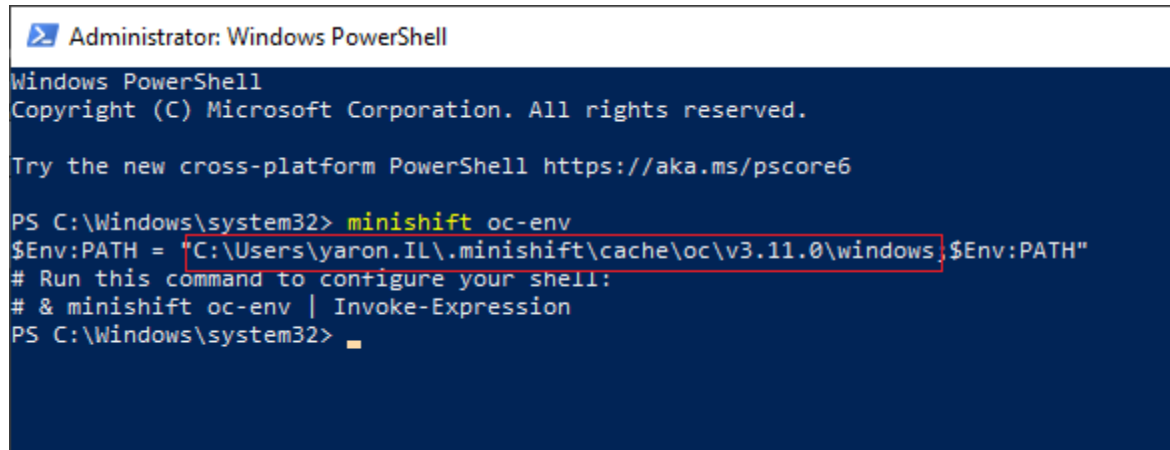


Login to OpenShift using oc

<https://docs.okd.io/3.11/minishift/openshift/openshift-client-binary.html>

Get the **oc.exe** (OpenShift Client tool) location and add its path to the paths in the environment variable:

minishift oc-env



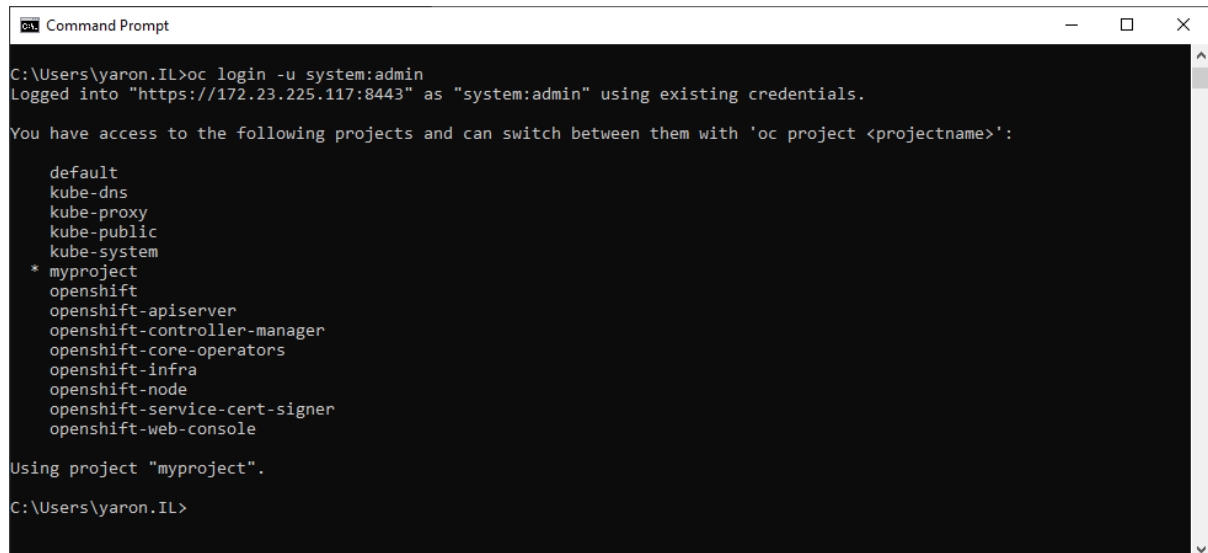
```
Administrator: Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Windows\system32> minishift oc-env
$Env:PATH = "C:\Users\yaron.IL\.minishift\cache\oc\v3.11.0\windows;$Env:PATH"
# Run this command to configure your shell:
# & minishift oc-env | Invoke-Expression
PS C:\Windows\system32>
```

