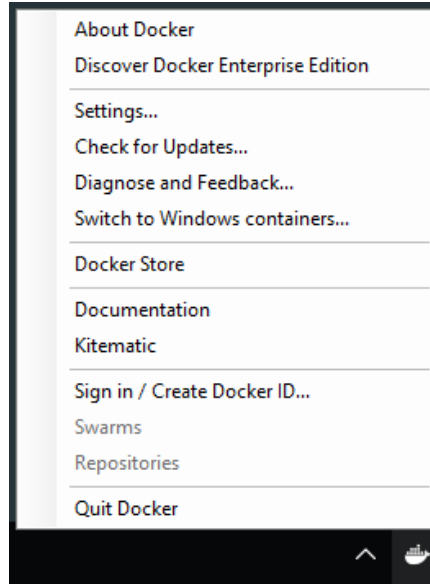
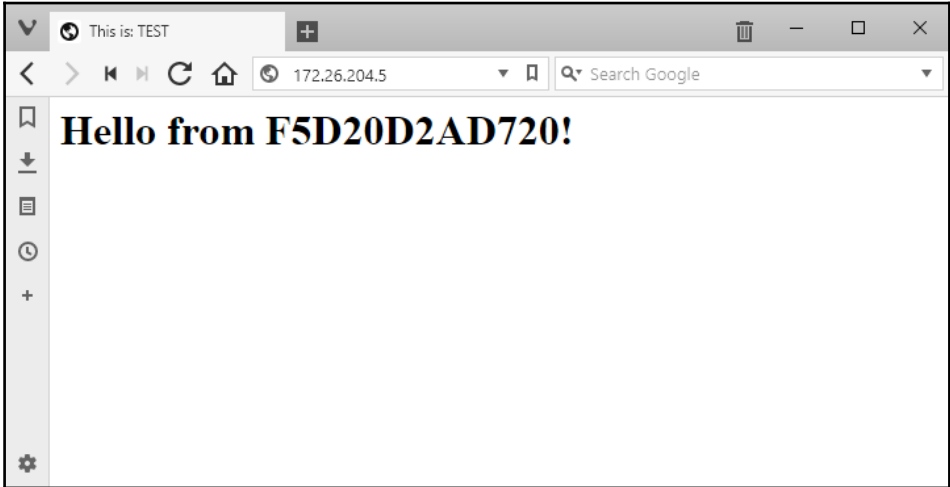
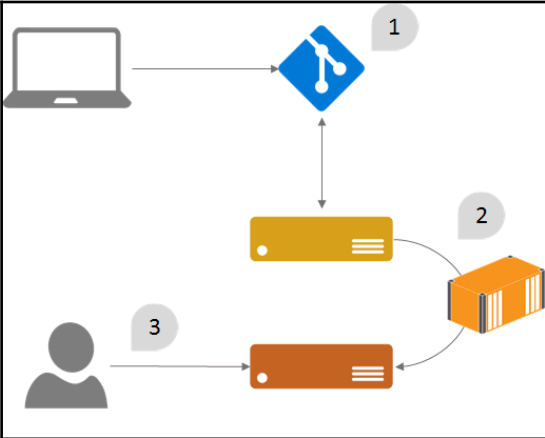
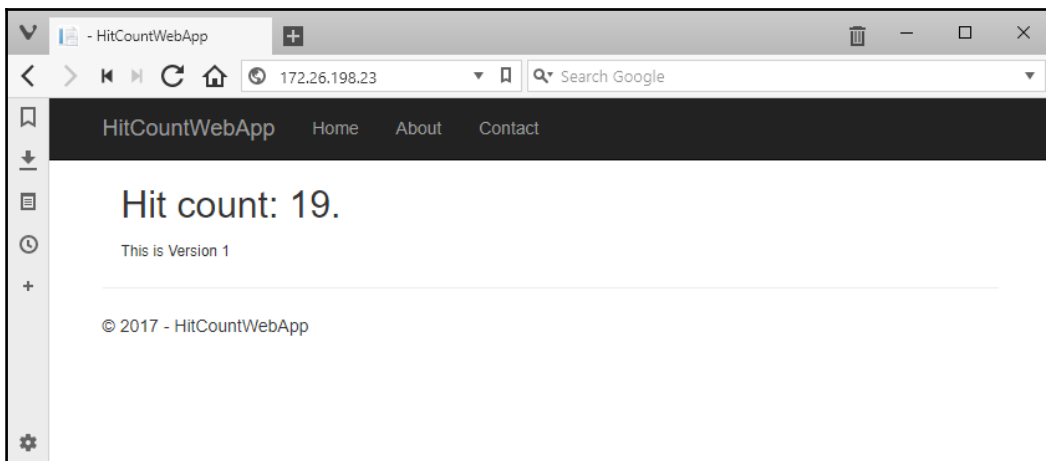
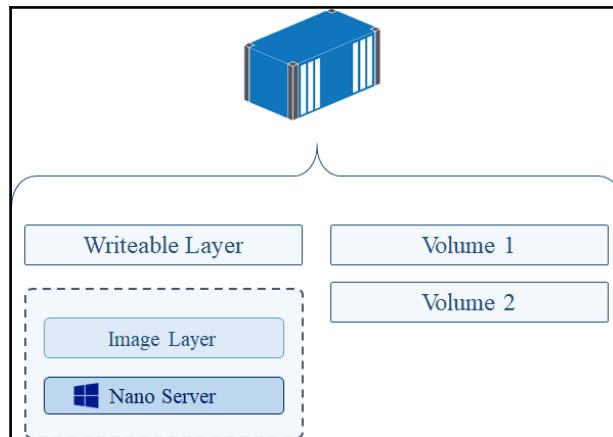
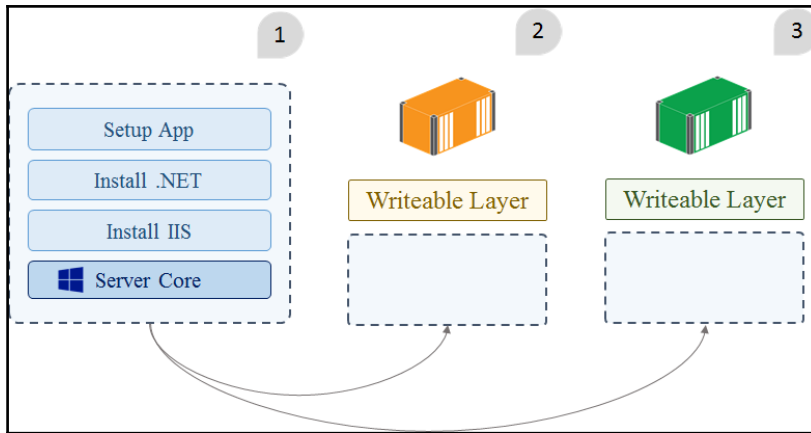


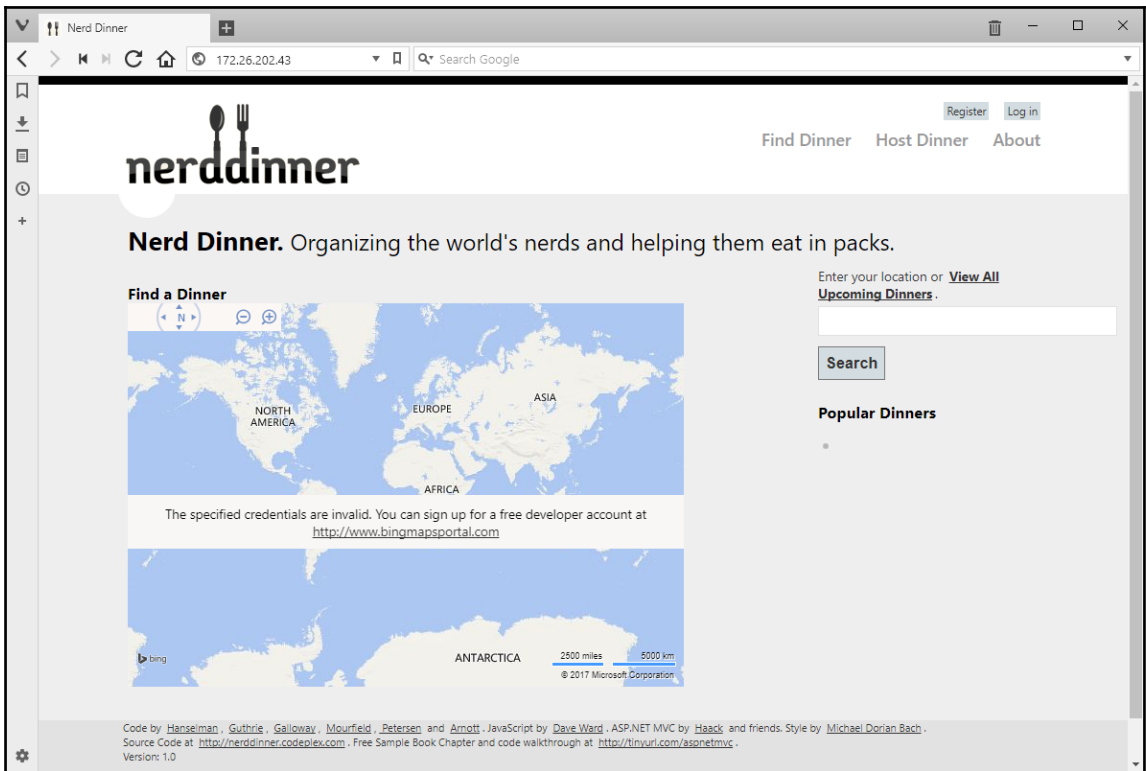
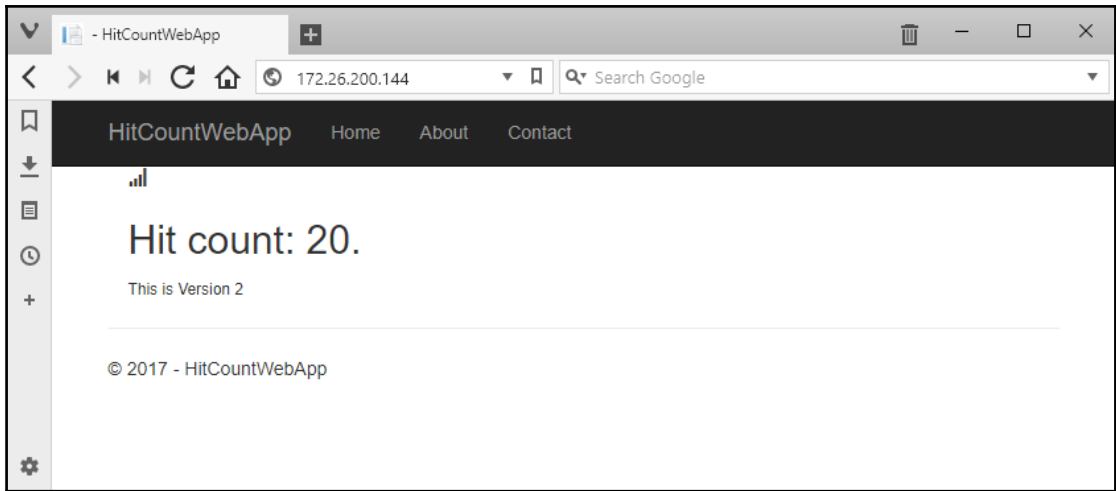
Chapter 01: Getting Started with Docker on Windows



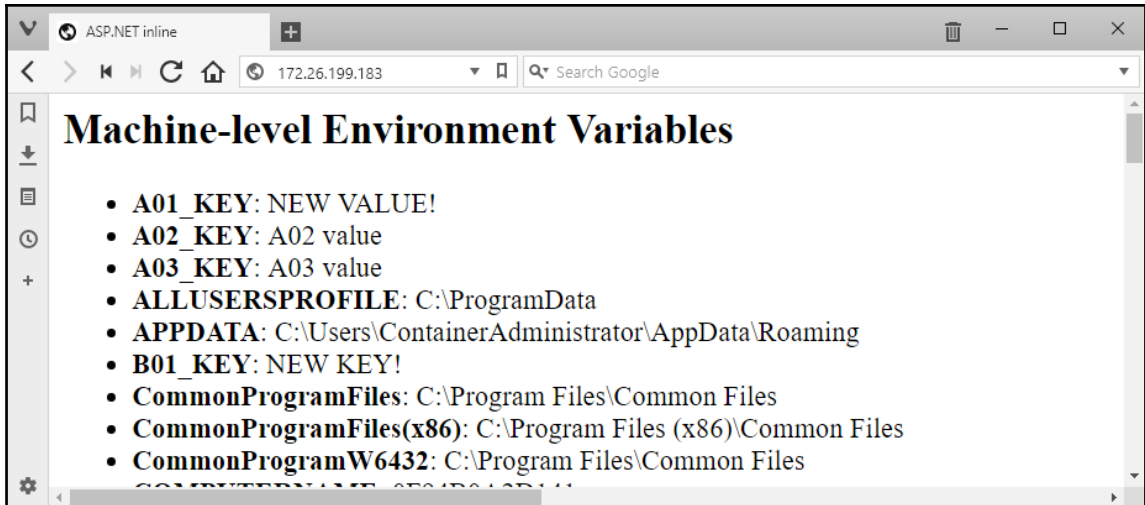
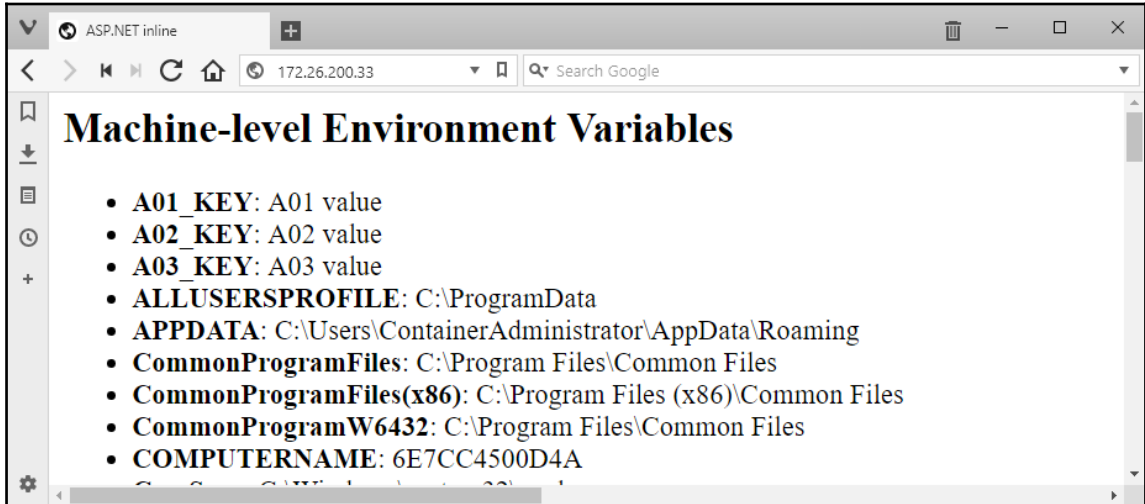
Chapter 02: Packaging and Running Applications as Docker Containers







