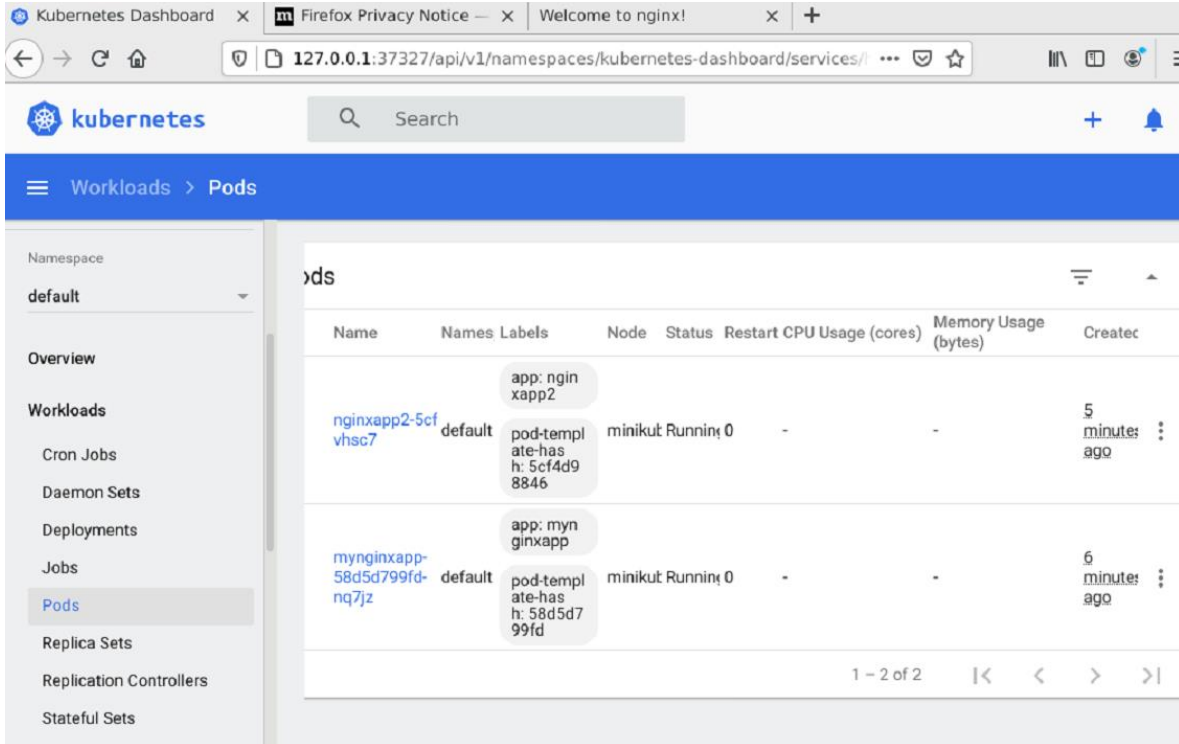


## Laboratorio 3 – Kubernetes

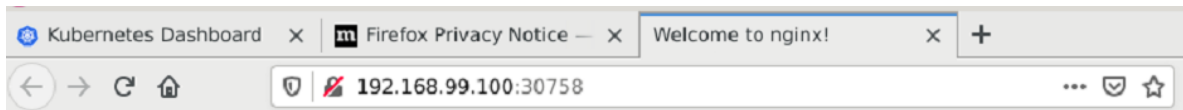
### 1. Estado del POD en la Consola Web de Kubernetes.

Nota: (Cree dos pods porque me equivoqué en el puerto del primero)



Name	Names	Labels	Node	Status	Restart	CPU Usage (cores)	Memory Usage (bytes)	Created
nginxapp2-5cfvhs7	default	app: nginxapp2 pod-template-hash: 5cf4d98846	minikube	Running	0	-	-	5 minutes ago
mynginxapp-58d5d799fd-nq7jz	default	app: mynginxapp pod-template-hash: 58d5d799fd	minikube	Running	0	-	-	6 minutes ago

