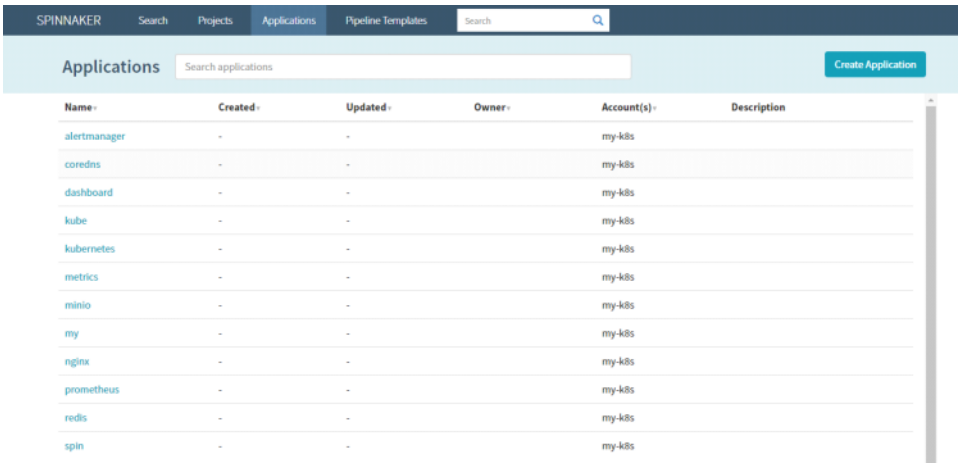
Spinnaker- Deployment

29 January 2021 10:20

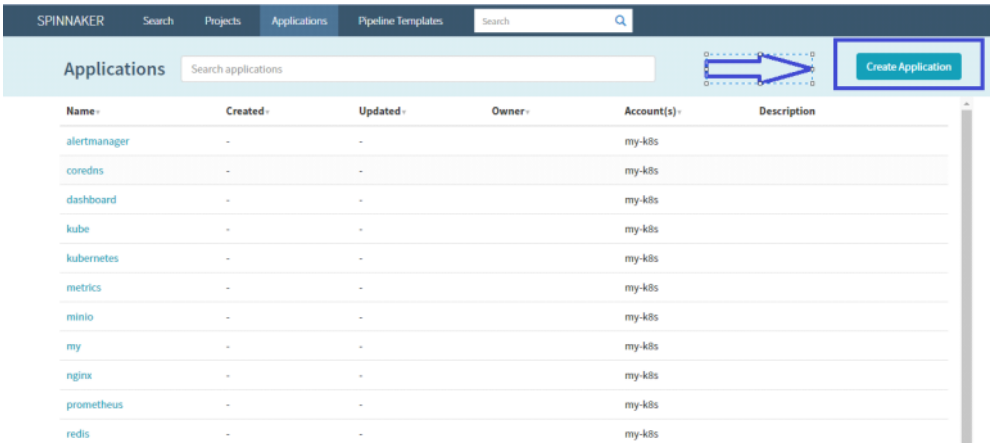
Setup Pipeline:

Firstly View Existing Applications in Cluster

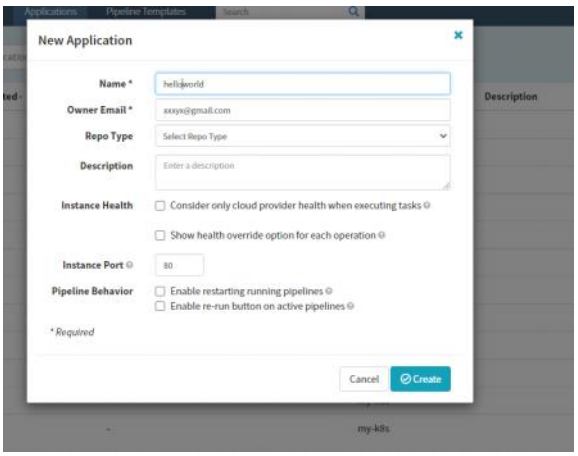


Create New Application

Click on Create Application button on left side



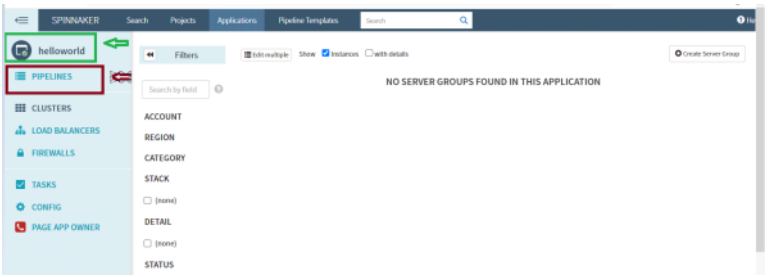
Put name of new application and email id. I used "helloworld" name for new application and click on create button



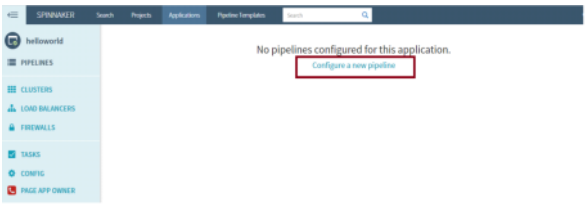
1. **Create Pipeline:**

Application is created . Now we need to setup pipeline.

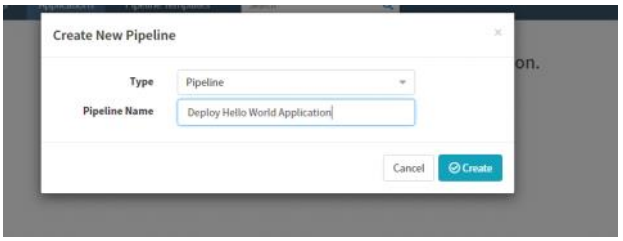
After creation of pipeline, you must be inside helloworld application. Click on **Pipeline** button on left side.



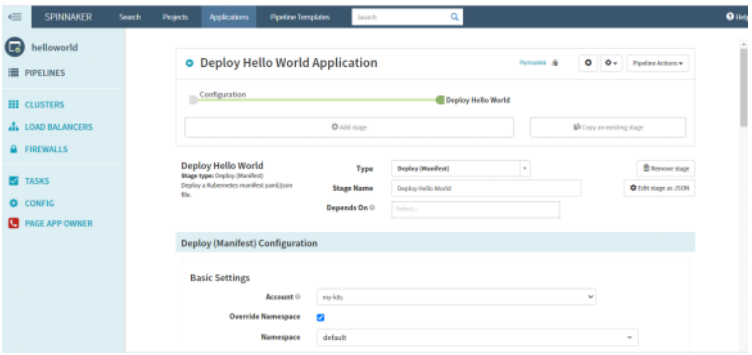
Click on **Configure a new pipeline**.



Inset pipeline name. As a **Pipeline Name** "Deploy Hello World Application" and click on **Create** button



On the next page, click the **Add Stage** button. As the **Type**, select **Deploy (Manifest)**, which is used for deploying Kubernetes manifests you specify. For the **Stage Name**, type in Deploy Hello World. Scroll down, and in the textbox under **Manifest Configuration**, enter the following lines:

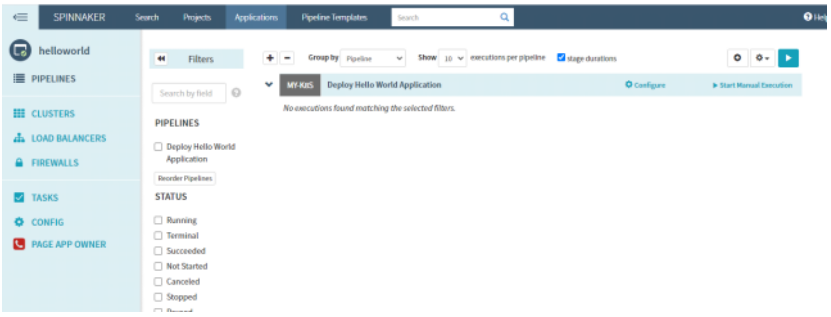


Configuration YAML file as below

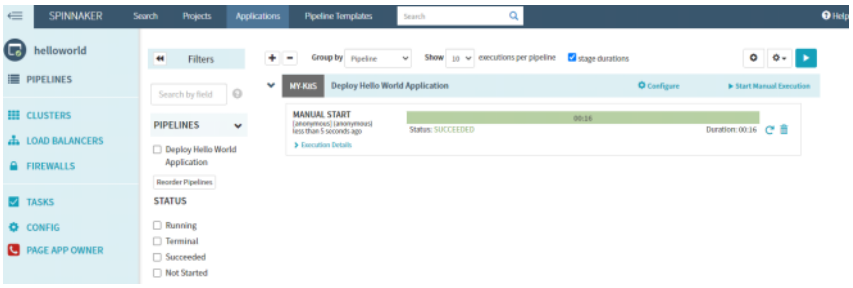
```
apiVersion: apps/v1
kind: Deployment
metadata:
  labels:
    run: nginx
  name: helloworld
spec:
  replicas: 2
  selector:
```

```
    matchLabels:
      run: nginx
  template:
    metadata:
      labels:
        run: nginx
    spec:
      containers:
        - image: nginx
          name: helloworld
```

Press **Save Changes** in the bottom right corner of the screen. When it finishes, navigate back to **Pipelines**. On the right side, select the pipeline you just created and press the **Start Manual Execution** link. When asked to confirm, press **Run**.



This pipeline will take a short time to complete. You will see the progress bar complete when it has successfully finished.



Verify on Cluster that Hello world deployment, replicaset and pods are created

```
[root@master ~]# kubectl get all |grep -i hello
pod/helloworld-5c9b557fb6-62r6r   1/1     Running   0          63s
pod/helloworld-5c9b557fb6-nxdvk   1/1     Running   0          63s
deployment.apps/helloworld   2/2     2            2           63s
replicaset.apps/helloworld-5c9b557fb6   2         2         2       63s
```

2. **Create Second Pipeline:**

Objective : **Create new pipeline of other application and it will be triggered when Hello world pipeline will be execute.**

Pre-requisites:

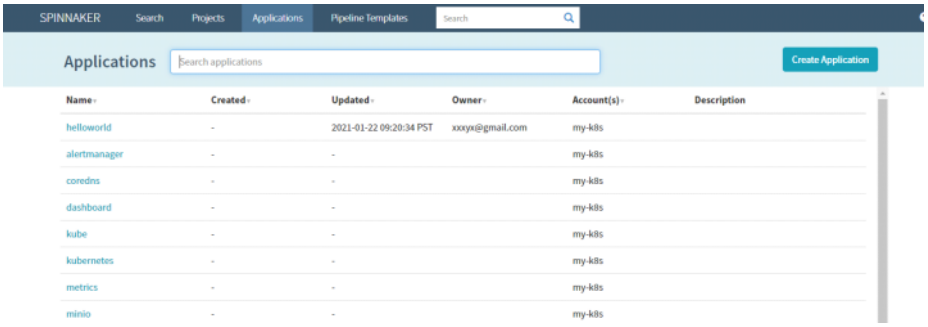
In our cluster, there is one application is already running named "my-nginx" with 2 replicas

```
# $ kubectl  create deploy my-nginx --image nginx --replicas 2
```