Chapter 03: Developing Dockerized .NET and .NET Core Applications



Add Connection ? X

Enter information to connect to the selected data source or click "Change" to choose a different data source and/or provider.

Data source: Microsoft SQL Server (SqlClient) Change...

Server name: 172.31.127.91 Refresh

Log on to the server

Authentication: SQL Server Authentication

User name: sa

Password: ●●●●●●●● Save my password

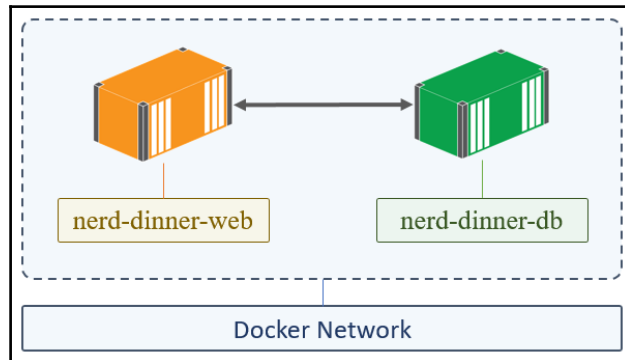
Connect to a database

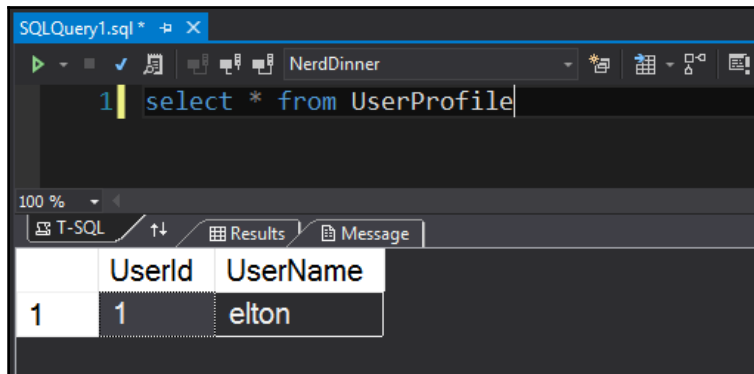
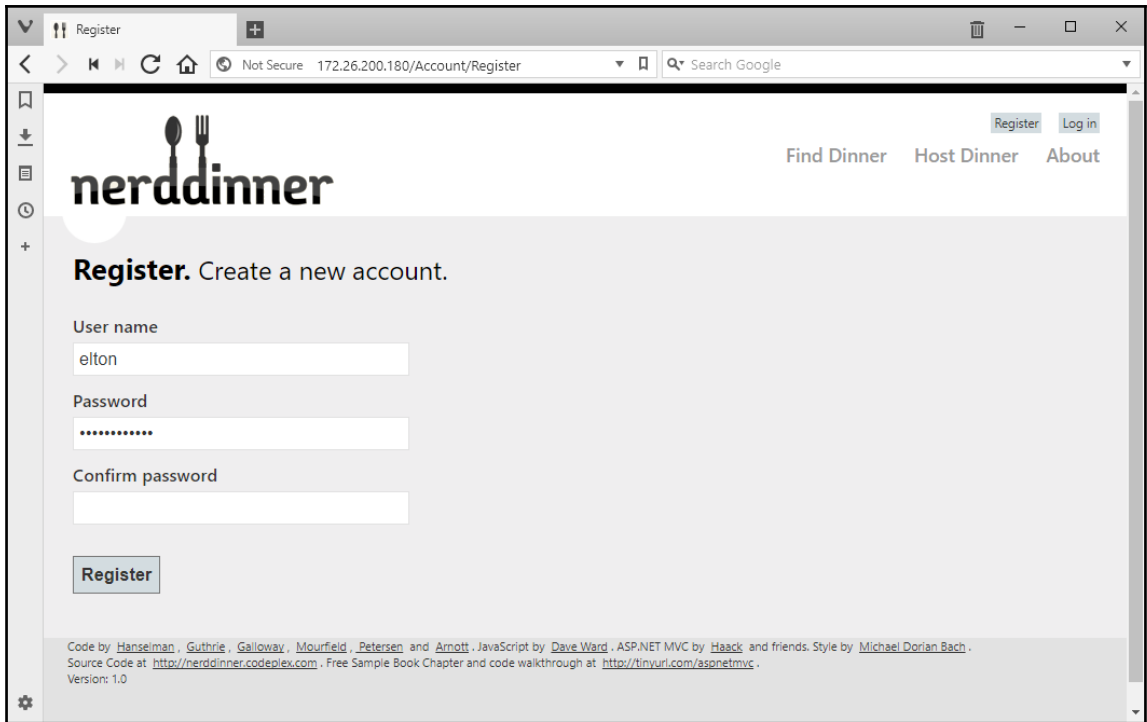
Select or enter a database name:

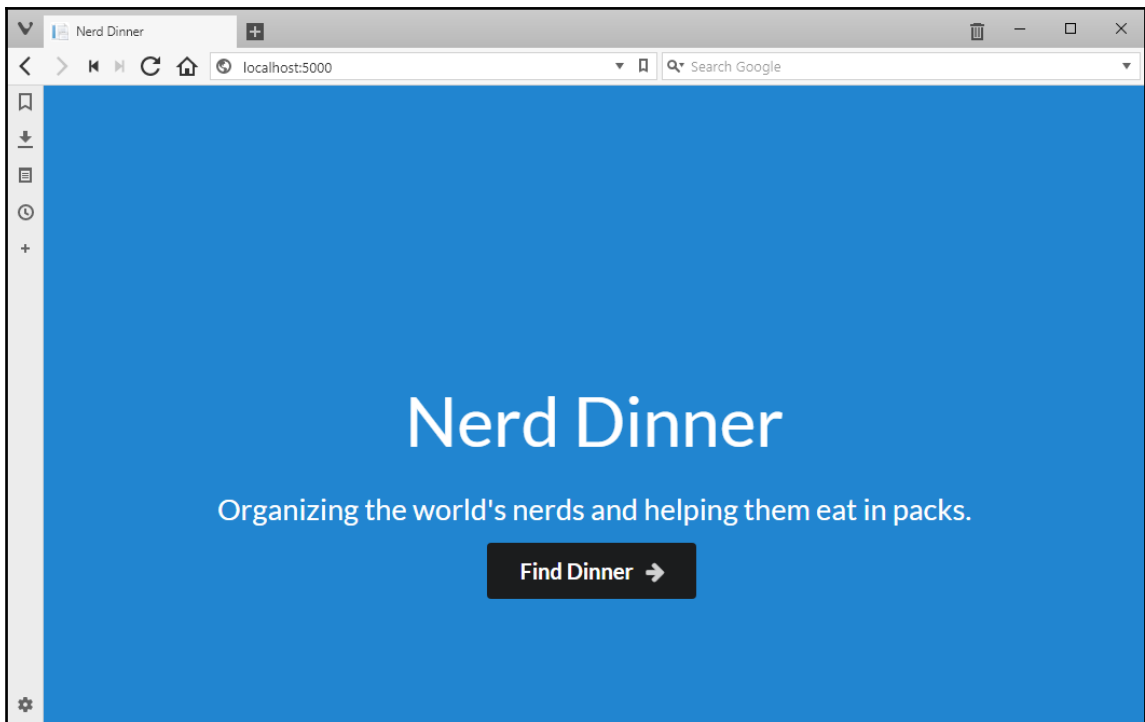
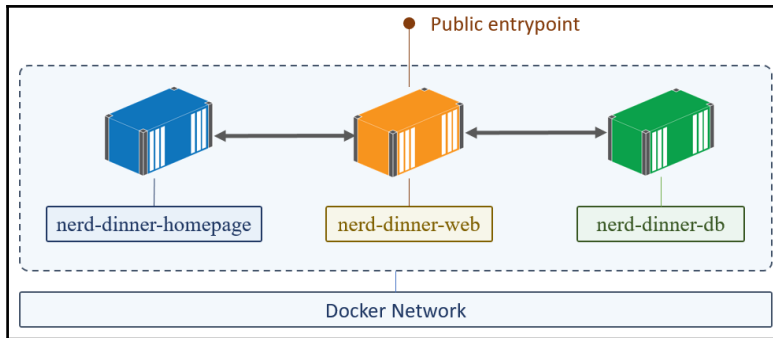
- master
- model
- msdb
- NerdDinner
- tempdb

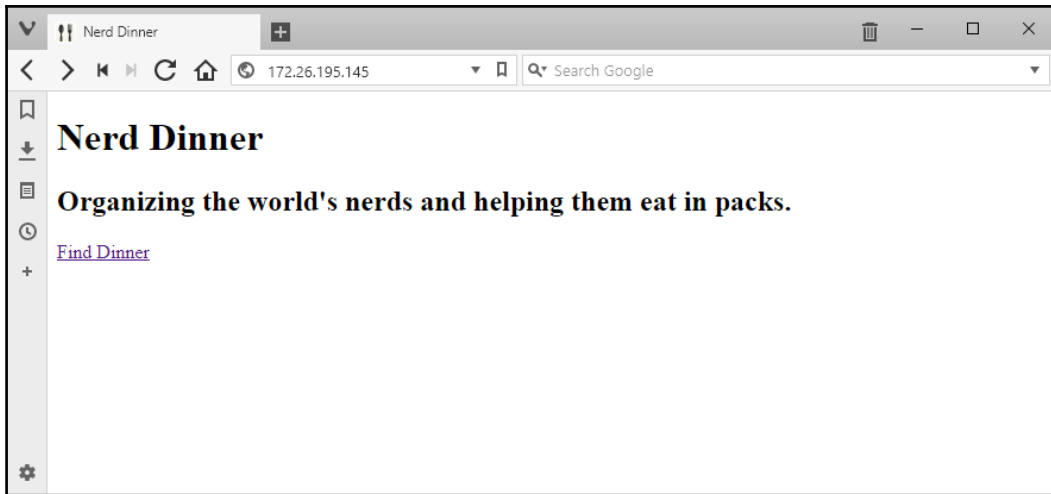
Advanced...

Test Connection OK Cancel

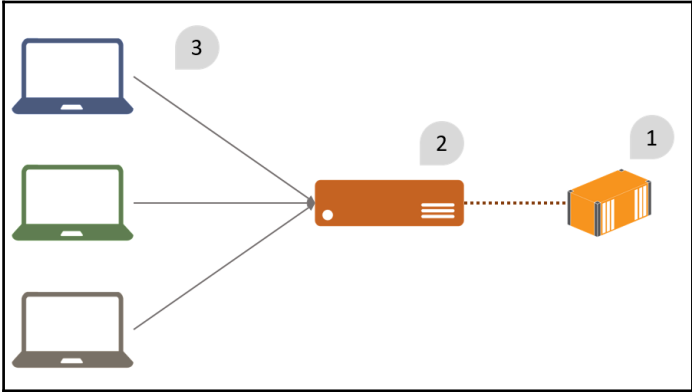








Chapter 04: Pushing and Pulling Images from Docker Registries



Settings

- General
- Proxies
- Daemon
- Diagnose & Feedback
- Reset

Daemon

Configure the Docker daemon by typing a [json docker daemon configuration file](#).

Basic

Experimental [features](#)

Insecure registries:

registry.local:5000
eg: mysite.com:88

Registry mirrors:

eg: mysite.com:88

Docker is running

Docker will restart when applying these settings.

