52. Manual Scheduling

1. If you want to place a pod [container] inside a particular node for which we can use manually schedule

2. In kube-system namespace, if the 'scheduler" doesn't exists, then it cannot "place" the container/pod in the node. in this situation we can place the pod in a particular node.

use nodeName field under spec.

```
apiversion: v1
kind: Pod
metadata:
   name: nginx
spec:
  containers:
  - name: nginx
    image: nginx
  nodeName: kube-01
```

NOTE:-

we can specify the nodename only while creating ~~before~~ the pod, created & then ~~if~~ we need what if the pod is already created & you want to assign the pod to a node?

K8S wont allow you to modify the nodename property of a pod once the object got created.

so another way to assign a node to an existing pod is to *Create a binding object and *Send a POST request to the pod's binding API, thus mimicking what the actual Scheduler does. In the binding object, you Specify a target node with the name of the node then Send a POST request to the pod's binding API with the data set to the binding object in a JSON format,

Pod-definition.yaml

```
apiVersion: v1
Kind: Pod
metadata:
    name: nginx# pod name
    labels:
       name: nginx
spec:
   containers:
   - name: nginx
     image: nginx
     ports:
       - containerPort: 8080
```

Pod-bind-definition.yaml

```
apiversion: v1
Kind: Binding
metadata:
     name: nginx# Must match the Pod name
  target:
     apiversion: v1
     Kind: Node
     name: node02 # specific node name
```

```
>curl --header "Content-Type: application/json" --request POST --data
        '{"apiversion": "v1", "Kind": "Binding"....}'
http://$SERVER/api/v1/namespaces/default/pods/$PODNAME/binding/
```

you must Convert the YAML file into its equivalent JSON format,