oc config use-context minishift

oc login -u system:admin



```
Command Prompt
C:\Users\yaron.IL>oc login -u system:admin
Logged into "https://172.23.225.117:8443" as "system:admin" using existing credentials.

You have access to the following projects and can switch between them with 'oc project <projectname>':

  default
  kube-dns
  kube-proxy
  kube-public
  kube-system
  * myproject
  openshift
  openshift-apiserver
  openshift-controller-manager
  openshift-core-operators
  openshift-infra
  openshift-node
  openshift-service-cert-signer
  openshift-web-console

Using project "myproject".
C:\Users\yaron.IL>
```

oc config view

Accessing the Web Console:

minishift console --url

minishift console


Viewing OpenShift Logs

minishift logs

minishift openshift config view

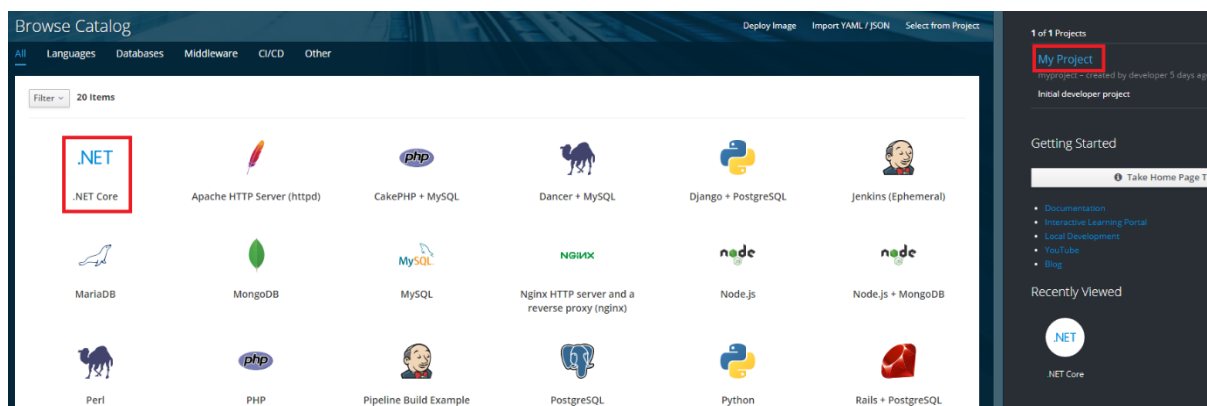
Login to OpenShift console

https://172.23.225.117:8443/login?then=%2Foauth%2Fauthorize%3Fclient_id%3Dopenshift-web-console%26response_type%3Dcode%26state%3DeyJ0aGVuljoiL2NhdGFsb2ciLCJub25jZSI6IjE2NDEyQDYwMTM5NDctMjg2ODkwOTQ5OTE1MTI4MTE2NjYzNzEzMzE0NTE5MjI3MzQ5MDM4ODQwMTk2MTQwMjMyMzAwNDIzMTM3MjI4MzI3OTUzMDMyNTgxNDE3OTcifQ%26redirect_uri%3Dhttps%252A%252F%252F172.23.225.117%252A8443%252Fconsole%252Foauth



The image shows the OpenShift login interface. It has a dark background. On the left, there are two input fields: 'Username' with the text 'developer' and 'Password' with masked characters '*****'. To the right of these fields is a blue 'Log In' button. In the top right corner, the text 'Welcome to OKD.' is displayed.