Apply

Settings

General

Proxies

Daemon

Diagnose & Feedback

Reset

Daemon

Configure the Docker daemon by typing a json docker daemon [configuration file](#).

Advanced


This can prevent Docker from starting. Use at your own risk!

```
{
  "insecure-registries": [
    "registry.local:5000"
  ],
  "allow-nondistributable-artifacts": [
    "registry.local:5000"
  ]
}
```

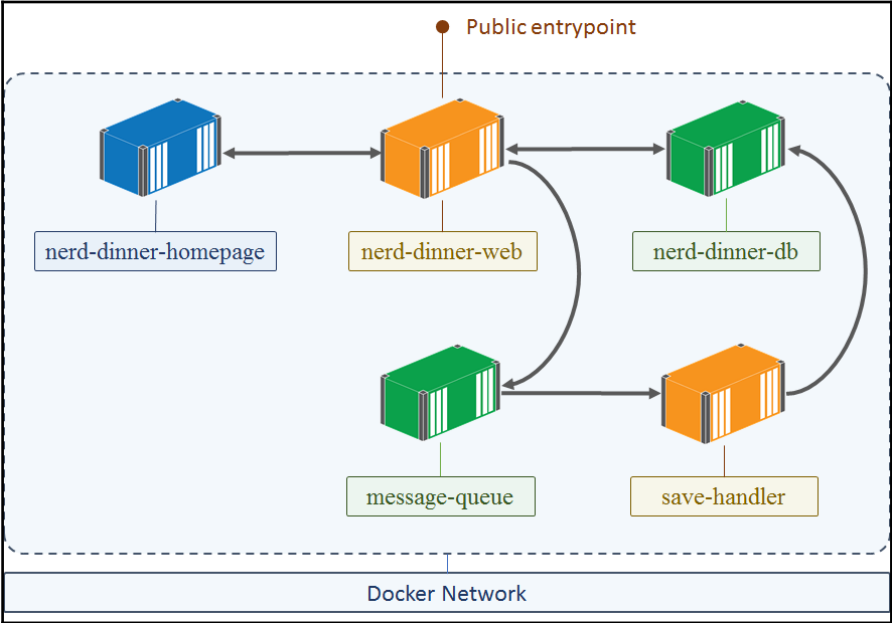
Docker is running

Docker will restart when applying these settings.

Apply



Chapter 05: Adopting Container-First Solution Design



Host a Nerd Dinner

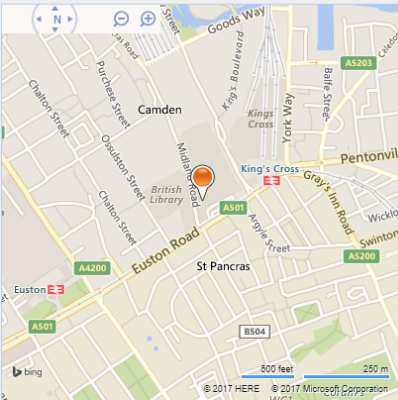
172.26.192.214/Dinners/Create

nerddinner

Hello, [elton!](#) [Log off](#)

[Find Dinner](#) [Host Dinner](#) [About](#)

Host a Dinner



(drag the pin in the map if it doesn't look right) *

[Back to List](#)

Title

Event Date

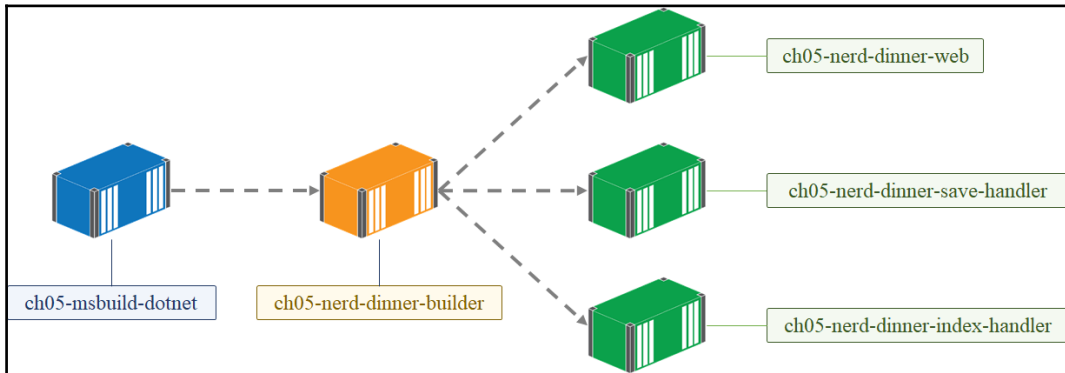
Description

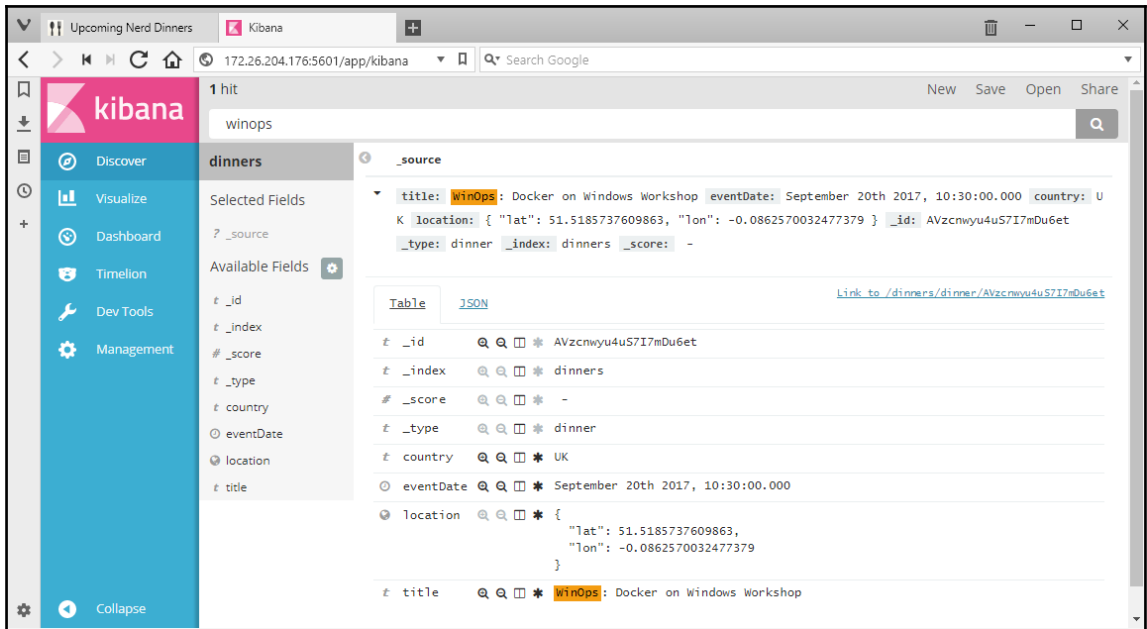
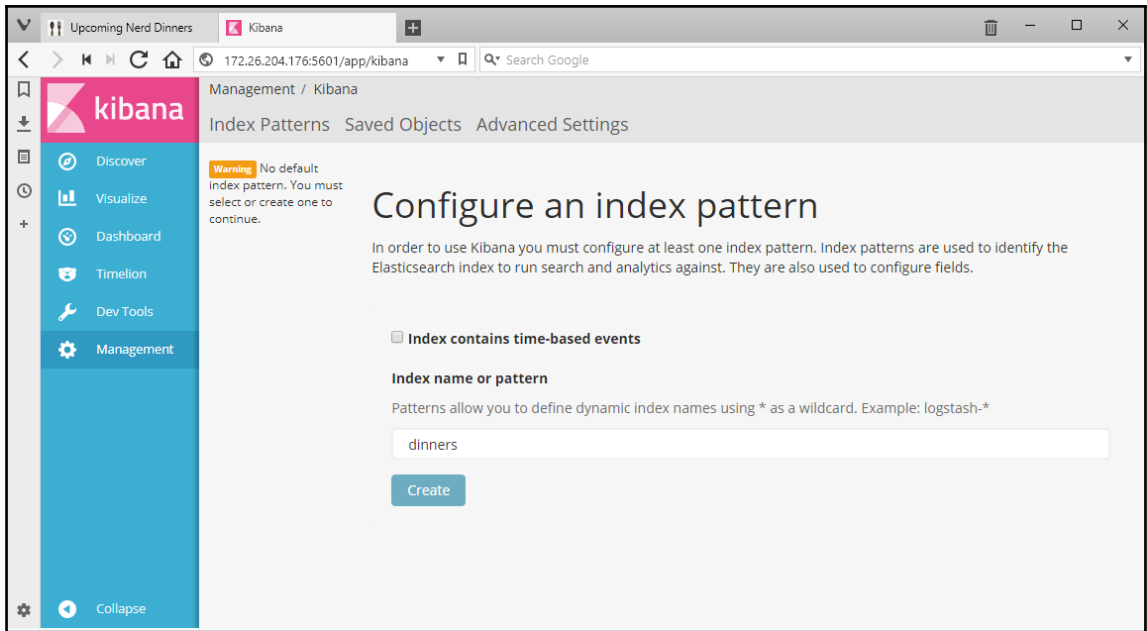
Host's Name

