY   STATUS             RESTARTS   AGE
aspnetapp-pod-7c996c6cd6-f99cw      0/1     ContainerCreating   0           10s
```

```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
aspnetapp-pod-7c996c6cd6-jthdg      1/1     Running   0           34s
```

Creo el Yaml del Service y ejecuto.

```
service-config-file.yaml U X
1  apiVersion: apps/v1
2  kind: Service
3  metadata:
4    name: aspnetapp-service-pod
5  spec:
6    type: NodePort
7    selector:
8      app: aspnetapp
9    ports:
10     - port: 80
11       targetPort: 80
12       NodePort: 30000
13
```

\$ kubectl apply -f service-config-file.yaml

```
$ kubectl apply -f service-config-file.yaml
service/aspnetapp-service-pod created
```

Kubectl describe deployment aspNetapp-pod

Kubectl get services

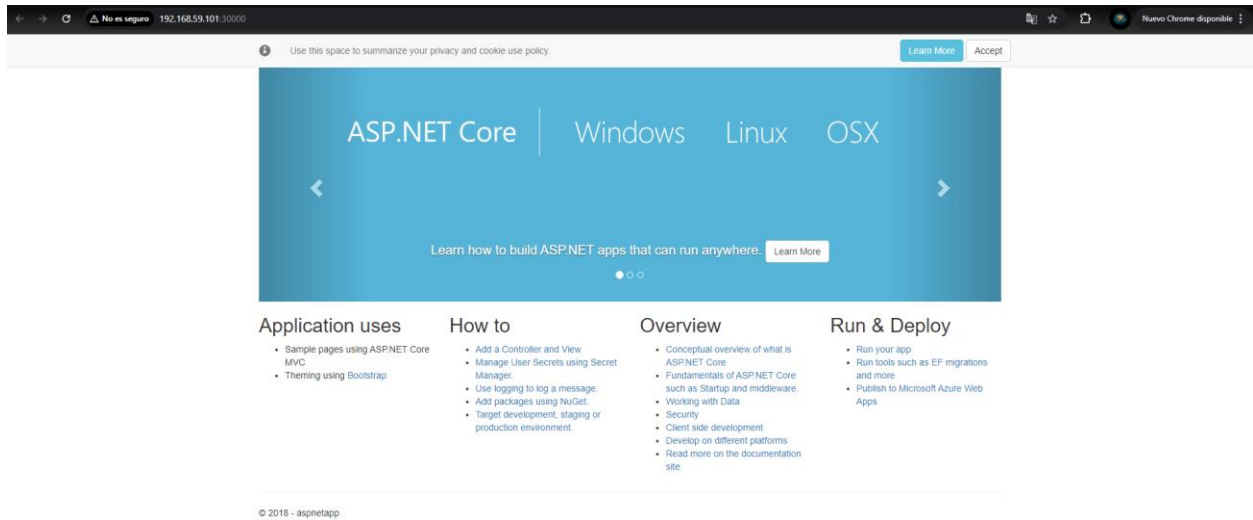
```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
$ kubectl describe deployment aspNetapp-pod
Name:          aspNetapp-pod
Namespace:     default
CreationTimestamp: Wed, 04 Sep 2024 20:40:29 -0400
Labels:        <none>
Annotations:   deployment.kubernetes.io/revision: 1
Selector:      app=aspnetapp
Replicas:      1 desired | 1 updated | 1 total | 1 available | 0 unavailable
StrategyType:  RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels:  app=aspnetapp
  Containers:
    aspnet:
      Image:      rolando999/aspnet-mssql:18
      Port:       80/TCP
      Host Port:  0/TCP
      Environment: <none>
      Mounts:      <none>
  Volumes: <none>
  Node-Selectors: <none>
  Tolerations: <none>
Conditions:
  Type           Status  Reason
  ----           -
  Available      True    MinimumReplicasAvailable
  Progressing    True    NewReplicaSetAvailable
OldReplicaSets: <none>
NewReplicaSet:  aspNetapp-pod-7c996c6cd6 (1/1 replicas created)
Events:
  Type    Reason             Age   From                  Message
  ----    -
  Normal  ScalingReplicaSet  75s   deployment-controller Scaled up replica set aspNetapp-pod-7c996c6cd6 to

FLB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
$ kubectl get services
NAME                                TYPE        CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
aspnetapp-service-pod              NodePort    10.104.107.122  <none>            80:30000/TCP     17m
kubernetes                          ClusterIP    10.96.0.1       <none>            443/TCP          4h17m
```

Para ver la URL del servicio

```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
$ minikube service aspNetapp-service-pod
|-----|-----|-----|-----|
| NAMESPACE | NAME           | TARGET PORT | URL              |
|-----|-----|-----|-----|
| default   | aspNetapp-service-pod | 80          | http://192.168.59.101:30000 |
|-----|-----|-----|-----|
* Opening service default/aspnetapp-service-pod in default browser...
```

App desplegada en Kubernetes



Crea un endpoint externo accesible (ingress) para la aplicación

Habilito el ingress con

minikube addons enable ingress

```
LB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
minikube addons enable ingress
ingress is an addon maintained by Kubernetes. For any concerns contact minikube on GitHub.
you can view the list of minikube maintainers at: https://github.com/kubernetes/minikube/blob/master/OWNER
- Using image registry.k8s.io/ingress-nginx/controller:v1.10.1
- Using image registry.k8s.io/ingress-nginx/kube-webhook-certgen:v1.4.1
- Using image registry.k8s.io/ingress-nginx/kube-webhook-certgen:v1.4.1
Verifying ingress addon...
The 'ingress' addon is enabled
```


Creo el yaml con la configuracion del ingress y lo aplico

```
1  apiVersion: networking.k8s.io/v1
2  kind: Ingress
3  metadata:
4    name: aspnetapp-ingress
5    annotations:
6      nginx.ingress.kubernetes.io/rewrite-target: /
7  spec:
8    rules:
9      - host: aspnetapp.local
10      http:
11        paths:
12          - path: /
13            pathType: Prefix
14            backend:
15              service:
16                name: aspnetapp-service-pod
17                port:
18                  number: 80
```

```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
$ kubectl apply -f ingress-config-file.yaml
ingress.networking.k8s.io/aspnetapp-ingress created
```

```
FLB@DESKTOP-S223067 MINGW64 ~/Desktop/aspnet-mssql (main)
$ kubectl get ingress
NAME                CLASS    HOSTS                ADDRESS          PORTS    AGE
aspnetapp-ingress   nginx    aspnetapp.local      192.168.59.101  80       44s
```

Enlace Git repositorio

<https://github.com/rduverge/aspnet-mssql.git>