After login we get the browser catalog page and see the default project “My Project”



We see .NET (.NET Core) language but it supports by default only. netcore2.0

Add .NET 5.0 to catalog

https://access.redhat.com/documentation/en-us/net/5.0/html/getting_started_with_.net_on_rhel_8/using_net_5_0_on_openshift_container_platform

oc describe is dotnet | more

oc create -f https://raw.githubusercontent.com/redhat-developer/s2i-dotnetcore/master/dotnet_imagestreams.json

oc replace -f https://raw.githubusercontent.com/redhat-developer/s2i-dotnetcore/master/dotnet_imagestreams.json

```
Command Prompt
C:\Users\yaron.IL>oc replace -f https://raw.githubusercontent.com/redhat-developer/s2i-dotnetcore/master/dotnet_imagestreams.json
imagestream.image.openshift.io/dotnet replaced
imagestream.image.openshift.io/dotnet-runtime replaced
```

oc describe is dotnet | more

```
Command Prompt
C:\Users\yaron.IL>oc describe is dotnet | more
Name: dotnet
Namespace: myproject
Created: 18 hours ago
Labels: <none>
Annotations: openshift.io/display-name=.NET
Docker Pull Spec: 172.30.1.1:5000/myproject/dotnet
Image Lookup: local=false
Unique Images: 3
Tags: 8

6.0
tagged from registry.access.redhat.com/ubi8/dotnet-60:6.0
prefer registry pullthrough when referencing this tag

Build and run .NET 6 applications on UBI 8. For more information about
considerations, see https://github.com/redhat-developer/s2i-dotnetcore/
Tags: builder, .net, dotnet, dotnetcore, dotnet60, hidden
Supports: dotnet:6.0, dotnet
Example Repo: https://github.com/redhat-developer/s2i-dotnetcore-ex

* registry.access.redhat.com/ubi8/dotnet-60@sha256:46c89b5baa22641bc
18 hours ago

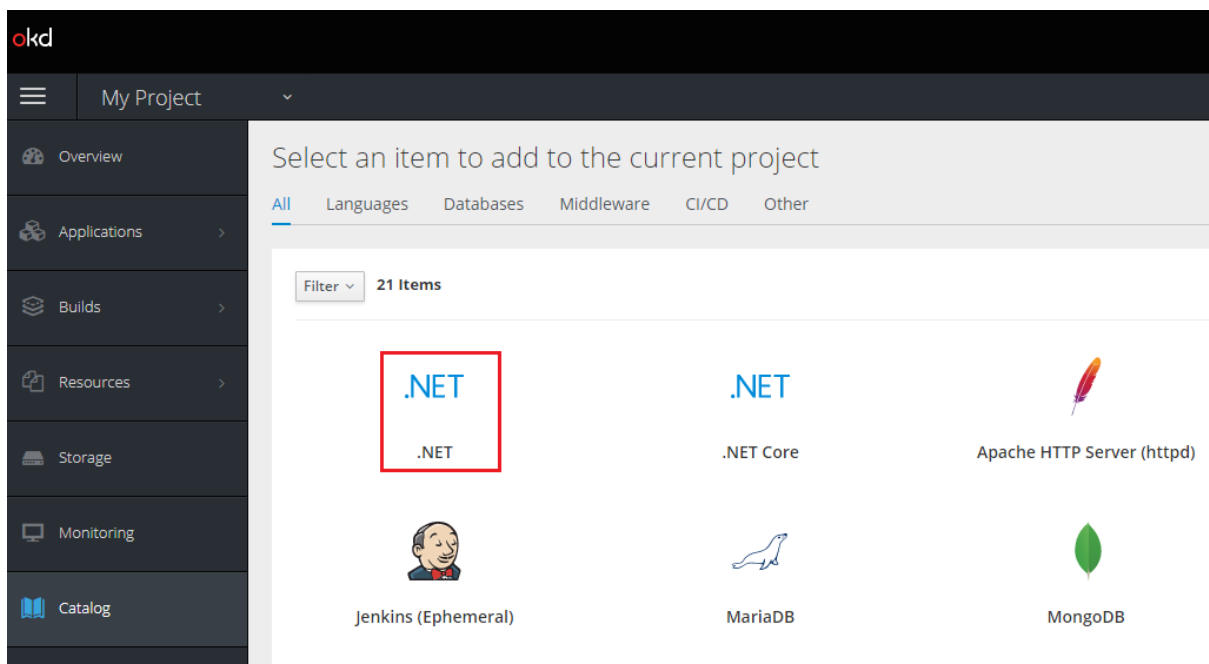
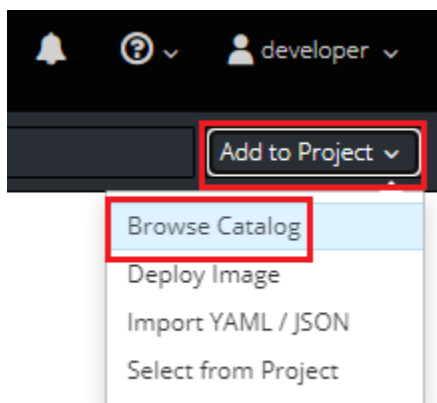
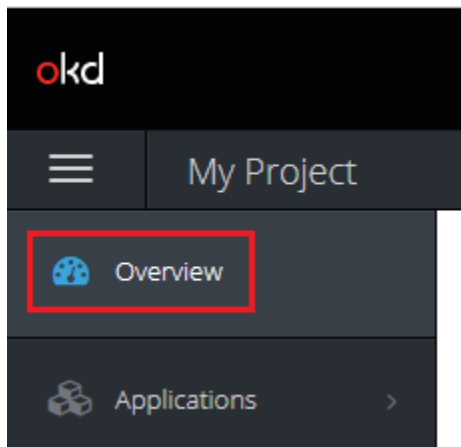
6.0-ubi8 (latest)
tagged from registry.access.redhat.com/ubi8/dotnet-60:6.0
prefer registry pullthrough when referencing this tag

Build and run .NET 6 applications on UBI 8. For more information about
considerations, see https://github.com/redhat-developer/s2i-dotnetcore/
Tags: builder, .net, dotnet, dotnetcore, dotnet60
Supports: dotnet:6.0, dotnet
Example Repo: https://github.com/redhat-developer/s2i-dotnetcore-ex

* registry.access.redhat.com/ubi8/dotnet-60@sha256:46c89b5baa22641bc
18 hours ago

5.0
tagged from registry.access.redhat.com/ubi8/dotnet-50:5.0
prefer registry pullthrough when referencing this tag
```