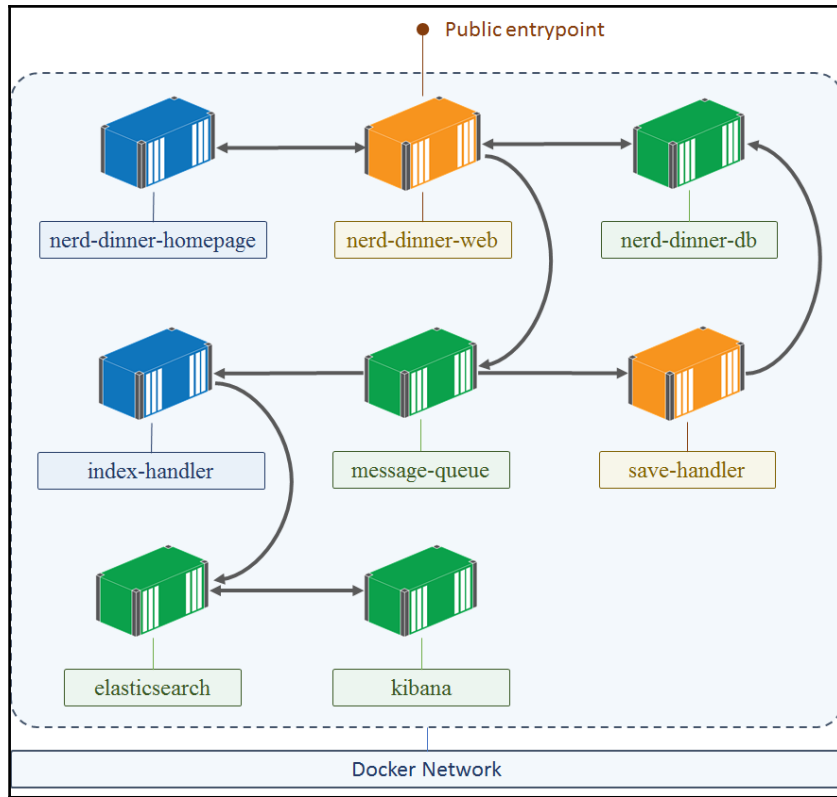
Contact Info

Address, City, State, ZIP

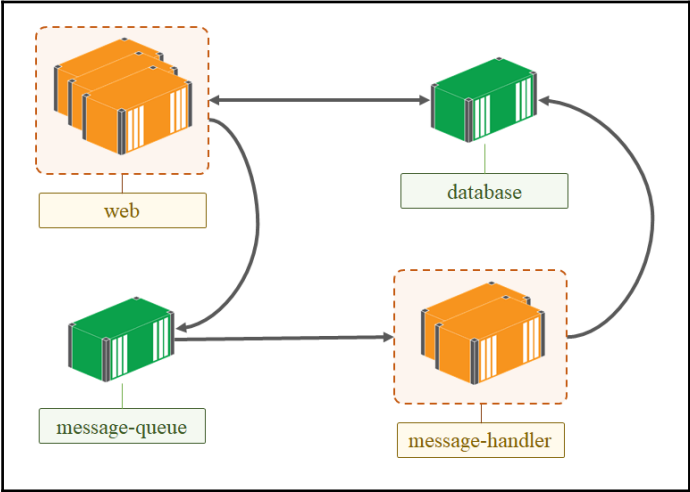
Country



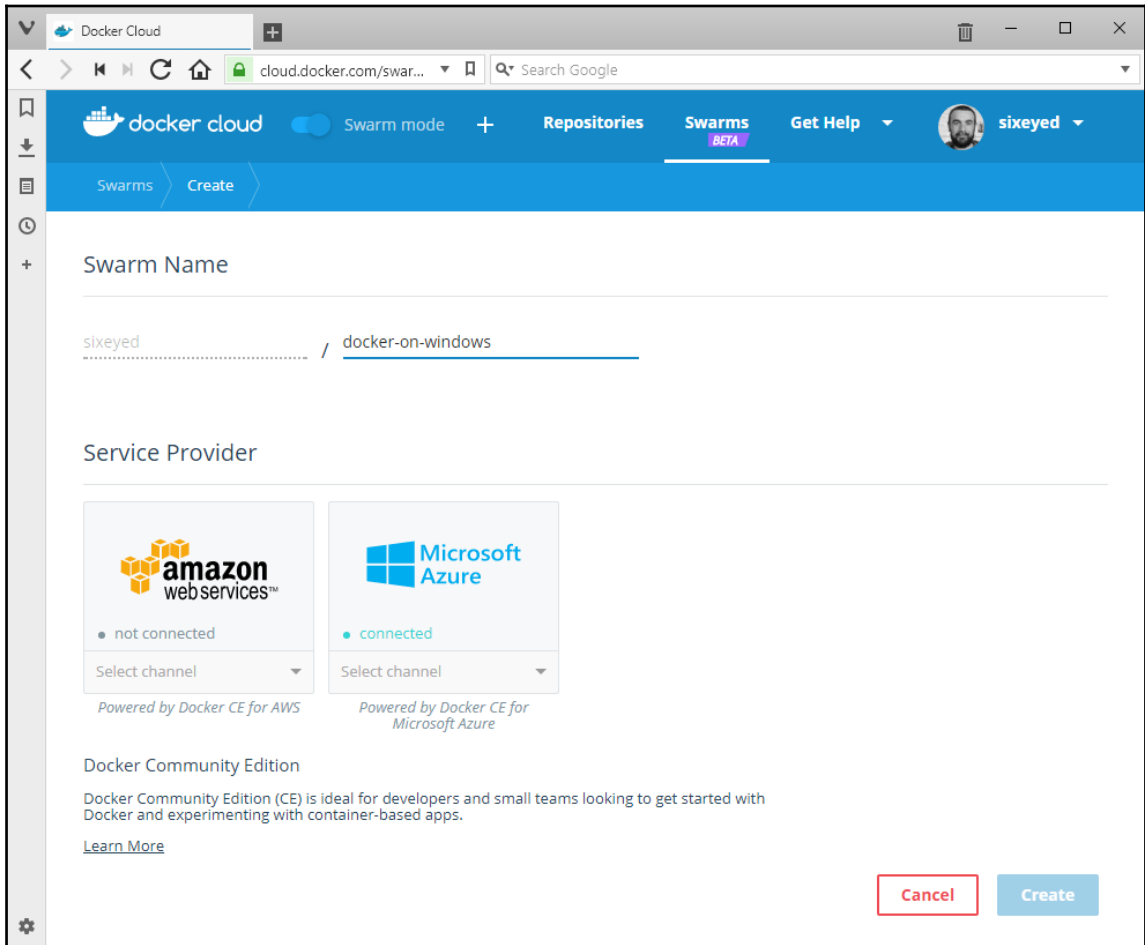


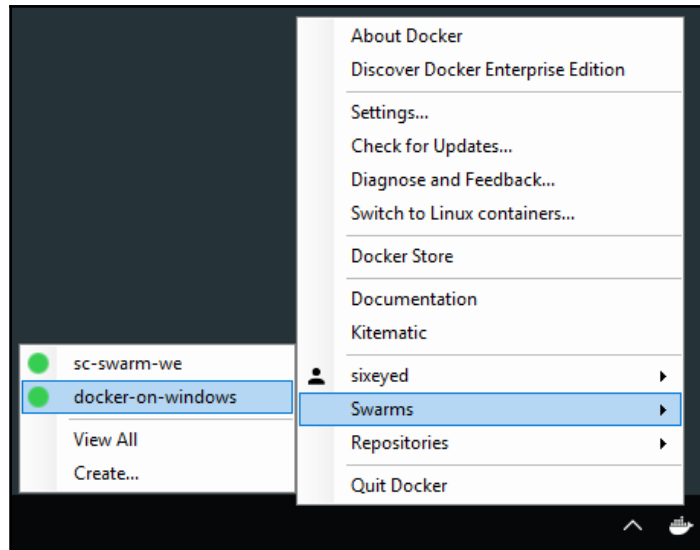


Chapter 06: Organizing Distributed Solutions with Docker Compose

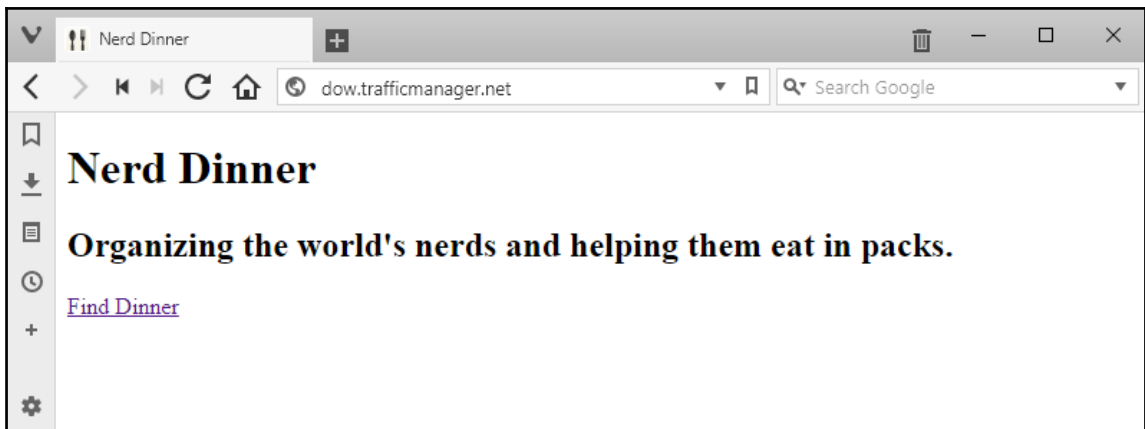


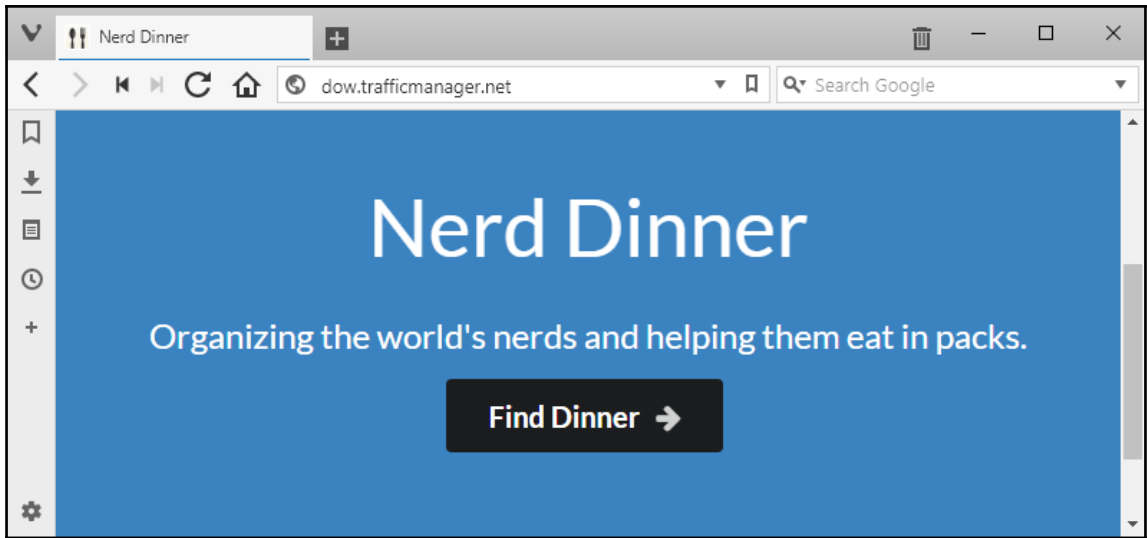
Chapter 07: Orchestrating Distributed Solutions with Docker Swarm



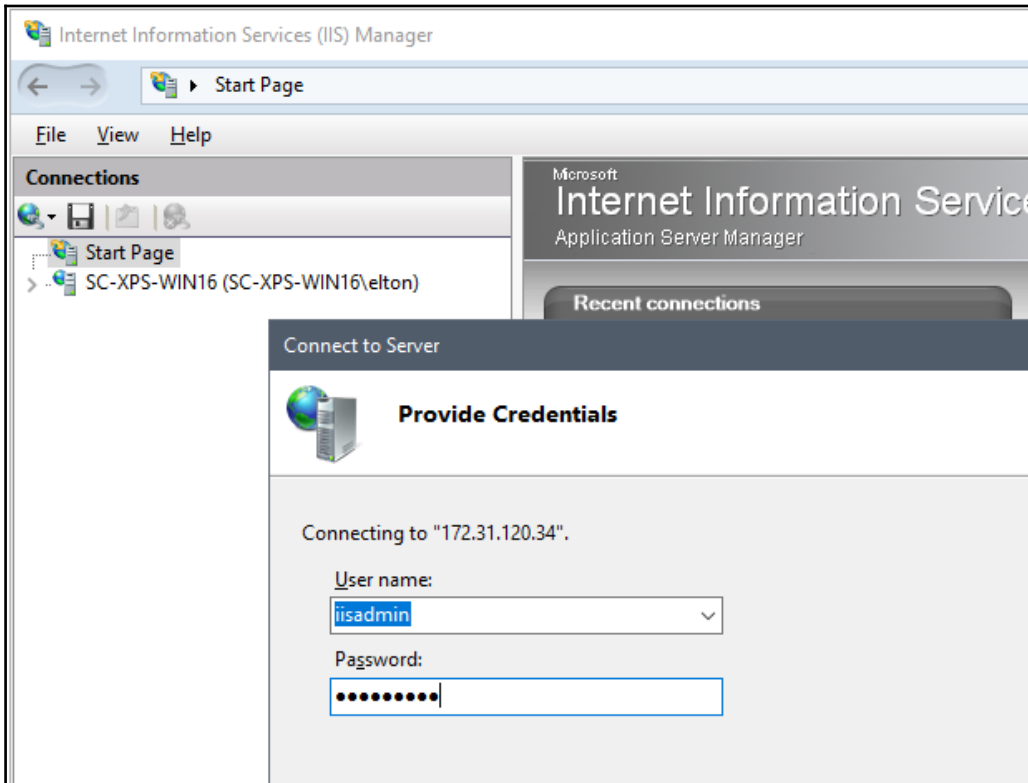


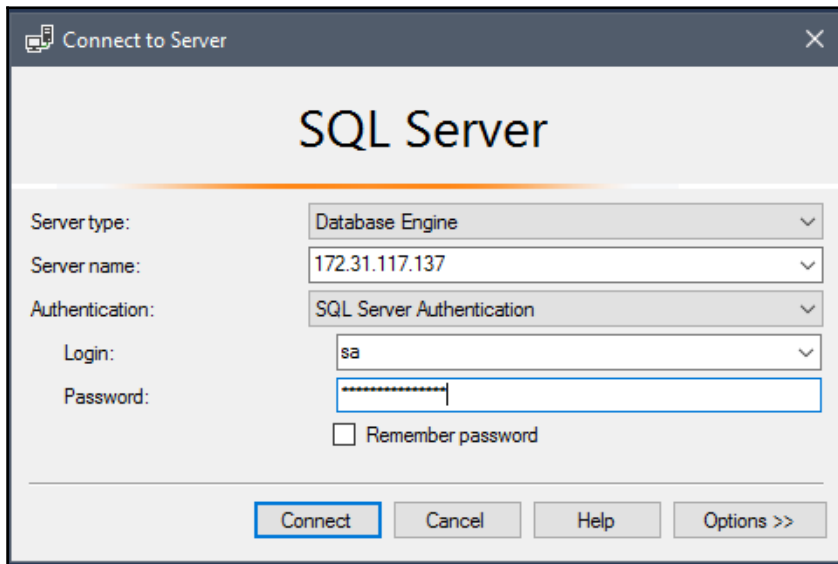
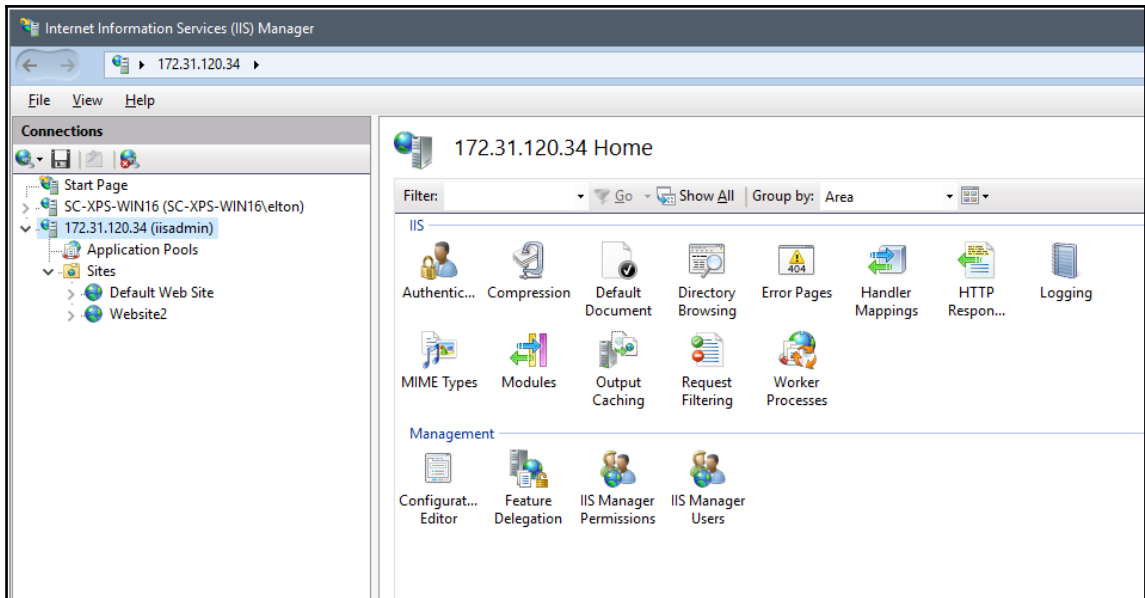
```
Docker Cloud - sixeyed/docker-on-windows - powershell
PS> docker node ls
ID                                HOSTNAME    STATUS    AVAILABILITY    MANAGER STATUS
92t2z4jd1ybb1tzjscp36q6o5 *    ub-node01  Ready    Active
a6sunex8751slt4kts6qqs5o        win-node01 Ready    Active
m2ydcu1ea897dam2wbzo7on7        win-node02 Ready    Active
tf32iwp388o8uiwf1qsmqhdd        win-node00 Ready    Active
PS>
```

