

Version :

```
Windows PowerShell
PS C:\Users\LEGION> oc version
Client Version: 4.12.0-202303081116.p0.g846602e.assembly.stream-846602e
Kustomize Version: v4.5.7
Server Version: 4.12.9
Kubernetes Version: v1.25.7+eab9cc9
PS C:\Users\LEGION>
```

Token generation and Login in CLI :

Command Line Tools - Red Hat OpenShift | https://oauth-openshift.apps.sandbox-m2.119k.p1.openshiftapps.com/oauth/token/display | Google Maps | stanza living - Google Search | +

← → ↻ 🏠 🔍 Search | oauth-openshift.apps.sandbox-m2.119k.p1.openshiftapps.com/oauth/token/display | 📍 🌐 ⚙️ 🗑️ 👤

Maps | GeeksforGeeks | Udemy | Medium | GitHub | gitignore.io - Create... | sushmithakongi/CDA... | +Add - Red Hat Open...

Your API token is

sha256~hTML0BN09M00tth2Z2-ucUZ6EoKHHrVq3gH_cekJ-Ic

Log in with this token

```
oc login --token=sha256~hTML0BN09M00tth2Z2-ucUZ6EoKHHrVq3gH_cekJ-Ic --server=https://api.sandbox-m2.119k.p1.openshiftapps.com:6443
```

Use this token directly against the API

```
curl -H "Authorization: Bearer sha256~hTML0BN09M00tth2Z2-ucUZ6EoKHHrVq3gH_cekJ-Ic"
"https://api.sandbox-m2.119k.p1.openshiftapps.com:6443/apis/user.openshift.io/v1/users/~"
```

[Request another token](#)