Deploy .NET5.0 WebAPI Microservice



.NET

Information

Configuration

Results

1

2

3

.NET

BUILDER .NET DOTNET DOTNETCORE RH-DOTNET31

Build and run .NET Core 3.1 applications on RHEL 7. For more information about using this builder image, including OpenShift considerations, see <https://github.com/redhat-developer/s2i-dotnetcore/tree/master/3.1/build/README.md>.

Sample Repository: <https://github.com/redhat-developer/s2i-dotnetcore-ex>

Cancel

< Back

Next >

.NET

Information

Configuration

Results

1

2

3

Version

3.1-el7

3.1-el7

3.1-ubi8

5.0-ubi8

6.0-ubi8 — latest

Try Sample Repository ↗

If you have a private Git repository or need to change application defaults, view [advanced options](#).

Cancel

< Back

Create

.NET

Information

Configuration

Results

1

2

3

Version

5.0-ubi8

* Application Name

exchange

* Git Repository

https://github.com/yaronzlotolov/WebApiNet5

[Try Sample Repository ↗](#)

If you have a private Git repository or need to change application defaults, view [advanced options](#).

Cancel

< Back

Create

.NET version: 5.0

Git repo: <https://github.com/yaronzlotolov/WebApiNet5>

Application name: exchange-rate

.NET

Information

Configuration

Results

1

2

3

Version

5.0-ubi8

* Application Name

exchange-rate

* Git Repository

https://github.com/yaronzlotolov/WebApiNet5

[Try Sample Repository ↗](#)

If you have a private Git repository or need to change application defaults, view [advanced options](#).

Cancel

< Back

Create

.NET



Information

Configuration

Results

1

2

3



exchange-rate has been created in **My Project** successfully.

[Continue to the project overview](#) to check the status of your application as it builds and deploys.