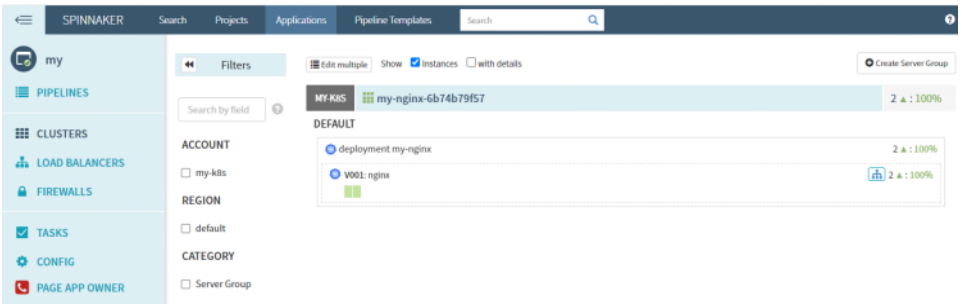
Notice that we have two pods and we are setting up pipeline to scale it with 5 pods

```
[root@master ~]# kubectl get all |grep my-nginx
pod/my-nginx-6b74b79f57-h4dxk     1/1     Running   0          6d9h
pod/my-nginx-6b74b79f57-qkcjx     1/1     Running   0          6d9h
service/my-nginx     NodePort    10.98.123.92    <none>        80:32135/TCP   6d9h
deployment.apps/my-nginx     2/2     2            2           6d9h
replicaset.apps/my-nginx-6b74b79f57     2         2         2       6d9h
```

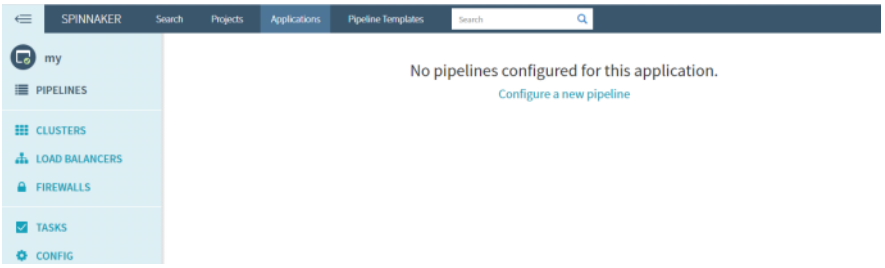
Also check in Application by clicking **Applications** tab



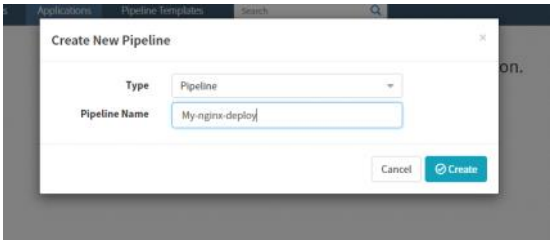
Go to **Applications** tab and select application named "**my**"



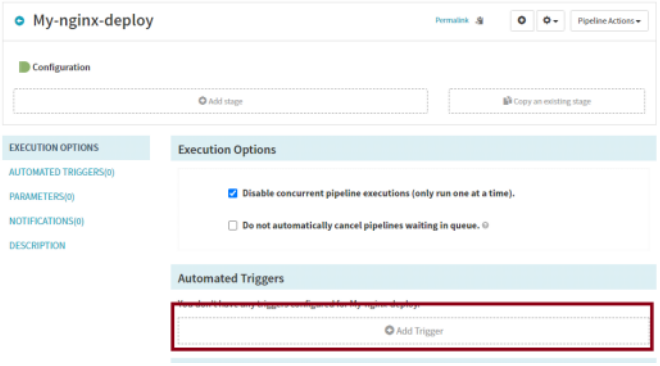
Click on **PIPELINES** in "my" application