31°C Sunny | Search | ENG IN | 12:43 04-05-2023

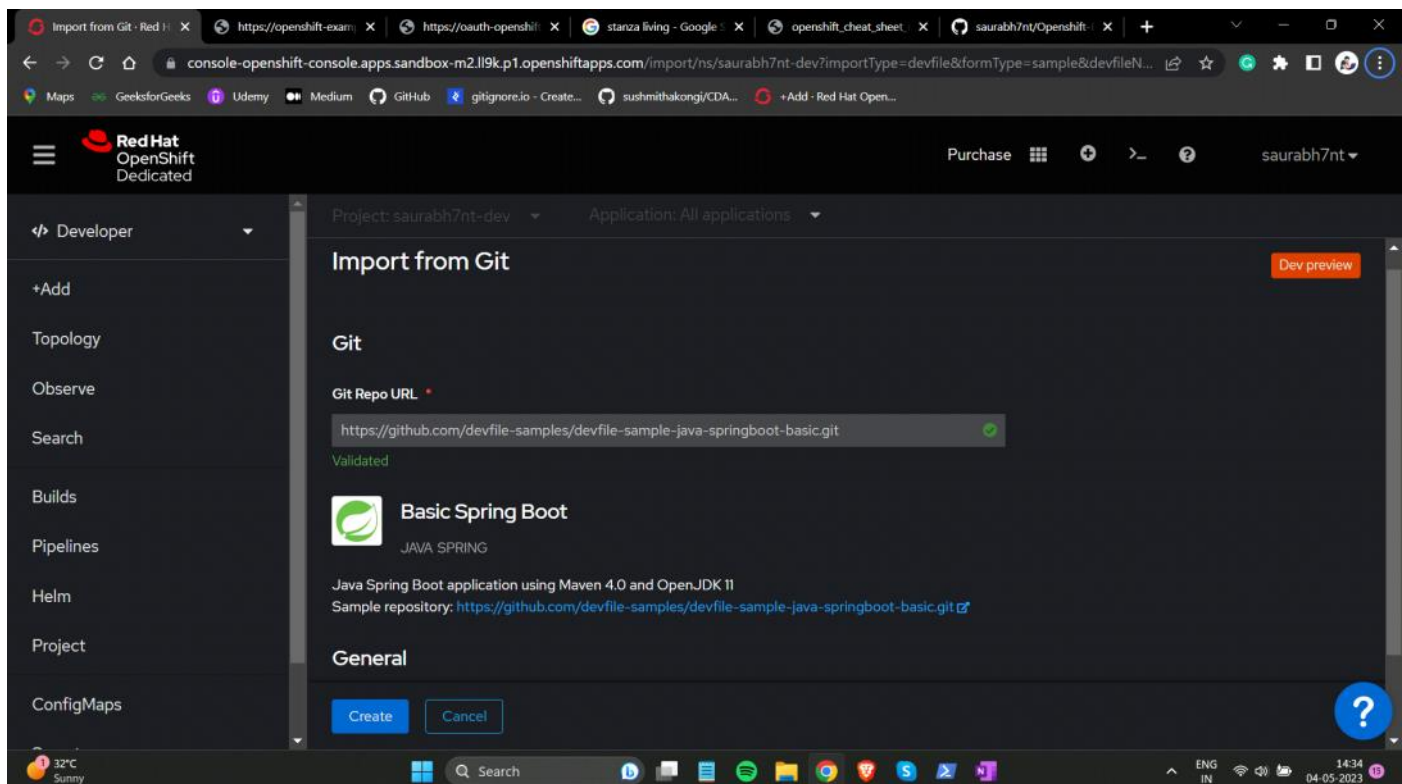
```
Windows PowerShell
PS C:\Users\LEGION> oc login --token=sha256~hTML0BN09M00tth2Z2-ucUZ6EoKHHrVq3gH_cekJ-Ic --server=https://api.sandbox-m2.119k.p1.openshiftapps.com:6443
Logged into "https://api.sandbox-m2.119k.p1.openshiftapps.com:6443" as "saurabh7nt" using the token provided.

You have one project on this server: "saurabh7nt-dev"

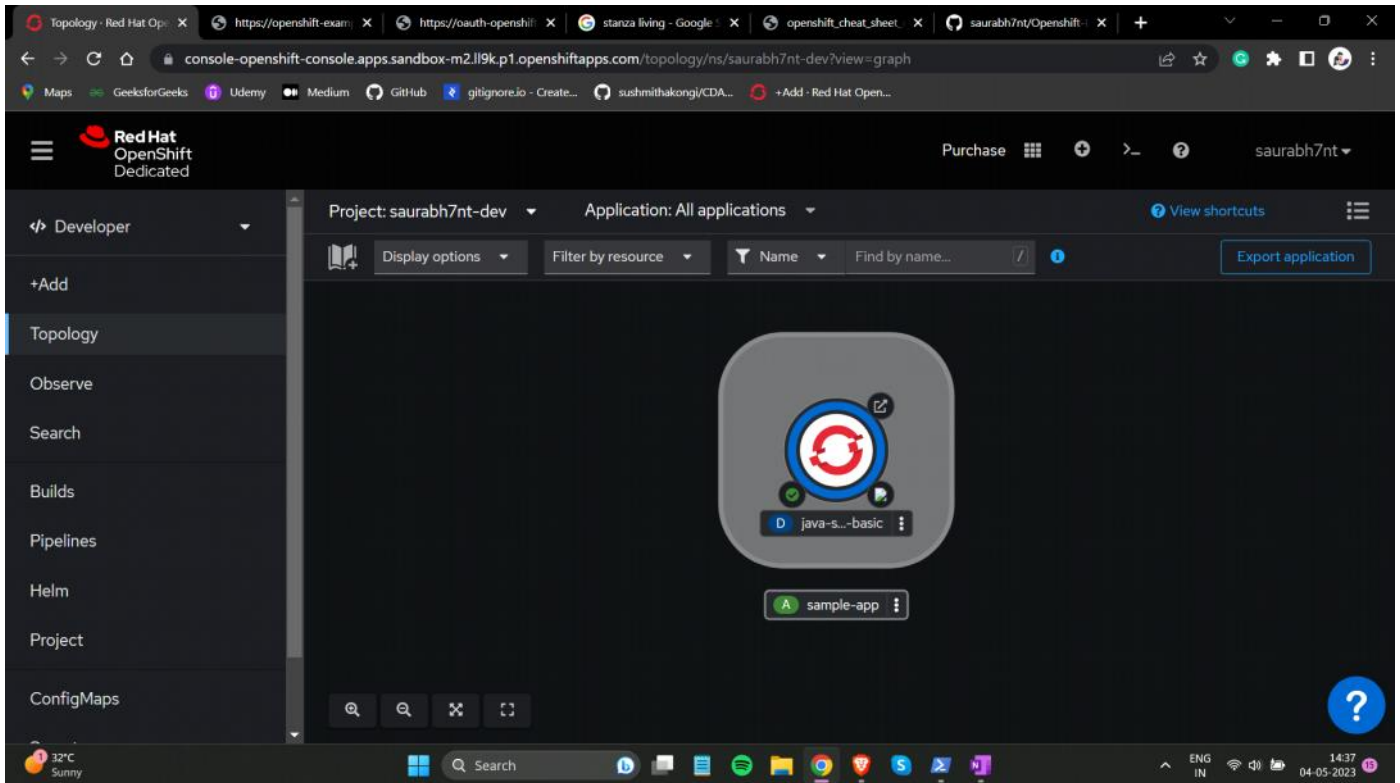
Using project "saurabh7nt-dev".
PS C:\Users\LEGION>
```