Cancel

< Back

Close

okd



My Project

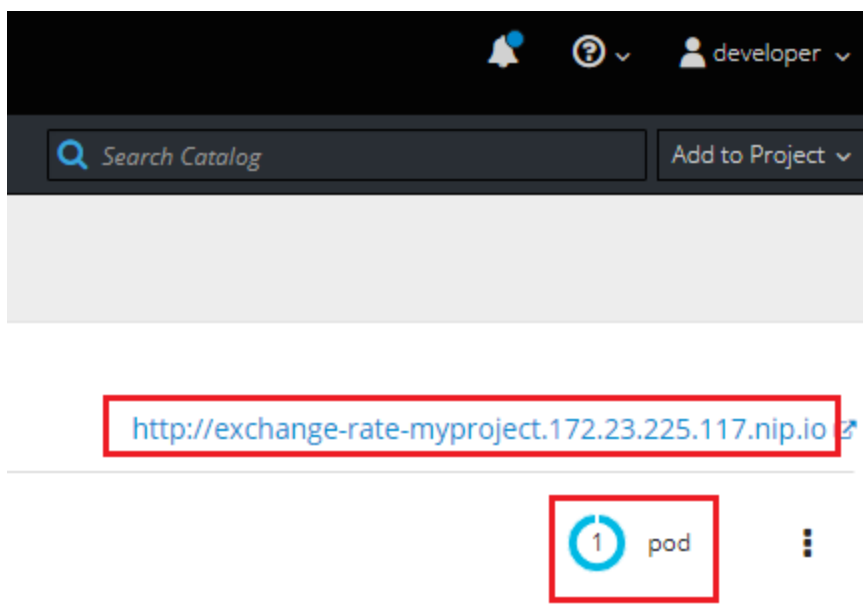
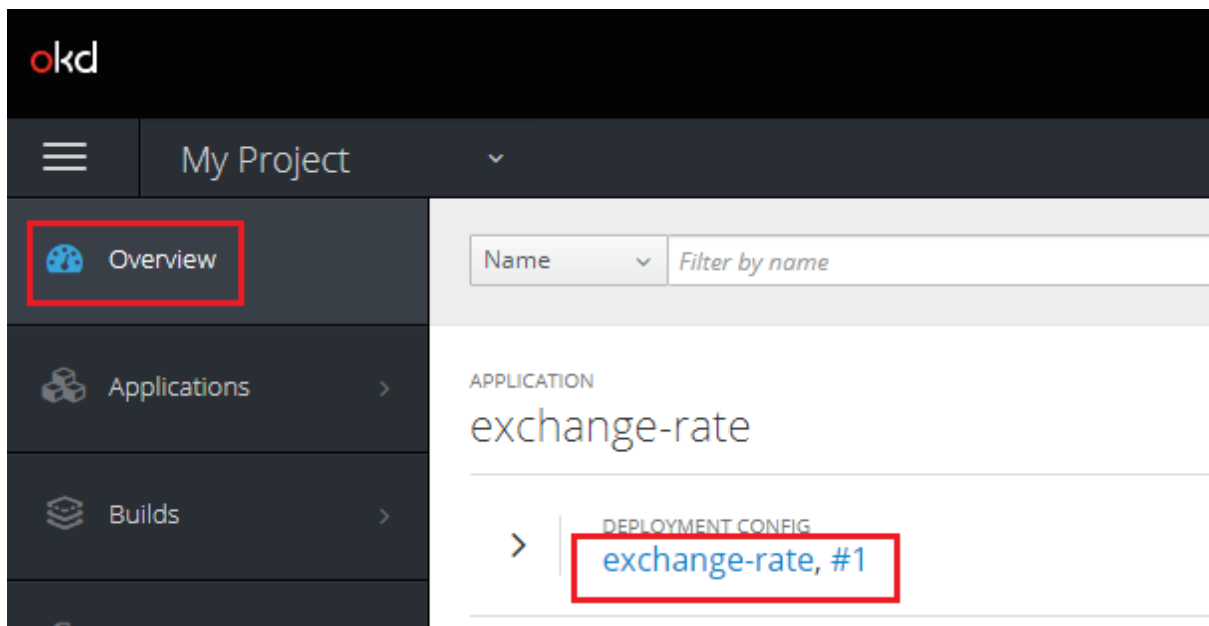


