0] kubectl
kubectl controlls kubernate using http rest api. Kubectl is client of kubernate api. Every operation is exposed as an api endpoint and can be executed by http request to this endpoint
kubeconfig file used to configure access to kubernate. It is in /home/.kube/config. It contains the configuration for clusters.

1]kube-controller-manager
it is main part of kubernates. It monitors all the processes. And run in master node. This controller watch the status of different services deployed through api. It take care of nodes, workloads, namespace and service accounts.

2]kube scheduler:
it is responsible for shedule pods onto nodes.
When we create a pod schedular checks that any new pod created or not. And any node assign to it. If not then scheduler assigns a node to pod.
Kube scheduler selects a node for pod using 1)Filtering 2) Scoring.
Filtering finds the set of nodes where it is feasible toschedule a pod
In scoring step scheduler ranks remaining nodes to choose ost suitable pods placement

3]Kube-apiserver
kubernate apiserver validate and configures data for the api object which include pods, services, relation controllers and others it services rest operations

4]Kubeproxy
Kubeproxy is a network proxy runs on eahc node. It is key component of any kubernate deployment. It load balace traffic

5]What is Kubelet?
Kubelet is a primar node agent run on each node. It is a part of kubernate arch. It is responsible for driving docker, reporting status to master, setting node-level resources.
It runs pods which is a collection of containers which share several resources.

6] etcd in kubernates
etcd is a distributed key-value store.. primary datasotore in kubernates. Kubernate use it as a database. It store and replicate all kubernate clusters state. It stores actual state of system and desired state of system in etcd. Race conditions and networking problems are manage by etcd

7]Pod in kubernates: Relation between pod and container:
pod is a group of containers that are deployed together on same host.

It operates at one level higher than individual container. Group of containers work together to produce an artifact or process a set work.
This pods are controlled by replication controller which create and destroy replicas of pod as needed.
Pods are group of one or more application containers.

8]kube namespace:
It provides additional qualification to resource name.
This is helpful when multiple teams are using same cluster and there may be chances of name collision. It works as a wall between multiple clusters.
Pod -pod communication using same namesapce.
Namespace are virtual cluster at top of physical cluster.

9]

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