Scaling up an application by using openshift :

1. Pulling a spring sample code from github repository:



2. Build Complete



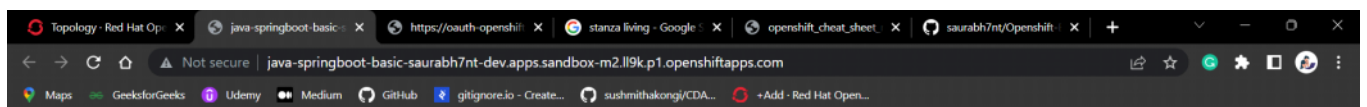
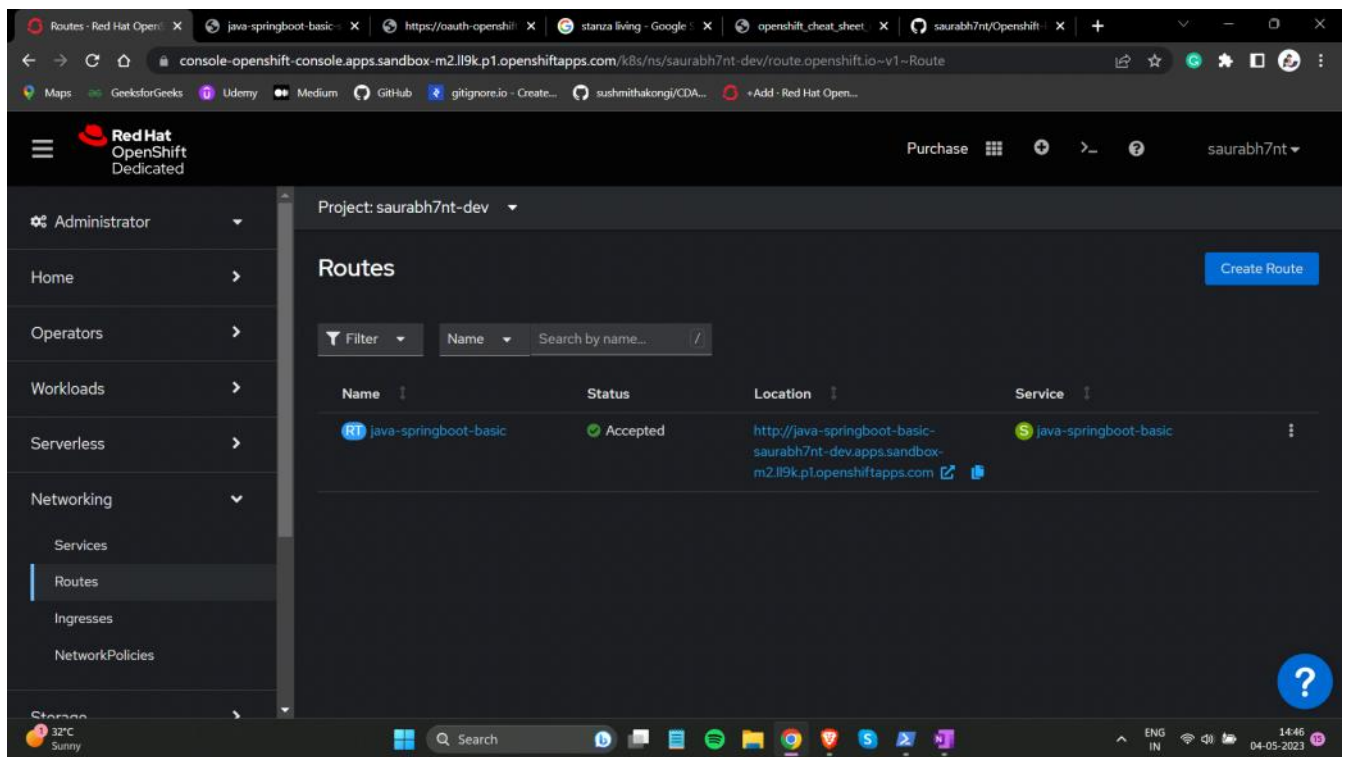
3. Getting the application information on CLI :

```

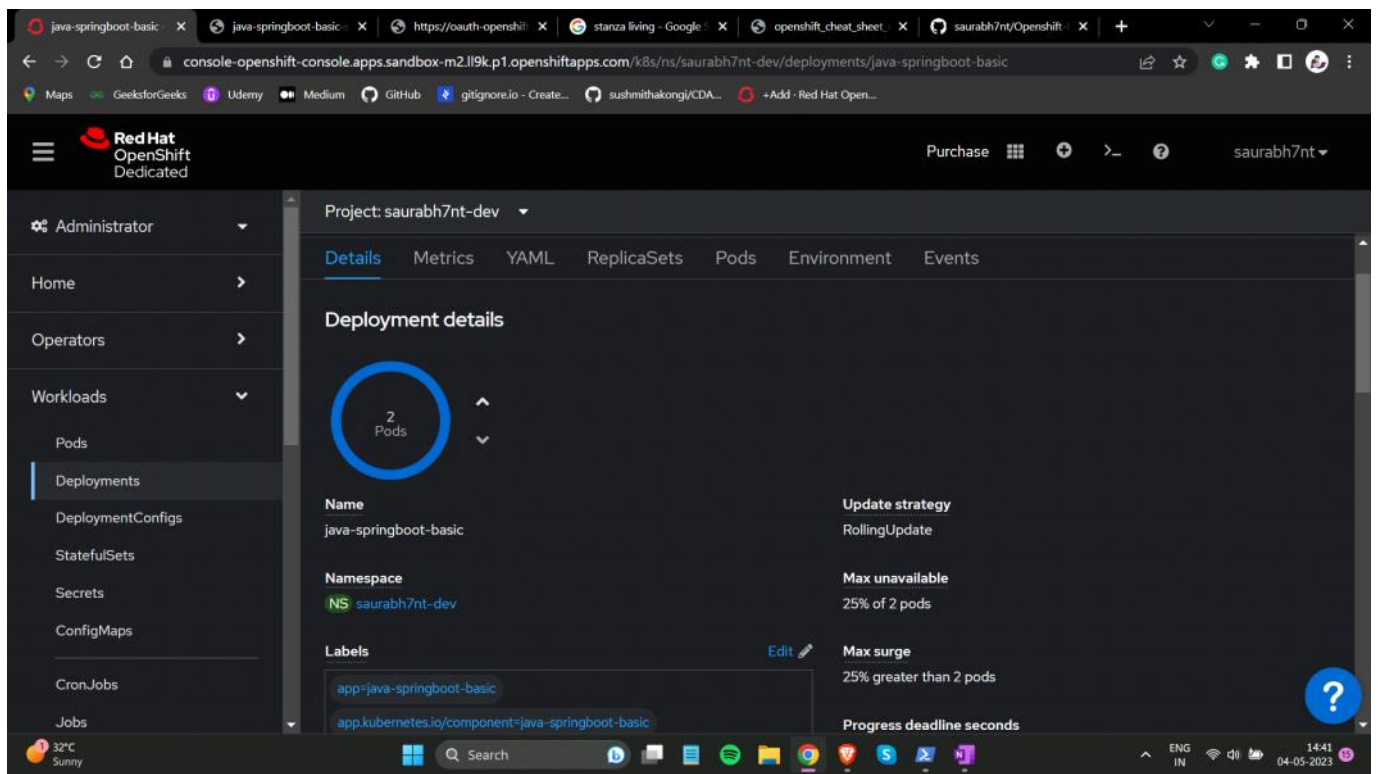
PS C:\Users\LEGION> oc get project
NAME          DISPLAY NAME  STATUS
saurabh7nt-dev saurabh7nt-dev Active
PS C:\Users\LEGION> oc project
Using project "saurabh7nt-dev" on server "https://api.sandbox-m2.119k.p1.openshiftapps.com:6443".
PS C:\Users\LEGION> oc get pods
NAME                                READY   STATUS    RESTARTS   AGE
java-springboot-basic-1-build       0/1     Completed 0           3m29s
java-springboot-basic-b7f75cf48-mg6n8 1/1     Running   0           98s
PS C:\Users\LEGION> oc get deployments
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
java-springboot-basic 1/1     1            1           3m41s
PS C:\Users\LEGION> oc get rs
NAME                                DESIRED   CURRENT   READY   AGE
java-springboot-basic-b7f75cf48     1         1         1       117s
java-springboot-basic-d86bc7c77     0         0         0       3m47s
PS C:\Users\LEGION>