Overview



Applications





Name

Filter by name

APPLICATION

exchange-rate



DEPLOYMENT CONFIG

exchange-rate #1

exchange-rate-1 created 3 minutes ago

app exchange-rate openshift.io/deployment-config.name exchange-rate

Details Environment Logs Events

Status: Active
Deployment Config: exchange-rate
Status Reason: config change
Selectors: deployment=exchange-rate-1
deploymentconfig=exchange-rate
Replicas: 1 current / 1 desired



Template

Container exchange-rate does not have health checks to ensure your application is running correctly. [Add Health Checks](#)

Containers

exchange-rate

Image: myproject/exchange-rate 532ed72 293.3 MiB
Build: exchange-rate, #1
Source: former date in the controller 1e84ef8 authored by Yaron
Ports: 8080/TCP

Volumes

[Add Storage](#) | [Add Config Files](#)

Pods

Name	Status	Container
exchange-rate-1-s2kbb	Running	1/1

oc --help

oc get nodes

```
Command Prompt

C:\Users\yaron.IL>oc get nodes
NAME      STATUS    ROLES    AGE      VERSION
localhost Ready     <none>    5d       v1.11.0+d4cacc0

C:\Users\yaron.IL>
```

oc get pods

```
Command Prompt
C:\Users\yaron.IL>oc get pods
NAME                                READY    STATUS      RESTARTS   AGE
devopsccloud-1-build               0/1      Completed   0           4d
employee-1-build                   0/1      Init:Error   0           1h
employee-2-build                   0/1      Init:Error   0           1h
exchange-1-build                   0/1      Completed   0           17h
exchange-rate-1-build              0/1      Completed   0           17m
exchange-rate-1-s2kbb              1/1      Running     0           16m
C:\Users\yaron.IL>
```

oc get -o wide pods

```
Command Prompt
C:\Users\yaron.IL> oc get -o wide pods
NAME                                READY    STATUS      RESTARTS   AGE    IP            NODE      NOMINATED NODE
devopsccloud-1-build               0/1      Completed   0           4d     172.17.0.6    localhost <none>
employee-1-build                   0/1      Init:Error   0           1h     172.17.0.6    localhost <none>
employee-2-build                   0/1      Init:Error   0           1h     172.17.0.6    localhost <none>
exchange-1-build                   0/1      Completed   0           17h     172.17.0.6    localhost <none>
exchange-rate-1-build              0/1      Completed   0           21m     172.17.0.6    localhost <none>
exchange-rate-1-s2kbb              1/1      Running     0           20m     172.17.0.6    localhost <none>
C:\Users\yaron.IL>
```

oc describe pod exchange-rate-1-s2kbb

```
Command Prompt
C:\Users\yaron.IL>oc describe pod exchange-rate-1-s2kbb
Name: exchange-rate-1-s2kbb
Namespace: myproject
Priority: 0
PriorityClassName: <none>
Node: localhost/172.23.225.117
Start Time: Tue, 04 Jan 2022 11:07:12 +0200
Labels: app=exchange-rate
        deployment=exchange-rate-1
        deploymentconfig=exchange-rate
Annotations: openshift.io/deployment-config.latest-version=1
              openshift.io/deployment-config.name=exchange-rate
              openshift.io/deployment.name=exchange-rate-1
              openshift.io/scc=restricted
Status: Running
IP: 172.17.0.6
Controlled By: ReplicationController/exchange-rate-1
Containers:
  exchange-rate:
    Container ID: docker://cfd1d6c2abf3986ad0cb414cb8ebad6061cbd79a39ee65097c18687cb1315c3d
    Image: 172.30.1.1:5000/myproject/exchange-rate@sha256:532ed72d0b54954f265f8ad853f7470c47489d65ea9b40788e7350c6c434d725
    Image ID: docker-pullable://172.30.1.1:5000/myproject/exchange-rate@sha256:532ed72d0b54954f265f8ad853f7470c47489d65ea9b40788e7350c6c434d725
    Port: 8080/TCP
    Host Port: 0/TCP
    State: Running
      Started: Tue, 04 Jan 2022 11:07:13 +0200
    Ready: True
    Restart Count: 0
    Environment: <none>
    Mounts:
      /var/run/secrets/kubernetes.io/serviceaccount from default-token-2vw52 (ro)
Conditions:
  Type             Status
  Initialized       True
  Ready             True
  ContainersReady   True
  PodScheduled      True
Volumes:
  default-token-2vw52:
    Type: Secret (a volume populated by a Secret)
    SecretName: default-token-2vw52
    Optional: false
QoS Class: BestEffort
Node-Selectors: <none>
Tolerations: <none>
Events:
  Type    Reason      Age    From          Message
  ----    -
  Normal  Scheduled   42m    default-scheduler  Successfully assigned myproject/exchange-rate-1-s2kbb to localhost
  Normal  Pulling     42m    kubelet, localhost  pulling image "172.30.1.1:5000/myproject/exchange-rate@sha256:532ed72d0b54954f265f8ad853f7470c47489d65ea9b40788e7350c6c434d725"
  Normal  Pulled      42m    kubelet, localhost  Successfully pulled image "172.30.1.1:5000/myproject/exchange-rate@sha256:532ed72d0b54954f265f8ad853f7470c47489d65ea9b40788e7350c6c434d725"
  Normal  Created     42m    kubelet, localhost  Created container
  Normal  Started     42m    kubelet, localhost  Started container
C:\Users\yaron.IL>
```

