**🚀 What is a Rolling Update?**

A **Rolling Update** gradually replaces old Pods with new ones, **ensuring no downtime**.

* Old pods are terminated **one by one**
* New pods are brought up **in parallel**
* Controlled via:
  + maxUnavailable: how many old pods **can be unavailable** at once
  + maxSurge: how many **extra pods** (above desired replicas) can be added temporarily

**🔁 How Rolling Update Works:**

Let's say you're updating the image to appjava:2.

**With above config:**

* **maxUnavailable = 1**: at most **1 pod** can be **unavailable** during update
* **maxSurge = 1**: up to **1 extra pod** can be created **above 4 replicas**

**Update command:**

kubectl set image deployment/springboot-app springboot=sumanth17121988/appjava:2

kubectl set image deployment/springboot-rollingupdate-app \

springboot=skrisacr.azurecr.io/springbootapp:v2

**Behavior:**

1. Creates **1 new pod** (total = 5)
2. Waits until it’s **Ready**
3. Deletes **1 old pod** (total = 4)
4. Repeats the cycle until all 4 pods are updated

✅ **Zero downtime**  
✅ **Controlled rollout**  
✅ You can **pause/resume/rollback**

**🛑 Rollback (if something goes wrong)**

kubectl rollout undo deployment/springboot-rollingupdate-app

**🔍 Monitor the Update**

kubectl rollout status deployment/springboot-rollingupdate-app

**🔄 What is Recreate Strategy?**

**Recreate** kills **all existing pods** of a deployment **before** starting new ones.

**❗ Use it when:**

* Your application **can’t support multiple versions** running at the same time
* You’re okay with **temporary downtime**
* You're replacing a **stateful or singleton app**

A screenshot of a computer

AI-generated content may be incorrect.

**Recreate :**

apiVersion: apps/v1

kind: Deployment

metadata:

name: springboot-app-recreate

spec:

replicas: 3

selector:

matchLabels:

app: springboot-app

strategy:

type: Recreate

template:

metadata:

labels:

app: springboot-app

spec:

containers:

- name: springboot

image: sumanth17121988/appjava:1

ports:

- containerPort: 8881

**⬆️ Trigger an Update**

Let’s say we want to upgrade to appjava:2:

kubectl set image deployment/springboot-app-recreate springboot=sumanth17121988/appjava:2

**Behavior:**

1. Kubernetes **terminates all 3 existing pods**
2. **Then** creates 3 new pods with the new image
3. Users see **temporary downtime**

kubectl set image deployment/springboot-recreate-app \

springboot=skrisacr.azurecr.io/springbootapp:v2

kubectl rollout status deployment/springboot-recreate-app

kubectl rollout undo deployment/springboot-recreate-app

kubectl rollout restart deployment creditcard-service