```

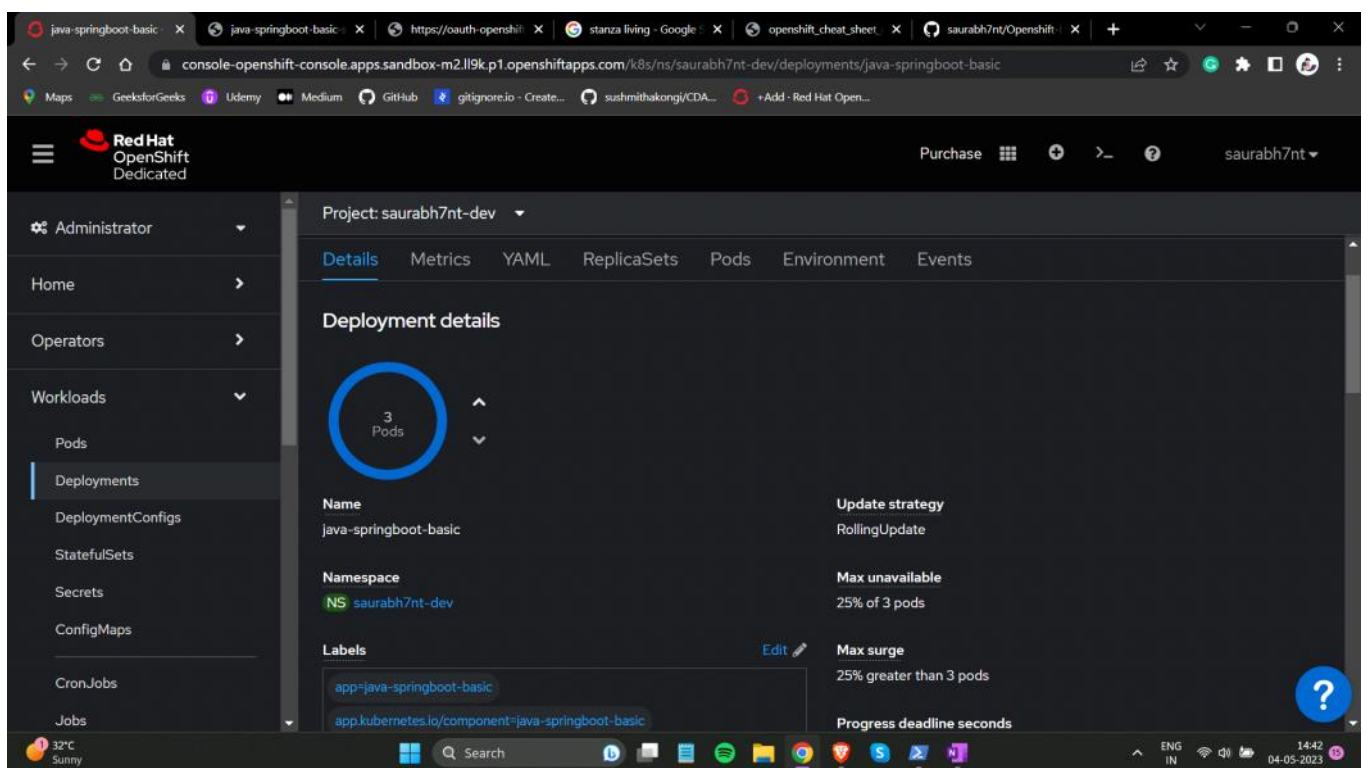
4. Now I can access the spring app using routes :