oc get svc

```
Command Prompt

C:\Users\yaron.IL>oc get svc
NAME                TYPE          CLUSTER-IP      EXTERNAL-IP      PORT(S)          AGE
devopscloud         ClusterIP      172.30.19.145    <none>           8080/TCP         4d
employee            ClusterIP      172.30.244.234    <none>           8080/TCP         2h
exchange            ClusterIP      172.30.43.91     <none>           8080/TCP         18h
exchange-rate       ClusterIP      172.30.120.17    <none>           8080/TCP         45m

C:\Users\yaron.IL>
```

oc get routes

```
Command Prompt

C:\Users\yaron.IL>oc get routes
NAME                HOST/PORT          PATH              SERVICES          PORT          TERMINATION      WILDCARD
devopscloud         devopscloud-myproject.172.23.225.117.nip.io  devopscloud      8080-tcp         None
employee            employee-myproject.172.23.225.117.nip.io      employee         8080-tcp         None
exchange            exchange-myproject.172.23.225.117.nip.io      exchange         8080-tcp         None
exchange-rate       exchange-rate-myproject.172.23.225.117.nip.io exchange-rate     8080-tcp         None

C:\Users\yaron.IL>
```

oc get images | more

```
Command Prompt

sha256:4ebc0868f577121f0bc9c5265a8508d58e407c553099ff8f45b19b07a51a92  docker.io/centos/mongodb-34-centos7@sha256:4ebc0868f57
7121f0bc9c5265a8508d58e407c553099ff8f45b19b07a51a92
sha256:532ed72d0b54954f265f8ad853f7470c47489d65ea9b40788e7350c6c434d725  172.30.1.1:5000/myproject/exchange-rate@sha256:532ed72
d0b54954f265f8ad853f7470c47489d65ea9b40788e7350c6c434d725
sha256:5828134f4b215ab02ccc832a5f17f06c5b5d8c71c11f138cd7461e3f246b1929  docker.io/openshift/wildfly-110-centos7@sha256:5828134
f4b215ab02ccc832a5f17f06c5b5d8c71c11f138cd7461e3f246b1929
sha256:60a97b31cf67e651fe98bed69ed86d56e3175a125488b978f681930940bb98ce  docker.io/centos/mongodb-26-centos7@sha256:60a97b31cf6
7e651fe98bed69ed86d56e3175a125488b978f681930940bb98ce
sha256:73b9d5578eac447606e708a635bc0661755866162673a4c6e6d1119248d3c2c8  docker.io/openshift/wildfly-130-centos7@sha256:73b9d55
```

oc get imagestream

```
Command Prompt

C:\Users\yaron.IL>oc get imagestream
NAME                DOCKER_REPO          TAGS              UPDATED
devopscloud         172.30.1.1:5000/myproject/devopscloud      latest           4 days ago
dotnet               172.30.1.1:5000/myproject/dotnet            6.0-ubi8,latest,3.1-ubi8 + 5 more... 19 hours ago
dotnet-runtime       172.30.1.1:5000/myproject/dotnet-runtime    3.1-ubi8,5.0,5.0-ubi8 + 5 more... 19 hours ago
employee            172.30.1.1:5000/myproject/employee          latest           18 hours ago
exchange            172.30.1.1:5000/myproject/exchange          latest           About an hour ago
exchange-rate       172.30.1.1:5000/myproject/exchange-rate     latest           About an hour ago

C:\Users\yaron.IL>
```