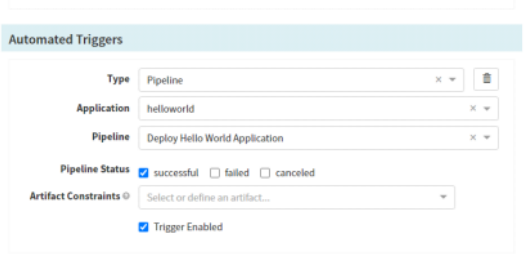
Insert **Pipeline Name** as My-nginx-deploy and click on **Create** button



Click on **Add Trigge**r

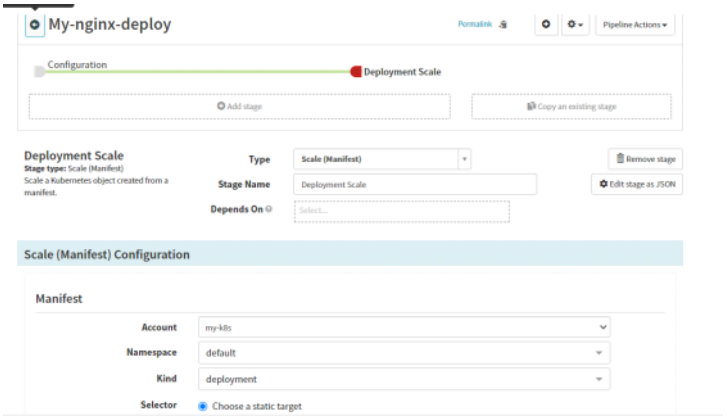


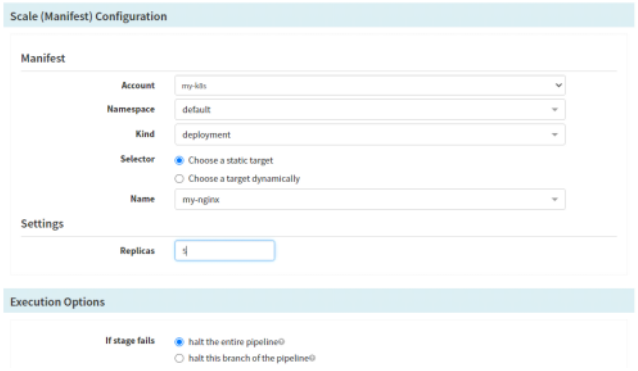
Configure Trigger that it will listen another pipeline and trigger it when that pipline will complete
Select **Type** as Pipeline, **Application** as helloworld and **Pipeline** as Deploy Hello World Application. Click on save changes