5. Scaling up the pod count :



6. Increasing it further to 3 :



```
Windows PowerShell
PS C:\Users\LEGION> oc get rs
NAME                                DESIRED   CURRENT   READY   AGE
java-springboot-basic-b7f75cf48    2         2         2       5m30s
java-springboot-basic-d86bc7c77    0         0         0       7m20s
PS C:\Users\LEGION> oc get rs
NAME                                DESIRED   CURRENT   READY   AGE
java-springboot-basic-b7f75cf48    3         3         3       6m24s
java-springboot-basic-d86bc7c77    0         0         0       8m14s
PS C:\Users\LEGION>
```

7. Pods Details :

Pods · Red Hat OpenShift

console-openshift-console.apps.sandbox-m2.ll9k.p1.openshiftapps.com/k8s/ns/saurabh7nt-dev/core-v1~Pod

Red Hat OpenShift Dedicated

Project: saurabh7nt-dev

Pod Name	Status	Replicas	Ready	Age	Resources
java-springboot-basic-l-build	Completed	0/1	0	May 4, 2023, 2:34 PM	
java-springboot-basic-b7f75cf48-c6qqm	Running	1/1	0	May 4, 2023, 2:42 PM	95.5 MiB
java-springboot-basic-b7f75cf48-j7shb	Running	1/1	0	May 4, 2023, 2:40 PM	97.7 MiB, 0.004 cores
java-springboot-basic-b7f75cf48-mg6n8	Running	1/1	0	May 4, 2023, 2:36 PM	101.4 MiB, 0.005 cores