### 2. Portal de Nginx



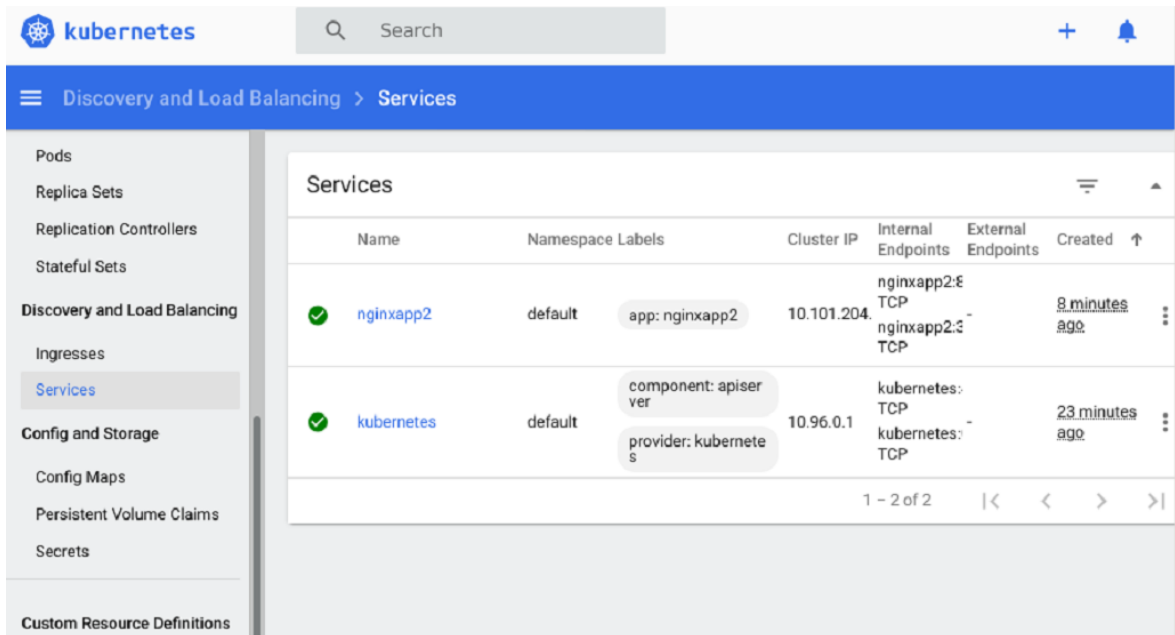
## Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to [nginx.org](https://nginx.org).  
Commercial support is available at [nginx.com](https://nginx.com).

*Thank you for using nginx.*

### 3. Estado del Servicio en la Consola Web de Kubernetes

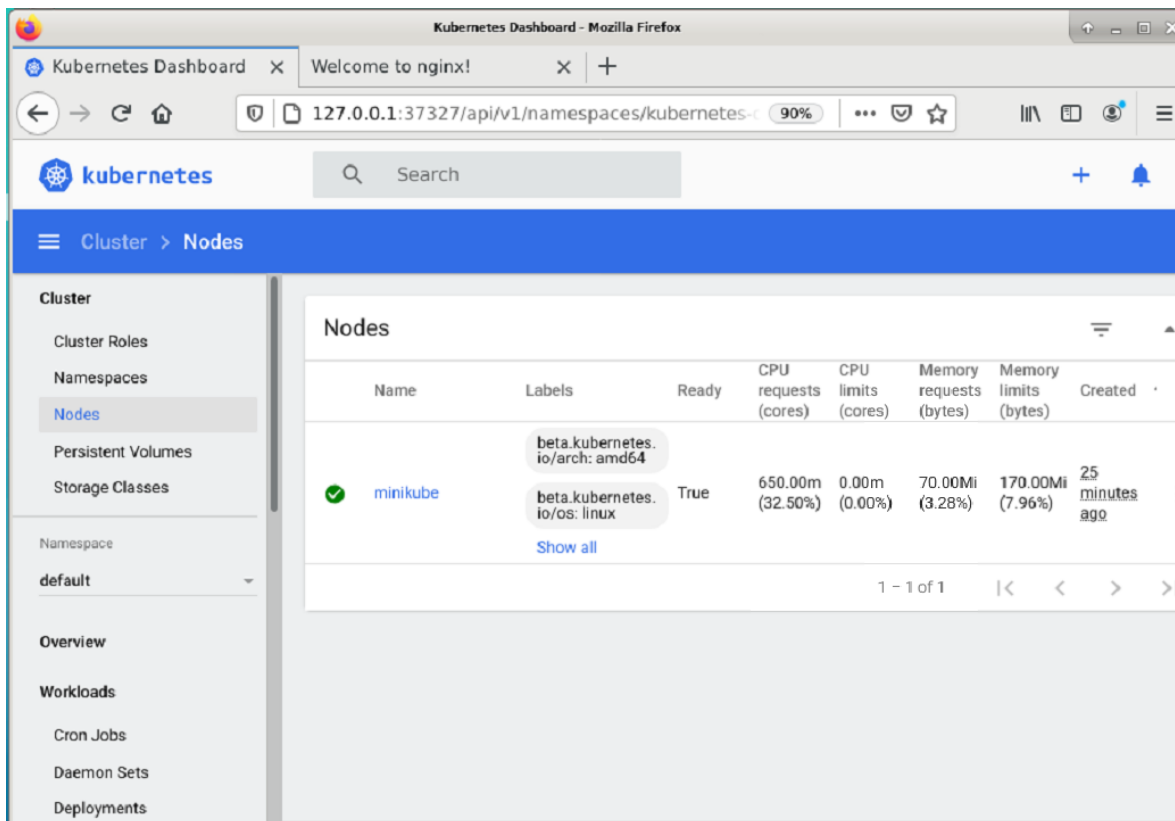


The screenshot shows the Kubernetes Dashboard interface. The left sidebar contains a menu with options: Pods, Replica Sets, Replication Controllers, Stateful Sets, Discovery and Load Balancing (selected), Ingresses, Config and Storage, Config Maps, Persistent Volume Claims, Secrets, and Custom Resource Definitions. The main content area is titled 'Services' and displays a table of services.

