# Kubernetes - Replica Sets

Replica Set ensures how many replica of pod should be running. It can be considered as a replacement of replication controller. The key difference between the replica set and the replication controller is, the replication controller only supports equality-based selector whereas the replica set supports set-based selector.

apiVersion: extensions/v1beta1 --------------------->1

kind: ReplicaSet --------------------------> 2

metadata:

name: Tomcat-ReplicaSet

spec:

replicas: 3

selector:

matchLables:

tier: Backend ------------------> 3

matchExpression:

{ key: tier, operation: In, values: [Backend]} --------------> 4

template:

metadata:

lables:

app: Tomcat-ReplicaSet

tier: Backend

labels:

app: App

component: neo4j

spec:

containers:

- name: Tomcat

image: tomcat: 8.0

ports:

- containerPort: 7474

## Setup Details

**apiVersion: extensions/v1beta1** → In the above code, the API version is the advanced beta version of Kubernetes which supports the concept of replica set.

**kind: ReplicaSet** → We have defined the kind as the replica set which helps kubectl to understand that the file is used to create a replica set.

**tier: Backend** → We have defined the label tier as backend which creates a matching selector.

**{key: tier, operation: In, values: [Backend]}** → This will help **matchExpression** to understand the matching condition we have defined and in the operation which is used by **matchlabel** to find details.

Run the above file using **kubectl** and create the backend replica set with the provided definition in the **yaml** file.