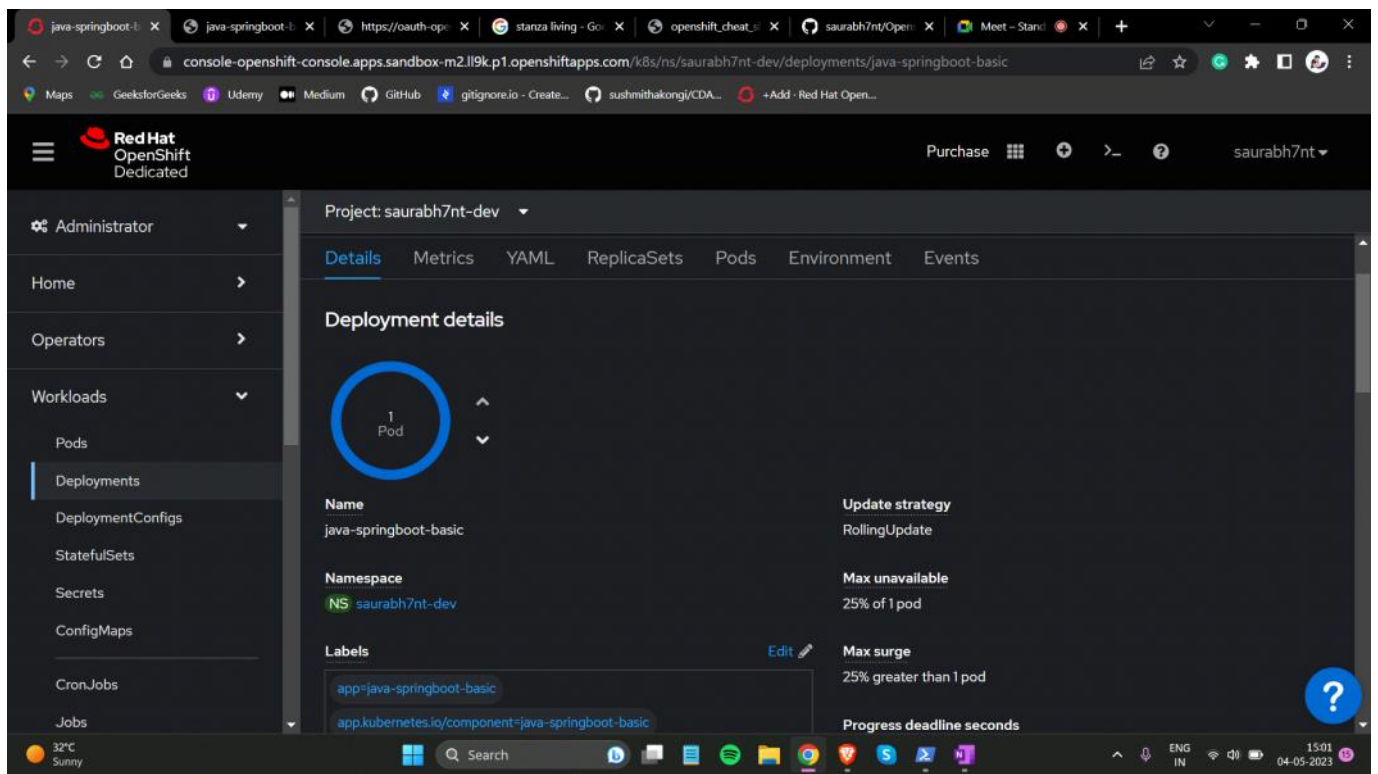

```
Windows PowerShell
PS C:\Users\LEGION> oc get rs
NAME                                DESIRED   CURRENT   READY   AGE
java-springboot-basic-b7f75cf48     2         2         2       5m30s
java-springboot-basic-d86bc7c77     0         0         0       7m20s
PS C:\Users\LEGION> oc get rs
NAME                                DESIRED   CURRENT   READY   AGE
java-springboot-basic-b7f75cf48     3         3         3       6m24s
java-springboot-basic-d86bc7c77     0         0         0       8m14s
PS C:\Users\LEGION> oc get pods
NAME                                READY     STATUS    RESTARTS   AGE
java-springboot-basic-1-build        0/1       Completed 0           9m14s
java-springboot-basic-b7f75cf48-c6qqm 1/1       Running   0          105s
java-springboot-basic-b7f75cf48-j7shb 1/1       Running   0          3m15s
java-springboot-basic-b7f75cf48-mg6n8 1/1       Running   0          7m23s
PS C:\Users\LEGION>
```

8. Application Self-healing :

- After successfully deleting a pod, RS will detect that one pod is less so in order to match the number of pods in a RS after deleting a pod one new pod will also get created but with different name.

```
Windows PowerShell
PS C:\Users\LEGION> oc get pods
NAME                                READY     STATUS    RESTARTS   AGE
java-springboot-basic-1-build        0/1       Completed 0           19m
java-springboot-basic-b7f75cf48-c6qqm 1/1       Running   0           11m
java-springboot-basic-b7f75cf48-j7shb 1/1       Running   0           13m
java-springboot-basic-b7f75cf48-mg6n8 1/1       Running   0           17m
PS C:\Users\LEGION> oc delete pod java-springboot-basic-b7f75cf48-mg6n8
pod "java-springboot-basic-b7f75cf48-mg6n8" deleted
PS C:\Users\LEGION> oc get pods
NAME                                READY     STATUS    RESTARTS   AGE
java-springboot-basic-1-build        0/1       Completed 0           19m
java-springboot-basic-b7f75cf48-c6qqm 1/1       Running   0           12m
java-springboot-basic-b7f75cf48-d6dn2 0/1       ContainerCreating 0           6s
java-springboot-basic-b7f75cf48-j7shb 1/1       Running   0           13m
PS C:\Users\LEGION> oc get pods
NAME                                READY     STATUS    RESTARTS   AGE
java-springboot-basic-1-build        0/1       Completed 0           25m
java-springboot-basic-b7f75cf48-c6qqm 1/1       Running   0           17m
java-springboot-basic-b7f75cf48-d6dn2 1/1       Running   0           5m35s
java-springboot-basic-b7f75cf48-j7shb 1/1       Running   0           19m
PS C:\Users\LEGION>
```

9. Scaling down to 1 pod :



10.