Click on Add stage button. Inset values are below and save changes

This pipeline will scale exist deployment by 5

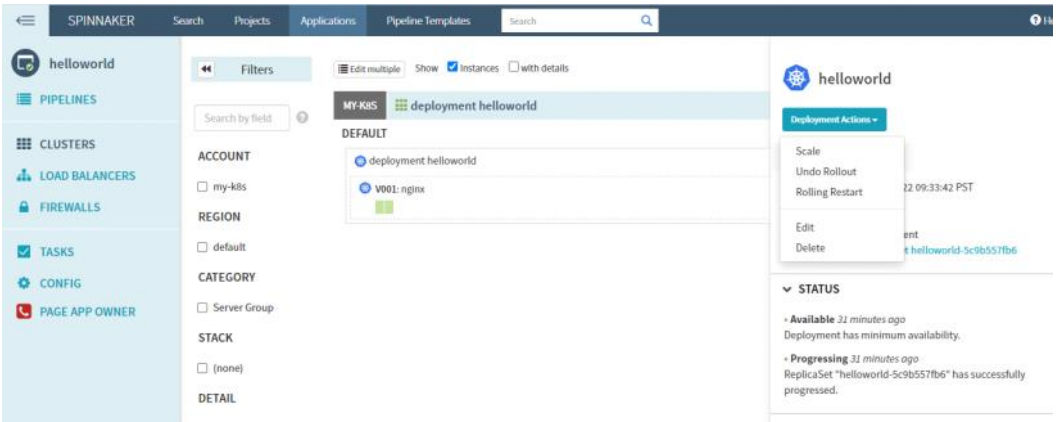


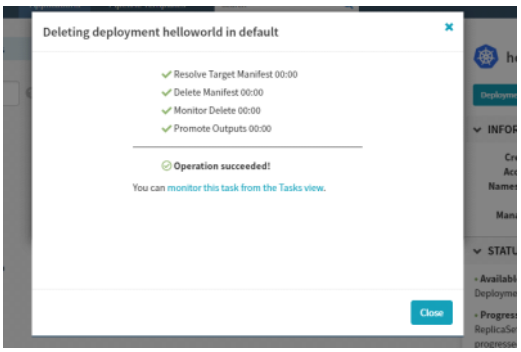


I open two tabs. In One tab open hello world application and in other tab my nginx

Now we will manually execute hello world pipeline and once it will complete it will trigger my-nginx pipeline

But before that let us delete hello world deployment, pods, replicaset Go to Hello world application , click on deployment. A pop up will come on right side . Click on Deployment actions. Click on Delete

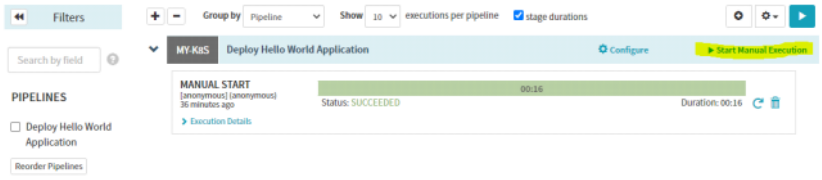




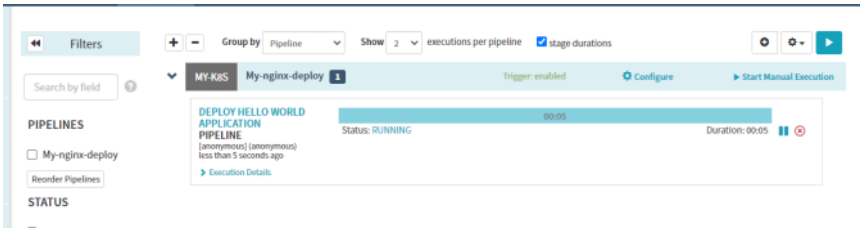
Verify helloworld pods are deleted

```
[root@master ~]# kubectl get all |grep hello
pod/helloworld-5c9b557fb6-62r6r   1/1     Running   0          31m
pod/helloworld-5c9b557fb6-nxdvk   1/1     Running   0          31m
deployment.apps/helloworld   2/2     2            2           31m
replicaset.apps/helloworld-5c9b557fb6   2         2         2       31m
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]#
[root@master ~]# kubectl get all |grep hello
[root@master ~]#
```

Now we are manually executing Hello world application. Click on Start Manual Execution



As soon as Hello world pipeline finishes, it trigger second pipeline of my-nginx-deploy. This will scale pod to 5



Verify that my-nginx pods are scaled to 5.

```
[root@master ~]# kubectl get all |grep my-nginx
pod/my-nginx-6b74b79f57-84jf4     1/1     Running   0          73s
pod/my-nginx-6b74b79f57-h4dxk     1/1     Running   0          6d9h
pod/my-nginx-6b74b79f57-msr55     1/1     Running   0          73s
pod/my-nginx-6b74b79f57-qkcjx     1/1     Running   0          6d9h
pod/my-nginx-6b74b79f57-r48x4     1/1     Running   0          73s
service/my-nginx     NodePort    10.98.123.92   <none>        80:32135/TCP   6d9h
deployment.apps/my-nginx     5/5     5            5           6d9h
replicaset.apps/my-nginx-6b74b79f57     5         5         5       6d9h
```