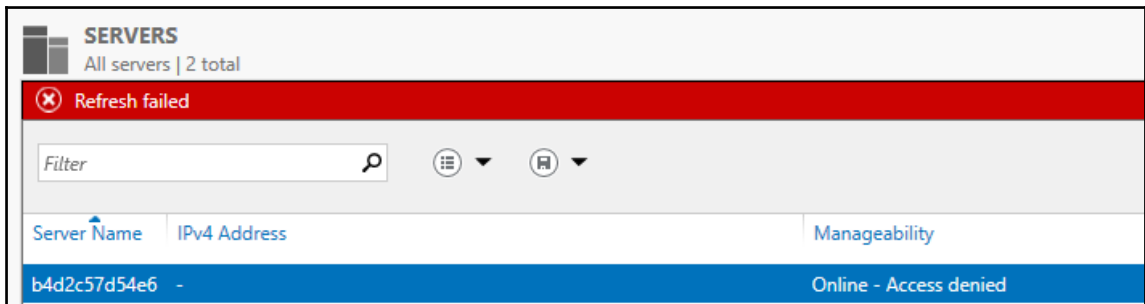
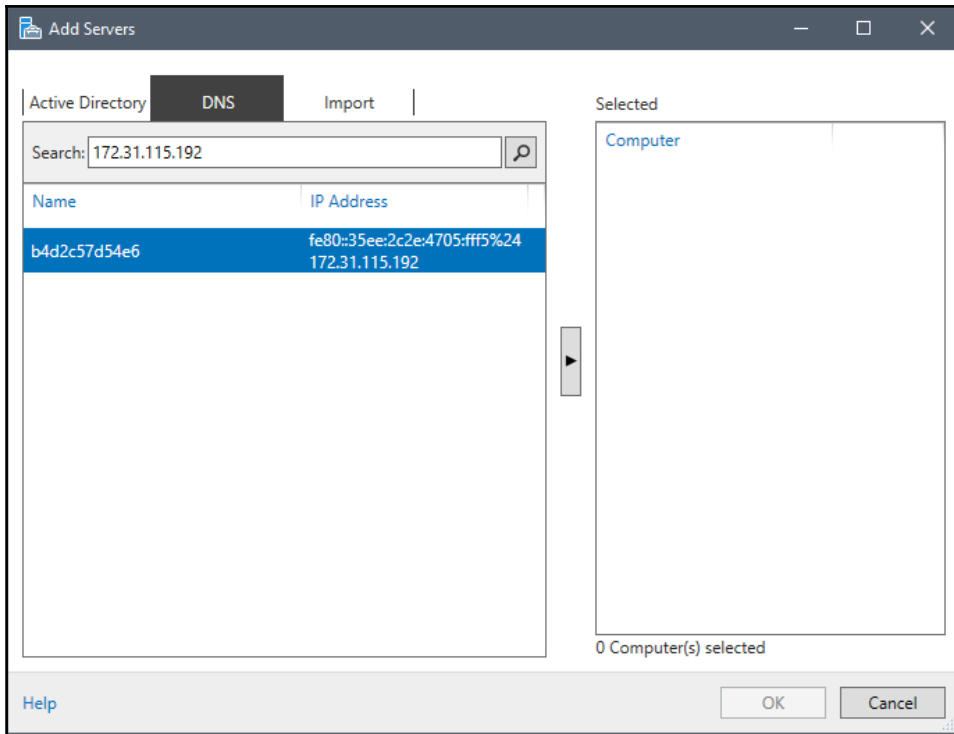




Chapter 08: Administering and Monitoring Dockerized Solutions









SERVERS

All servers | 2 total



Server Name	IPv4 Address	Manageability
B4D2C57D54E6	172.31.115.192	Online - Performance counters not started
SC-XPS-WIN16	169.254.123.217,169.254.252.188,172.31.112.1,192.168.2.146,192.168.56.1	Online - Performance counters not started

EVENTS

All events | 4 total



Server Name	ID	Severity	Source	Log	Date and Time
B4D2C57D54E6	8198	Error	Microsoft-Windows-Security-SPP	Application	03/05/2017 09:58:42
B4D2C57D54E6	701	Error	Microsoft-Windows-TaskScheduler	System	03/05/2017 09:56:41
B4D2C57D54E6	701	Error	Microsoft-Windows-TaskScheduler	System	03/05/2017 09:56:41
B4D2C57D54E6	7023	Error	Microsoft-Windows-Service Control Manager	System	03/05/2017 09:56:41

Visualizer

ub-node01.westeurope.cloudapp.azure.com:8080

Search Google

ub-node01
manager
6.804G RAM

win-node00
worker
7.000G RAM

win-node01
worker
7.000G RAM

win-node02
worker
7.000G RAM

Container Name	Image	Tag	Updated	State
dockercloud-server-proxy	server-proxy	latest	27/6 22:43	running
viz	visualizer:latest@sha256:f72fc40e8ebd12	latest@sha256:f72fc40e8ebd12	28/6 0:2	running
nerd-dinner_kibana	kibana:nanoserver@sha256:0c706d68	nanoserver@sha256:0c706d68	28/6 0:4	running
nerd-dinner_elasticsearch	elasticsearch:nanoserver@sha256:d95b44a1	nanoserver@sha256:d95b44a1	28/6 0:4	running
nerd-dinner_message-que	nats:nanoserver@sha256:f138484b	nanoserver@sha256:f138484b	28/6 0:4	running
nerd-dinner_nerd-dinner-c	ch07-nerd-dinner-db:latest@sha256:f489fa03b27d80	latest@sha256:f489fa03b27d80	28/6 0:5	running
nerd-dinner_nerd-dinner-f	ch03-nerd-dinner-homepag	latest@sha256:a8a28b7f56618	28/6 0:4	running
nerd-dinner_nerd-dinner-i	ch05-nerd-dinner-index-har	latest@sha256:d1d2f4633545	28/6 0:5	running
nerd-dinner_nerd-dinner-s	ch07-nerd-dinner-save-hand	latest@sha256:7871b62d201f8	28/6 0:5	running
nerd-dinner_nerd-dinner-v	ch07-nerd-dinner-web:lates	latest@sha256:2867bb91fd321	28/6 0:7	running
portainer	portainer:latest@sha256:e994817383ae1	latest@sha256:e994817383ae1	27/6 23:25	running

Portainer Cluster overview

swarm

Cluster status

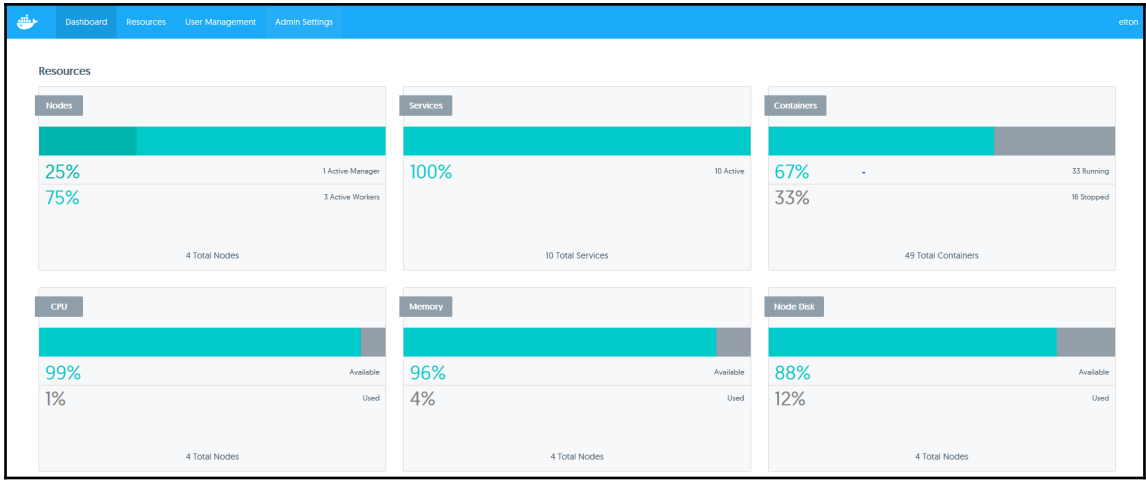
Nodes	4
Docker API version	1.30
Total CPU	8
Total memory	29.85 GB

Node status

Name	Role	CPU	Memory	Engine	IP Address	Status
ub-node01	manager	2	7.3 GB	17.06.0-ce-rc5	10.0.0.4	ready
win-node00	worker	2	7.5 GB	17.06.0-ce-rc5	10.0.0.5	ready
win-node02	worker	2	7.5 GB	17.06.0-ce-rc5	10.0.0.6	ready
win-node01	worker	2	7.5 GB	17.06.0-ce-rc5	10.0.0.7	ready

Portainer Services

Name	Image	Scheduling mode	Published Ports	Updated at	Ownership
dockercloud-server-proxy	dockercloud/server-proxy	global 1 / 4	2376:2376	2017-06-27 22:43:02	public
nerd-dinner_elasticsearch	sixeyed/elasticsearch.nanoserver	replicated 1 / 1 Scale	-	2017-06-28 00:01:40	public
nerd-dinner_kibana	sixeyed/kibana.nanoserver	replicated 1 / 1 Scale	5601:5601	2017-06-28 00:01:43	public
nerd-dinner_message-queue	nats.nanoserver	replicated 1 / 1 Scale	-	2017-06-28 00:01:45	public
nerd-dinner_nerd-dinner-db	dockeronwindows/ch07-nerd-dinner-db.latest	replicated 1 / 1 Scale	-	2017-06-28 00:01:48	public
nerd-dinner_nerd-dinner-homepage	dockeronwindows/ch03-nerd-dinner-homepage.latest	replicated 1 / 1 Scale	-	2017-06-28 00:01:50	public
nerd-dinner_nerd-dinner-index-handler	dockeronwindows/ch05-nerd-dinner-index-handler.latest	replicated 1 / 1 Scale	-	2017-06-28 00:01:52	public
nerd-dinner_nerd-dinner-save-handler	dockeronwindows/ch07-nerd-dinner-save-handler.latest	replicated 1 / 1 Scale	-	2017-06-28 00:01:54	public
nerd-dinner_nerd-dinner-web	dockeronwindows/ch07-nerd-dinner-web.latest	replicated 1 / 1 Scale	80:80	2017-06-28 00:01:57	public
portainer	portainer/portainer.latest	replicated 1 / 1 Scale	9000:9000	2017-06-27 23:25:19	public



Dashboard Resources User Management Admin Settings

Stacks & Applications

RESOURCES

- Services
- Containers
- Images
- Nodes**
- Networks
- Volumes
- Secrets

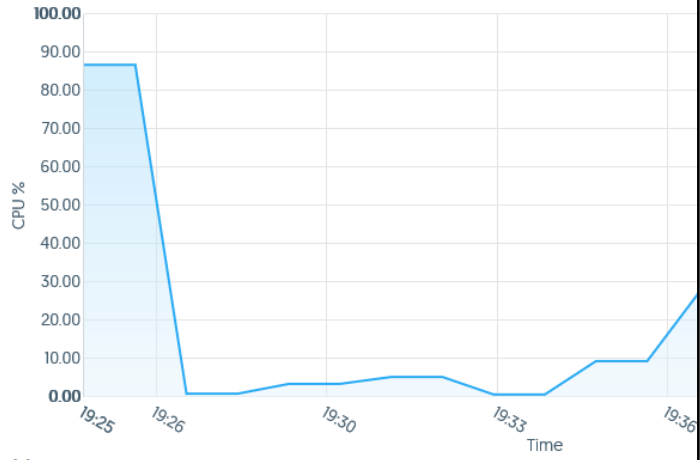
+ Add Node

	NAME	ROLE	ADDRESS	ENGINE	OS
● Active	win-worker-01	Worker	10.0.0.6	17.03.1-ee-3	windows x86_64
● Active	ub-worker-01	Worker	10.0.0.7	17.03.1-ee-3	linux x86_64
● Active	ub-ucp-01	Manager [Leader]	10.0.0.4	17.03.1-ee-3	linux x86_64
● Active	ub-dtr-01	Worker	10.0.0.5	17.03.1-ee-3	linux x86_64

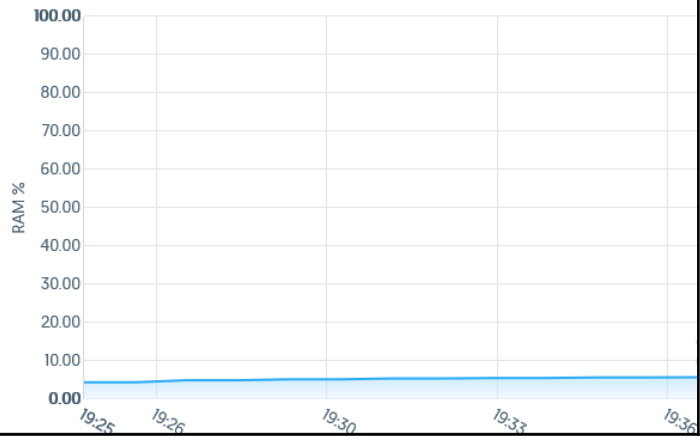
Node: ub-ucp-01

DETAILS **STATS** ENGINE TASKS AGENT LOG

CPU



Memory





DETAILS STATS ENGINE **TASKS** AGENT LOG

Remove Node

Filter ▾

▼	IMAGE	CONTAINER ID
●	dockeronwindows/ch05-nerd-dinner-index-handler:latest	cf204c447174
●	dockeronwindows/ch03-nerd-dinner-homepage:latest	f79b673d765e
●	dockeronwindows/ch05-nerd-dinner-save-handler:latest	98c47178c090
●	sixeyed/elasticsearch:nanoserver	2efe8e6b1473
●	nats:nanoserver	94ba3c9da348
●	dockeronwindows/ch06-nerd-dinner-db:latest	7ddd01de4cc2
●	dockeronwindows/ch05-nerd-dinner-web:latest	92f402f72b1f

Create Volume ✕

NAME ?