oc get builds

```
Command Prompt

C:\Users\yaron.IL>oc get builds
NAME                TYPE          FROM              STATUS              STARTED              DURATION
devopscloud-1       Source        Git@72f17c2       Complete            4 days ago          51s
exchange-1          Source        Git@1e84ef8       Complete            18 hours ago        1m38s
employee-1          Source        Git@master        Failed (FetchSourceFailed) 2 hours ago         57s
employee-2          Source        Git@master        Failed (FetchSourceFailed) 2 hours ago         45s
exchange-rate-1     Source        Git@1e84ef8       Complete            About an hour ago   22s

C:\Users\yaron.IL>
```

oc get replicationcontroller



```
Command Prompt
C:\Users\yaron.IL>oc get replicationcontroller
NAME          DESIRED  CURRENT  READY  AGE
exchange-rate-1  1        1        1      54m
C:\Users\yaron.IL>
```

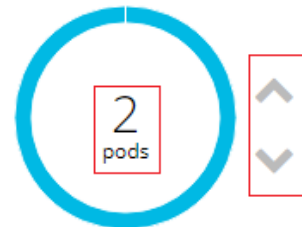
Scale-up 2 pods

exchange-rate-1 created an hour ago

app exchange-rate openshift.io/deployment-config.name exchange-rate



Details Environment Logs Events

Status:  Active
Deployment Config: [exchange-rate](#)
Status Reason: config change
Selectors: deployment=exchange-rate-1
deploymentconfig=exchange-rate
Replicas: 2 current / 2 desired 



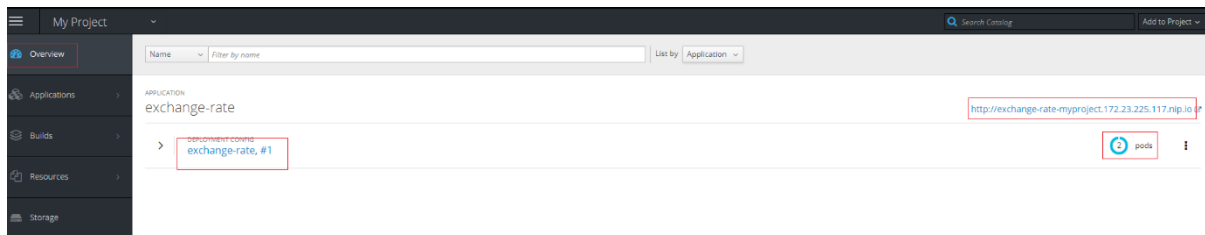
Template

Pods

Name	Status	Containers Ready
exchange-rate-1-hr65h	 Running	1/1
exchange-rate-1-s2kkb	 Running	1/1

```
Command Prompt
C:\Users\yaron.IL>oc get replicationcontroller
NAME          DESIRED  CURRENT  READY  AGE
exchange-rate-1  2        2        2      57m
C:\Users\yaron.IL>
```

```
Command Prompt
C:\Users\yaron.IL>oc get pods
NAME          READY  STATUS    RESTARTS  AGE
devopscld-1-build  0/1    Completed  0         4d
employee-1-build  0/1    Init:Error  0         2h
employee-2-build  0/1    Init:Error  0         2h
exchange-1-build  0/1    Completed  0         18h
exchange-rate-1-build  0/1    Completed  0         1h
exchange-rate-1-hr65h  1/1    Running    0         3m
exchange-rate-1-s2kkb  1/1    Running    0         59m
```



<http://exchange-rate-myproject.172.23.225.117.nip.io>

2 pods

<http://exchange-rate-myproject.172.23.225.117.nip.io/ExchangeRate/USD/ILS>

<http://exchange-rate-myproject.172.23.225.117.nip.io/ExchangeRate/EUR/ILS>