Name	Namespace	Labels	Cluster IP	Internal Endpoints	External Endpoints	Created
nginxapp2	default	app: nginxapp2	10.101.204	nginxapp2:80 TCP nginxapp2:80 TCP	-	8 minutes ago
kubernetes	default	component: apiserver provider: kubernet	10.96.0.1	kubernetes: TCP kubernetes: TCP	-	23 minutes ago

At the bottom of the table, it indicates '1 - 2 of 2' items.

### 4. Estado del Nodo en la Consola Web de Kubernetes



The screenshot shows the Kubernetes Dashboard interface. The left sidebar contains a menu with options: Cluster (selected), Cluster Roles, Namespaces, Nodes (selected), Persistent Volumes, Storage Classes, Namespace (dropdown set to 'default'), Overview, Workloads, Cron Jobs, Daemon Sets, and Deployments. The main content area is titled 'Nodes' and displays a table of nodes.

Name	Labels	Ready	CPU requests (cores)	CPU limits (cores)	Memory requests (bytes)	Memory limits (bytes)	Created
minikube	beta.kubernetes.io/arch: amd64 beta.kubernetes.io/os: linux	True	650.00m (32.50%)	0.00m (0.00%)	70.00Mi (3.28%)	170.00Mi (7.96%)	25 minutes ago

At the bottom of the table, it indicates '1 - 1 of 1' items.

## Puntos extra:

1. Para obtener una Shell del contenedor con kubectl:

Obtener el nombre del pod

```
johanArias@MiniKube:~/Desktop$ kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
mynginxapp-58d5d799fd-nq7jz        1/1     Running   0           30m
nginxapp2-5cf4d98846-vhsc7         1/1     Running   0           28m
johanArias@MiniKube:~/Desktop$
```

kubectl exec --stdin --tty <nombre del pod> -- /bin/bash

```
johanArias@MiniKube:~/Desktop$ kubectl exec --stdin --tty nginxapp2-5cf4d98846-vhsc7 -- /bin/bash
root@nginxapp2-5cf4d98846-vhsc7:/# cd /var/www/
bash: cd: /var/www/: No such file or directory
```

2. Encontrar la ruta del index.html por defecto, en este caso se puede ver en el archivo /etc/nginx/conf.d/default.conf

```
root@nginxapp2-5cf4d98846-vhsc7:/etc/nginx/conf.d# cat default.conf
server {
    listen      80;
    listen  [::]:80;
    server_name localhost;

    #charset koi8-r;
    #access_log /var/log/nginx/host.access.log main;

    location / {
        root    /usr/share/nginx/html;
        index   index.html index.htm;
    }

    #error_page 404              /404.html;

    # redirect server error pages to the static page /50x.html
    #
    error_page   500 502 503 504  /50x.html;
    location = /50x.html {
        root    /usr/share/nginx/html;
    }

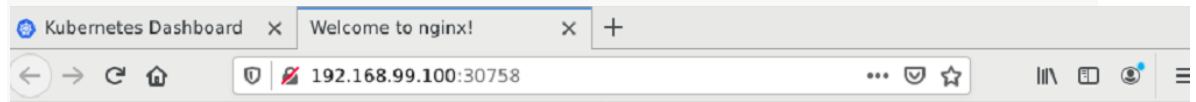
    # proxy the PHP scripts to Apache listening on 127.0.0.1:80
    #
    #location ~ \.php$ {
    #    proxy_pass http://127.0.0.1;
    #}

    # pass the PHP scripts to FastCGI server listening on 127.0.0.1:9000
    #
    #location ~ \.php$ {
    #    root    /usr/share/nginx/html;
    #    fastcgi_pass 127.0.0.1:9000;
    #    include fastcgi.conf;
    #}
}
```

3. Modificar el index.html

```
root@nginxapp2-5cf4d98846-vhsc7:/usr/share/nginx/html# echo "<h1> Johan Sebastian Arias </h1>" > /usr/share/nginx/html/index.html
root@nginxapp2-5cf4d98846-vhsc7:/usr/share/nginx/html# cat index.html
<h1> Johan Sebastian Arias </h1>
root@nginxapp2-5cf4d98846-vhsc7:/usr/share/nginx/html# echo "<h2> Paradigmas emergentes de computacion en la nube </h2>" >> /usr/share/nginx/html/index.html
root@nginxapp2-5cf4d98846-vhsc7:/usr/share/nginx/html# cat index.html
<h1> Johan Sebastian Arias </h1>
<h2> Paradigmas emergentes de computacion en la nube </h2>
root@nginxapp2-5cf4d98846-vhsc7:/usr/share/nginx/html#
```

4. Refrescamos y verificamos 😊



# Johan Sebastian Arias

## Paradigmas emergentes de computacion en la nube