PERMISSIONS LABEL [COM.DOCKER.UCP.ACCESS.LABEL] ?

DRIVER ?

OPTIONS ?

Labels ?

+ Add label

No labels defined

Stacks & Applications

RESOURCES

- Services
- Containers
- Images**
- Nodes
- Networks
- Volumes
- Secrets

Show system images

Only images that are loaded in UCP are listed here. Use the DTR web UI to manage images managed by DTR.

<input type="checkbox"/>	NAMES	ID	VIRTUAL SIZE
<input type="checkbox"/>	sixeyed/umbraco-demo.msbuild	78d8234d83c1	10,746.39 MB
<input type="checkbox"/>	docker/dtr-jobrunner-2.2.4	c30992c847a	546.43 MB
<input type="checkbox"/>	docker/dtr-nginx-2.2.4	fd5b8c16b46	111.86 MB
<input type="checkbox"/>	docker/dtr-2.2.4	54d732895fc	118.15 MB
<input type="checkbox"/>	docker/dtr-rethink-2.2.4	929fa9d1f0b	95.15 MB
<input type="checkbox"/>	docker/dtr-notary-server-2	d581eb8ac3b	116.58 MB
<input type="checkbox"/>	docker/dtr-notary-signer-2	23316ab4219	115.49 MB
<input type="checkbox"/>	docker/dtr-registry-2.2.4	1145457a464	113.95 MB

Pull Image

NAME ?

Registry requires authentication ?

Image: 7c8b98013171



DETAILS

CONFIGURATION

HISTORY

Remove Image

ID	sha256:7c8b980131718da0d0ca8d47b2fecfbb6c3386dfd134d9f18d1f91338515a901
Created	2017-02-13 17:12:24 +0000
Size	9 GB [virtual 9 GB]
Author	Unknown
Comment	None
Docker Version	1.13.1
Platform	windows amd64

Tags

dockeronwindows/ch05-nerd-dinner-web:latest

Digests

dockeronwindows/ch05-nerd-dinner-web@sha256:19615ff7ca247af15681c5475c4aa2f4aab35b826045aa9144db8cf96cf40fd8

Labels

This image does not have any labels defined

Create Network

NAME [?](#)

PERMISSIONS LABEL [COM.DOCKER.UCP.ACCESS.LABEL] [?](#)

DRIVER [?](#)

MTU [?](#)

OPTIONS [?](#)

Encrypt communications between containers on different nodes [?](#)

Allow any container to attach to this network [?](#)

Enable IPv6 networking

Internal network [?](#)

Enable hostname based routing [?](#)

IPAM

IPAM DRIVER [?](#)

[+](#) Add IPAM Configuration

Deploy compose.yml



APPLICATION NAME

DEPLOY AS

Services

Containers

APPLICATION DEFINITION

```
16
17   nerd-dinner-db:
18     image: dockeronwindows/ch06-nerd-dinner-db
19     env_file:
20       - db-credentials.env
21     volumes:
22       - db-data:c:\database
23     networks:
24       - nd-net
25
26   kibana:
27     image: sixeyed/kibana:nanoserver
28     depends_on:
29       - elasticsearch
30     networks:
31       - nd-net
32
33   nerd-dinner-save-handler:
34     image: dockeronwindows/ch05-nerd-dinner-save-handler
35     depends_on:
36       - nerd-dinner-db
37       - message-queue
38     env_file:
39       - db-credentials.env
40     networks:
41       - nd-net
42
43   nerd-dinner-index-handler:
44     image: dockeronwindows/ch05-nerd-dinner-index-handler
45     depends_on:
46       - elasticsearch
```

[Import a docker-compose.yml file](#)

Deploy Service



Details

Basic service configuration



Scheduling

Adjust scheduler related settings and constraints



Resources

Attach networks, mount volumes, set resources reservations and limits



Environment

Labels and environment variables

SERVICE NAME [?](#)

IMAGE NAME [?](#) *

Registry requires authentication [?](#)

MODE [?](#)

REPLICAS [?](#)

COMMAND [?](#)

ARGUMENTS [?](#)

WORKING DIRECTORY [?](#)

USER [?](#)

STOP GRACE PERIOD [SECONDS] [?](#)

PERMISSIONS LABEL [COM.DOCKER.UCP.ACCESS.LABEL] [?](#)

Deploy now!

[Next](#)

Deploy Service



Details

Basic service configuration



Scheduling

Adjust scheduler related settings and constraints



Resources

Attach networks, mount volumes, set resources reservations and limits



Environment

Labels and environment variables

UPDATE PARALLELISM

UPDATE DELAY [SECONDS]

FAILURE ACTION

MAX FAILURE RATIO

Restart Policy

CONTAINER EXIT CONDITION

DELAY [SECONDS]

MAX ATTEMPTS

WINDOW

Constraints

CONSTRAINT *

Deploy Service



Details
Basic service configuration



Scheduling
Adjust scheduler related settings and constraints



Resources
Attach networks, mount volumes, set resources reservations and limits



Environment
Labels and environment variables

Ports ?

INTERNAL PORT ? *

PROTOCOL ? *

PUBLISH MODE ?

PUBLIC PORT ?

[+ Add hostname based route](#)

i The UCP HTTP Routing Mesh is not enabled on this cluster, to use hostname based routes, contact an administrator to enable this feature

No ports published

Networks ?

[+ Attach a Network](#)

NETWORK

DRIVER

nerd-dinner-network

overlay



Mounts ?

[+ Volume](#)

[+ Bind](#)

[+ tmpfs](#)

No volumes mounted.

Reservations

CPU ?

No reservation set

Memory [MB]

No reservation set

Deploy Service



Details

Basic service configuration



Scheduling

Adjust scheduler related settings and constraints



Resources

Attach networks, mount volumes, set resources reservations and limits



Environment

Labels and environment variables

Secrets [?](#)

[+ Use a secret](#)

No secrets are in use.

Environment Variables [?](#)

NAME *

VALUE

Done

Cancel

No environment variables defined

Service Labels [?](#)

[+ Add service label](#)

KEY

VALUE

app.name

nerd-dinner



Container Labels [?](#)

[+ Add container label](#)

No container labels defined

Log Driver [?](#)

LOG DRIVER NAME

Service: nerd-dinner_nerd-dinner-index-handler ✕

DETAILS SCHEDULING ENVIRONMENT RESOURCES TASKS Actions ▾

ID 6x7cbs9wo6uforpb4b1raaf5k

Name nerd-dinner_nerd-dinner-index-handler

Permission Label ▾

Created 2017-05-04 09:35:26 +0100

Service Specification Updated 2017-05-04 09:40:39 +0100

Update Status **Completed**

Update Message update completed

Last Error 🕒 2 hours ago

Error **task: non-zero exit [255]**

Task Template

Image `dockeronwindows/ch05-nerd-dinner-index-handler:latest@sha256:4045309aceba81d018a50be2b985ffbef5799227951fd982640773c78ce71da1`

Service: nerd-dinner_nerd-dinner-index-handler

DETAILS **SCHEDULING** ENVIRONMENT RESOURCES TASKS

Mode Replicated

Scale ✔ ✘



DETAILS

SCHEDULING

ENVIRONMENT

RESOURCES

TASKS

Actions ▾

5 / 5 RUNNING TASKS

Filter ▾

● 5 Active ● 0 Updating ● 4 Errored ● 1 Inactive

▼	NAME ▲	IMAGE	NODE	CREATED		
●	bedf06a32298	nerd-dinner_nerd-dinner-index-handler.4	dockeronwindows/ch05-nerd-dinner-index-handler:latest	win-worker-01	2017-05-04 11:31:53 +0100	started
●	3081d2af6dad	nerd-dinner_nerd-dinner-index-handler.2	dockeronwindows/ch05-nerd-dinner-index-handler:latest	win-worker-01	2017-05-04 11:31:53 +0100	started
●	5d8e2c4bc3c4	nerd-dinner_nerd-dinner-index-handler.1	dockeronwindows/ch05-nerd-dinner-index-handler:latest	win-worker-01	2017-05-04 09:39:38 +0100	started
●	18d4f238b00e	nerd-dinner_nerd-dinner-index-handler.3	dockeronwindows/ch05-nerd-dinner-index-handler:latest	win-worker-01	2017-05-04 11:32:25 +0100	started
●	68df63b22fff	nerd-dinner_nerd-dinner-index-handler.5	dockeronwindows/ch05-nerd-dinner-index-handler:latest	win-worker-01	2017-05-04 11:31:53 +0100	started

Container: nerd-dinner_nerd-dinner-index-handler.1.8agaudqsrlicyhkbyaa7hmqy

DETAILS  LOGS  STATS  CONSOLE

Container Actions

Environment 4 variables -

ELASTICSEARCH_URL	http://elasticsearch:9200
MESSAGE_QUEUE_URL	nats://message-queue:4222
DOTNET_VERSION	1.0.3
DOTNET_DOWNLOAD_URL	https://dotnetcli.blob.core.windows.net/dotnet/preview/Binaries/1.0.3/dotnet-win-x64.1.0.3.zip

Labels 8 labels +

Networks nerd-dinner_nd-net +

Ports

Processes 14 processes -

NAME	PID	CPU	PRIVATE WORKING SET
smss.exe	11180	00:00:00.000	200.7 kB
csrss.exe	10672	00:00:00.015	340 kB

Container: nerd-dinner_nerd-dinner-index-handler.1.8agaudqsrliclyuhkbyaa7hmqy ✕

DETAILS  LOGS  STATS >_ CONSOLE Container Actions

Log Options 100 lines Auto-scroll logs

```
Connecting to message queue url: nats://message-queue:4222
Listening on subject: events.dinner.created, queue: index-dinner-handler
Received message, subject: events.dinner.created
Indexing new dinner, created at: 5/4/2017 8:56:19 AM; event ID: 8fcfd9eb-48f0-4fbc-9e50-0a1694b51095
```

Container: nerd-dinner_nerd-dinner-index-handler.1.8agaudqsrliclyuhkbyaa7hmqy

DETAILS  LOGS  STATS >_ CONSOLE Container Actions

powershell ? Disconnect

```
Windows PowerShell
Copyright (C) 2016 Microsoft Corporation. All rights reserved.

PS C:\index-handler> get-process dotnet

Handles NPM(K) PM(K) WS(K) CPU(s) Id SI ProcessName
-----
0 45 26980 45480 2.25 13808 60 dotnet

PS C:\index-handler>
```


Dashboard Resources User Management Admin Settings

All Users

TEAMS + Create

CMS Admins

CMS Users

MEMBERS PERMISSIONS SETTINGS

+ Add Label 0 Labels Selected

RESOURCE LABEL	PERMISSION
<input type="checkbox"/> cms	Full Control
<input type="checkbox"/> finance	No Access
<input type="checkbox"/> nerd-dinner	View Only

Service: cms

DETAILS SCHEDULING ENVIRONMENT RESOURCES TASKS

ID i62rfgo3r1k2j8it4rk7ya5on

Name cms

Permission Label cms

Dashboard Resources cms-user

Stacks & Applications

RESOURCES

Services

Containers

Nodes

Networks

Volumes

Secrets


Create a Service 0 Services Selected

Search...

