

Kubernetes Cluster



Namespace

Is a scope for other resources and logically separates resources and configurations within a cluster.



Configmap

Holds configuration data that can be consumed by containers in pods

Secret

Holds sensitive information that can be consumed by containers



Statefulset

Manages the deployment and scaling of pods  
Guarantees the ordering and uniqueness of pods



PVC

Requests storage resources from the cluster  
Used by statefulset to provide persistent storage so that data remains intact across pod restarts and rescheduling



HPA

Automatically scales the number of pods in a deployment or replicaset based on observed metrics