STATUS	NAME	IMAGE	MODE	LAST UPDATED
<input type="checkbox"/> ● 1 / 1	cms	sixeyed/umbraco-demo:msbuild	Replicated	7 minutes ago Last error: an hour ago


Chapter 09: Understanding the Security Risks and Benefits of Docker

Scan results for **alpine:3.5**

 **Your image is clean!** No known vulnerabilities were found.
New scan in progress, showing results from 2 months ago

Layers **Components**

1 [ADD file:730030a984f5...1b42321140c3927 in /](#)
Compressed size: 1.8MB

 No vulnerable components

Scan results for **nats:nanoserver**

1 of 82 components is vulnerable
Scanned 4 months ago

Layers **Components**


1 [powershell -Command \\$... 'SilentlyContinue'\];](#)
Compressed size: 241.0MB

1 vulnerable component

Layers **Components**

1 [powershell -Command \\$... 'SilentlyContinue'\];](#)
Compressed size: 241.0MB

COMPONENT	VULNERABILITY	SEVERITY
sqlite3 3.9.2 Public domain:Permissive License	CVE-2016-6153	Major

[VIEW ALL](#) 

Docker Trusted Registry

https://ub-dtr-01.westeurope.cloudapp.azure.com

docker trusted registry

Search

elton

Users > elton

REPOSITORIES TEAMS SETTINGS

REPOSITORY	SCAN ON IMAGE PUSH	
elton / private-app private A private repo	✓	View Details

Docker Trusted Registry 2.2.4

nerd-dinner

MEMBERS REPOSITORIES SETTINGS

Org Members

TEAMS +

- infrastructure
- project

Add repository

REPOSITORY	SCAN ON IMAGE PUSH	PERMISSIONS
nerd-dinner / db private Database		View Details
nerd-dinner / elasticsearch private Elasticsearch for indexing		View Details
nerd-dinner / homepage private New homepage		View Details
nerd-dinner / index-handler private Message handler for reporting database		View Details
nerd-dinner / kibana private Kibana for self-service analytics		View Details
nerd-dinner / nats private NATS message queue		View Details
nerd-dinner / save-handler private Message handler for persistence		View Details
nerd-dinner / web private Web app		View Details

nerd-dinner

MEMBERS REPOSITORIES SETTINGS

Org Members

TEAMS +

- infrastructure
- project

Add repository

REPOSITORY	SCAN ON IMAGE PUSH	PERMISSIONS
nerd-dinner / elasticsearch private Elasticsearch for indexing View Details		Read & Write ✕
nerd-dinner / kibana private Kibana for self-service analytics View Details		Read & Write ✕
nerd-dinner / nats private NATS message queue View Details		Read & Write ✕

nerd-dinner

MEMBERS REPOSITORIES SETTINGS

Org Members

TEAMS +

- infrastructure
- project

Add repository

REPOSITORY	SCAN ON IMAGE PUSH	PERMISSIONS
nerd-dinner / db private Database View Details		Read & Write ✕
nerd-dinner / elasticsearch private Elasticsearch for indexing View Details		Read only ✕
nerd-dinner / homepage private New homepage View Details		Read & Write ✕

Content Trust Settings

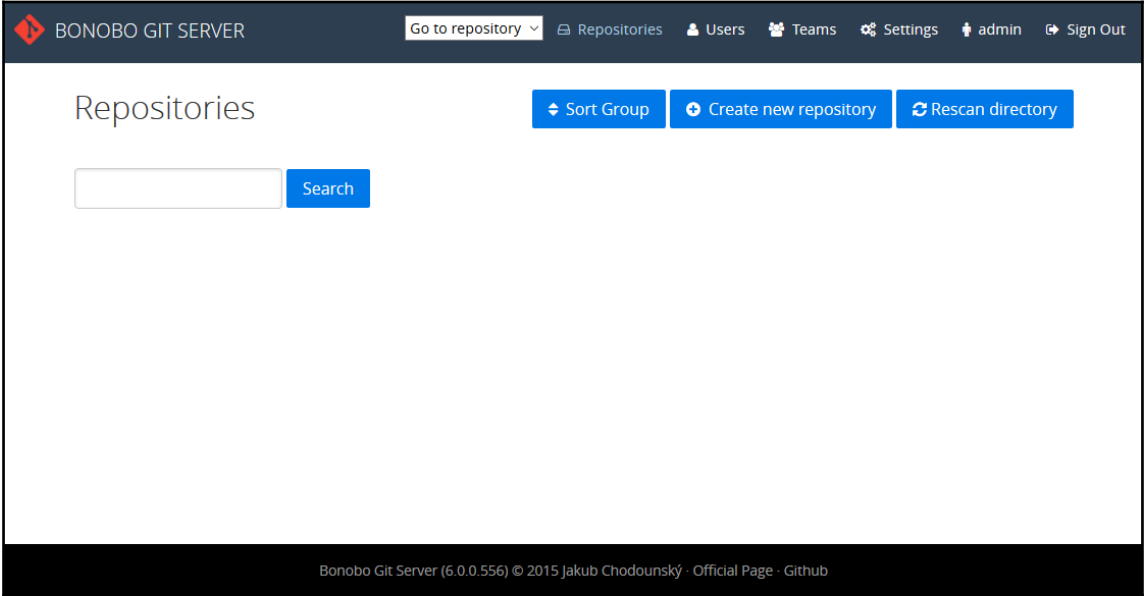
Only run signed images [?](#)

REQUIRE SIGNATURE FROM ALL OF THESE TEAMS [?](#)

Release Managers ✕ Sys Admins ✕ UAT ✕

[Update](#)

Chapter 10: Powering a Continuous Deployment Pipeline with Docker





Repositories

Sort Group

Create new repository

Rescan directory

Search

Name	Description	
dockerfiles-windows		
presentations		
dockersamples		
newsletter-signup		
packt		
docker-on-windows		

Getting Started

✓ Folders Plugin

🔄 Git plugin

```
** bouncycastle API Plugin
Folders Plugin
** Structs Plugin
** Pipeline: Step API
** Pipeline: SCM Step
** Credentials Plugin
** SSH Credentials Plugin
** Jenkins Git client plugin
** SCM API Plugin
** Display URL API
** Jenkins Mailer Plugin
** JUnit Plugin
```

** - required dependency


- [Back to Dashboard](#)
- [Manage Jenkins](#)
- [Update Center](#)

Filter:

Updates Available Installed Advanced

Install	Name	Version
NET Development		
<input type="checkbox"/>	CCM Plug-in This plug-in generates the trend report for CCM, an open source static code analysis program.	3.1
<input type="checkbox"/>	change-assembly-version-plugin	1.5.1
<input type="checkbox"/>	ExCop Runner plugin	1.1
<input type="checkbox"/>	MSBuild Plugin	1.27
<input type="checkbox"/>	MSTest plugin Generates test reports for MSTest.	0.19
<input type="checkbox"/>	MSTestRunner plugin	1.3.0
<input type="checkbox"/>	NAnt Plugin	1.4.3
<input type="checkbox"/>	NCover plugin	0.3
<input checked="" type="checkbox"/>	PowerShell plugin	1.3
<input type="checkbox"/>	Violation Comments to Bitbucket Server Plugin Finds violations reported by code analyzers and comments Bitbucket Server (or Stash) pull requests (or commits) with them.	1.50
<input type="checkbox"/>	Violations plugin	0.7.11
<input type="checkbox"/>	Visual Studio Code Metrics Plugin	1.7
<input type="checkbox"/>	VSTest Runner plugin	1.0.4

[Install without restart](#) [Download now and install after restart](#) Update information obtained: 3 min 12 sec ago [Check now](#)

 BONOBO @HOME [Repositories](#) [Users](#) [Teams](#) [Settings](#) [Elton Stoneman](#) [Sign Out](#)

docker-on-windows

[Details](#) [Repository Browser](#) [Commits](#) [Tags](#) [Download](#) [Clone](#)

Name **docker-on-windows**

Git URL [Copy](#) `http://192.168.2.160/Bonobo.Git.Server/docker-on-windows.git`

Personal URL [Copy](#) `http://sixeyed@192.168.2.160/Bonobo.Git.Server/docker-on-windows.git`

Group **packt**

Description

Anonymous **No**

Anonymous push **Global**

Use global linkify settings


Link Regex

Link Url

Contributors [Jenkins CI](#)

Administrators [Elton Stoneman](#)

Teams

 **Jenkins** 1 [Elton Stoneman](#) | [log out](#)

Jenkins > Credentials > System > Global credentials (unrestricted) > jenkins/'*****' (bonobo-jenkins)

[Back to Global credentials \(unrestricted\)](#) Scope [?](#)

[Update](#) Username [?](#)

[Delete](#) Password [?](#)

[Move](#) ID [?](#)

Description [?](#)

Jenkins 1 search Elton Stoneman | log out









Jenkins > Credentials > System > Global credentials (unrestricted) >

[Back to credential domains](#)

[Add Credentials](#)

Global credentials (unrestricted)

Credentials that should be available irrespective of domain specification to requirements matching.

Name	Kind	Description
 jenkins/***** (bonobo-jenkins)	Username with password	bonobo-jenkins 
 ca.pem (docker-server-ca)	Secret file	docker-server-ca 
 cert.pem (docker-server-cert)	Secret file	docker-server-cert 
 key.pem (docker-server-key)	Secret file	docker-server-key 

Icon: [S](#) [M](#) [L](#)


General **Source Code Management** Build Triggers Build Environment Bindings Build Post-build Actions


Source Code Management

None

Git

Repositories


Repository URL 

Credentials 


[Advanced...](#)

[Add Repository](#)

Branches to build

Branch Specifier (blank for 'any') 

[Add Branch](#)

Repository browser 

Additional Behaviours [Add](#)

General Source Code Management Build Triggers **Build Environment** Bindings Build Post-build Actions

Build Environment

- Delete workspace before build starts
- Abort the build if it's stuck
- Add timestamps to the Console Output
- Use secret text(s) or file(s) ?

Bindings

Secret file X ?

Variable ?

Credentials Specific credentials Parameter expression ?

Ad

Username and password (separated) X ?

Username Variable ?

Password Variable ?

Credentials Specific credentials Parameter expression ?

Ad

Home Page

dockerwin-test.westeurope.cloudapp.azure.com

Search Google

Have you tried Image2Docker?

Image2Docker - tools for extracting apps from VMs into Dockerfiles.

Join us in copenhagen!
dockercon17 october 16-18
[register now](#)

Automatically migrate apps to Docker

Your first step in lifting and shifting existing workloads to Docker, without changing code. Open source tools for Linux and Windows.

Image2Docker is focused on Web workloads. You can extract LAMP apps from Linux, and ASP.NET apps from Windows - straight into Dockerfiles.

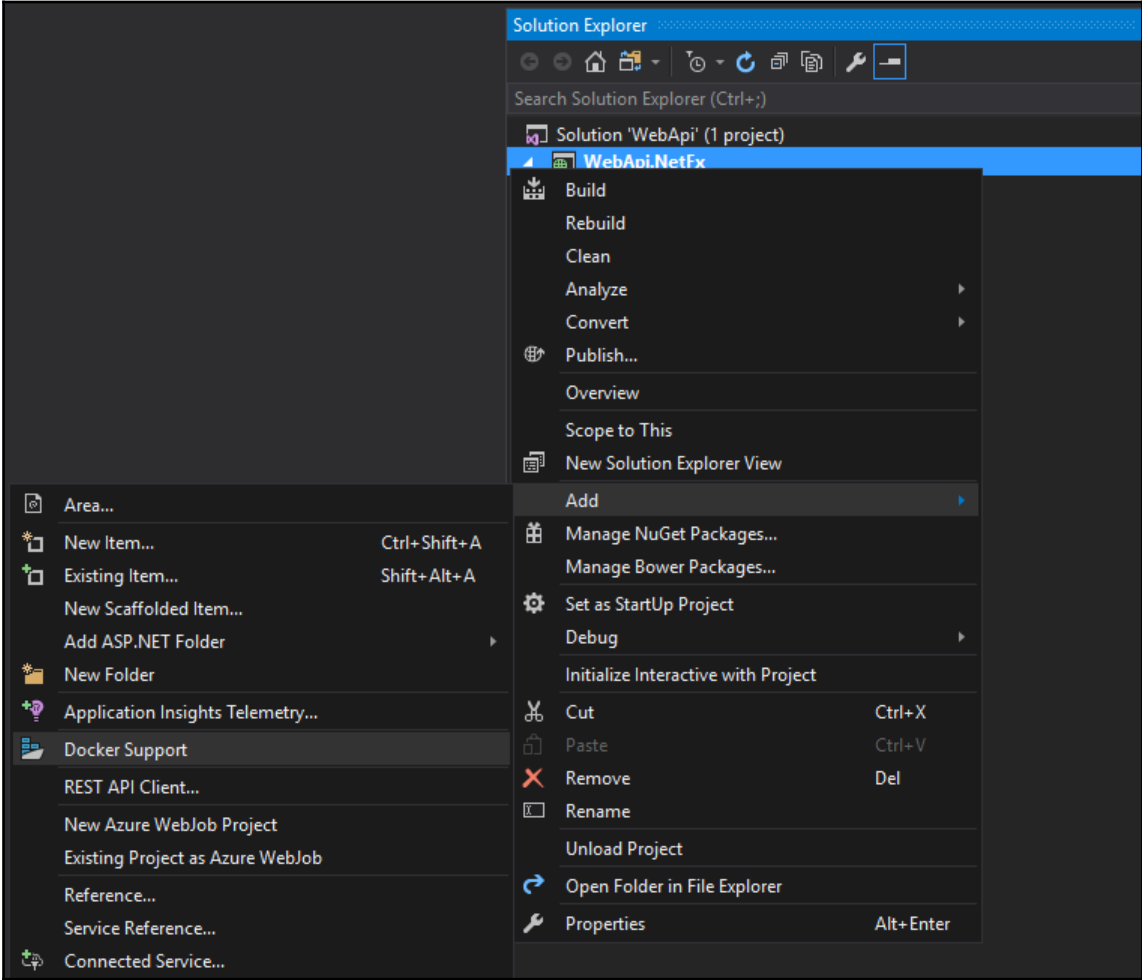
[Check out Image2Docker for Linux](#) | [Check out Image2Docker for Windows](#)

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Chapter 11: Debugging and Instrumenting Application Containers



WebApi (Debugging) - Microsoft Visual Studio (Administrator)

File Edit View Project Build Debug Team Tools Test Analyze Window Help

Debug Any CPU Continue

ValuesController.cs docker-compose.yml docker-compose.vs.debug.yml Dockerfile

WebApi.NetFx WebApi.NetFx.Controller

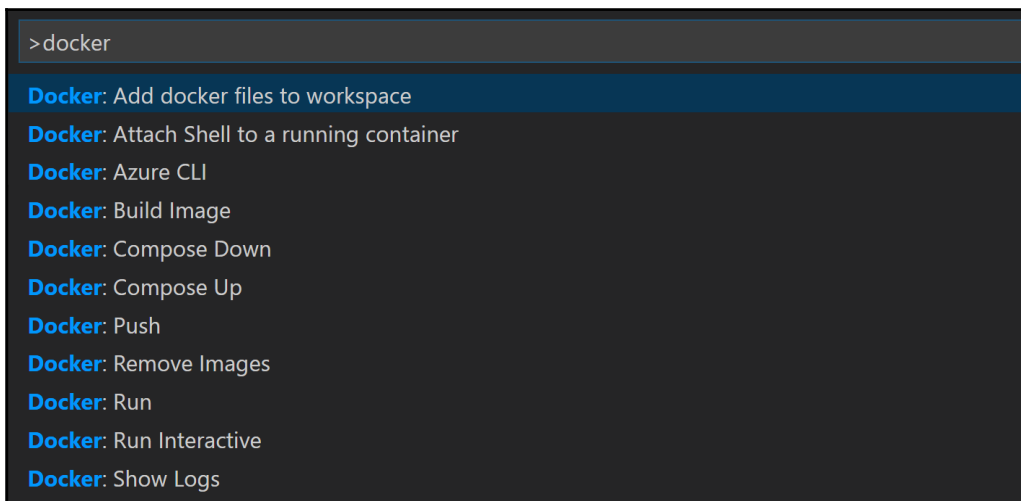
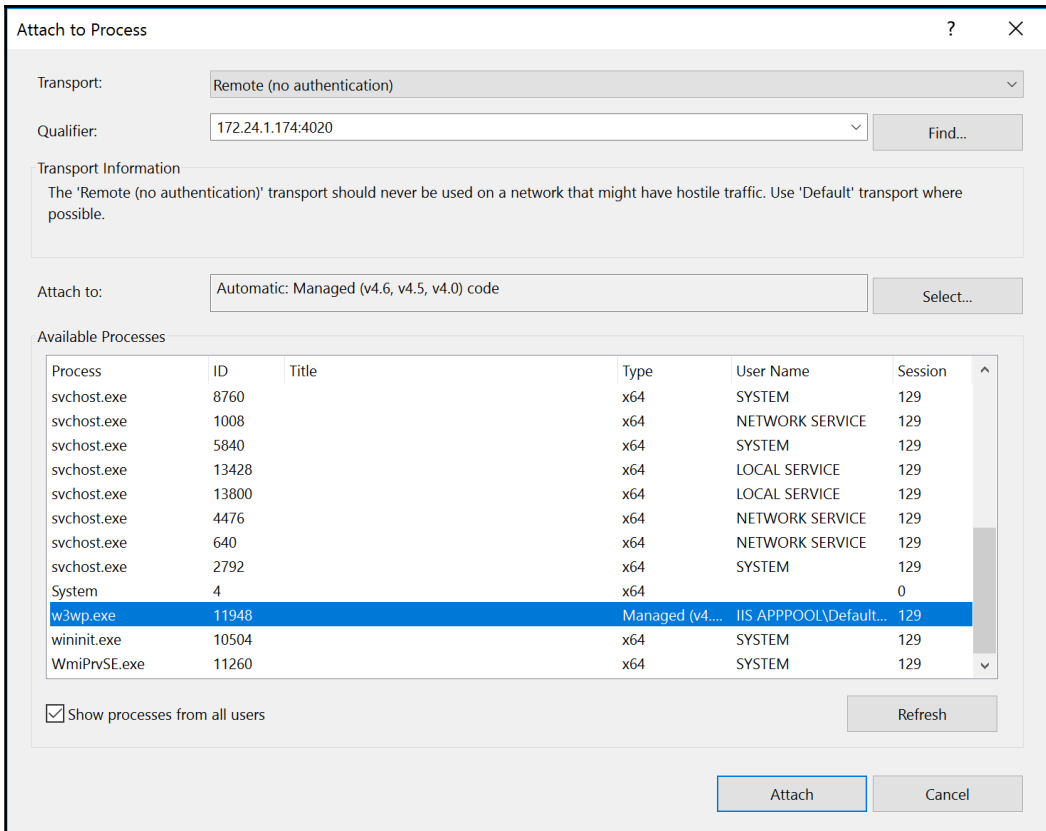
```
5 {
6   0 references | 0 changes | 0 authors, 0 changes
   public class ValuesController : ApiController
7   {
8     0 references | 0 changes | 0 authors, 0 changes
     public IHttpActionResult Get()
9     {
10      return Ok(new string[] { "value1", "value2" });
11    }
12
13   0 references | 0 changes | 0 authors, 0 changes
     public IHttpActionResult Get(int id)
14     {
15      return Ok($"value: {id}, yeah!"); ≤7,187ms elapsed
16    }
17  }
18 }
19 }
```

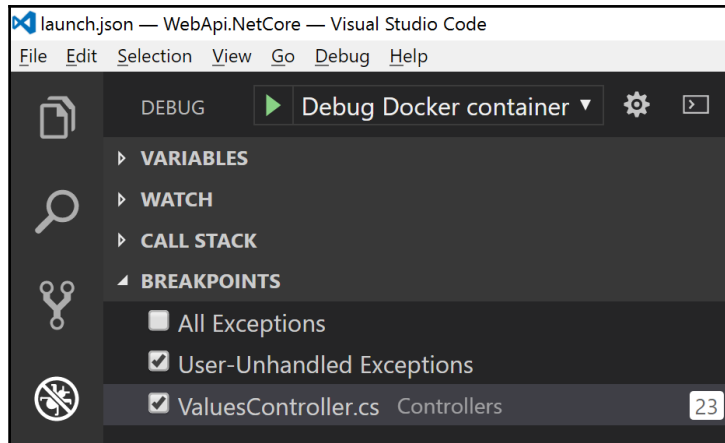
Connecting... 172.24.9.110/api/values/11

This XML file does not appear to have any style information associated with it. The document tree is shown below.

```
<string>value: 10, yeah!</string>
```

Waiting for 172.24.9.110...



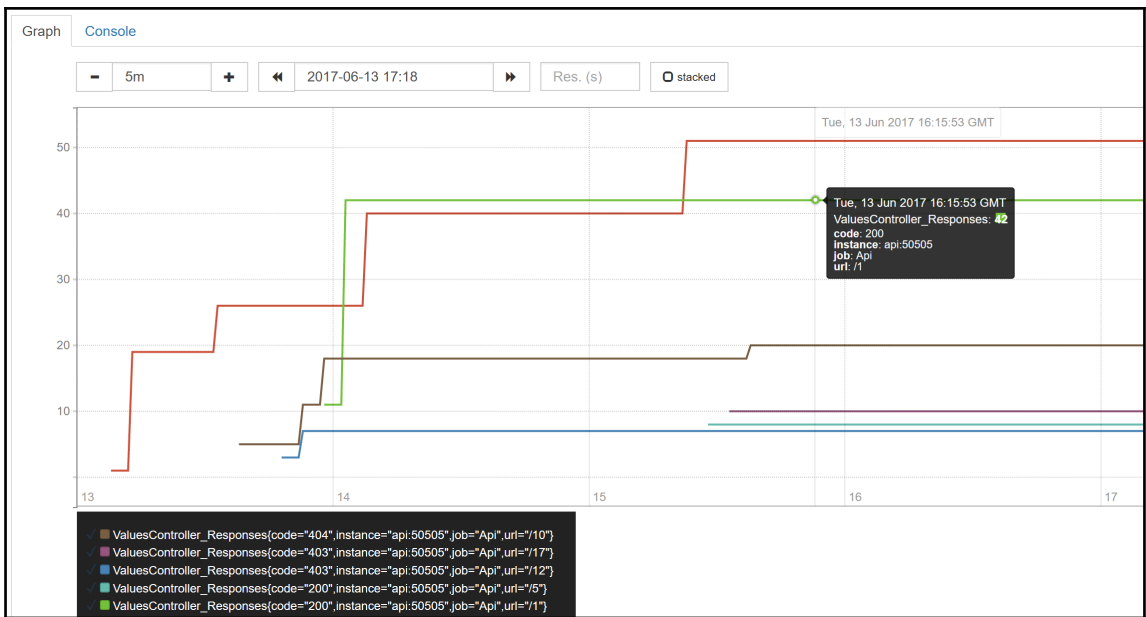


```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
```

```
Loaded 'C:\app\System.ComponentModel.Annotations.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just My Code' is enabled.
Loaded 'C:\packagecache\x64\microsoft.aspnetcore.http.extensions\1.1.2\lib\netstandard1.3\Microsoft.AspNetCore.Http.Extensions.dll'. Skipped loading symbols. Module is optimized and the debugger option 'Just My Code' is enabled.

Microsoft.AspNetCore.Hosting.Internal.WebHost:Information: Request starting HTTP/1.1 GET http://172.24.9.127/api/values/12

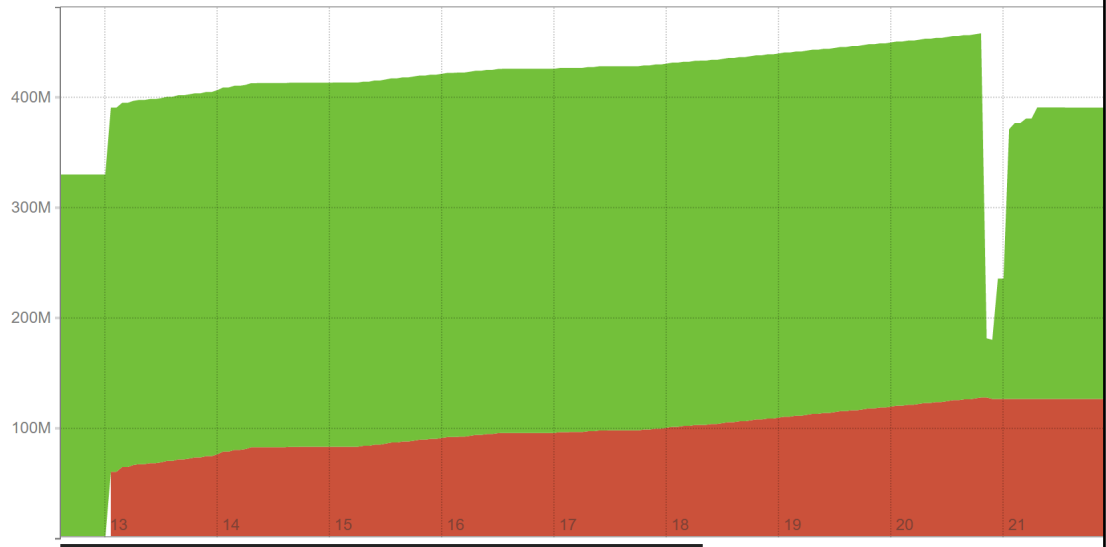
Microsoft.AspNetCore.Mvc.Internal.ControllerActionInvoker:Information: Executing action method WebApi.NetCore.Controllers.ValuesController.Get (WebApi.NetCore) with arguments (12) - ModelState is Valid
Microsoft.AspNetCore.Mvc.Internal.ObjectResultExecutor:Information: Executing ObjectResult, writing value Microsoft.AspNetCore.Mvc.ControllerContext.
Microsoft.AspNetCore.Mvc.Internal.ControllerActionInvoker:Information: Executed action WebApi.NetCore.Controllers.ValuesController.Get (WebApi.NetCore) in 8.2853ms
Microsoft.AspNetCore.Hosting.Internal.WebHost:Information: Request finished in 17.0881ms 200 text/plain; charset=utf-8
```

Graph

Console

- 15m| + |<< Until >>| Res. (s) | stacked



- process_working_set{instance="bonobo:50505",job="Bonobo",process="w3wp"}
- process_working_set{instance="api:50505",job="Api"}

Chapter 12: Containerize What You Know - Guidance for Implementing Docker

