09-service

Service What it is `Service` provides stable networking and load balancing to matching Pods. When to use Stable internal endpoint for changing Pods Expose workloads inside or outside cluster Service types `ClusterIP`: internal-only (default) `NodePort`: exposes on each node IP + port `LoadBalancer`: cloud LB integration `ExternalName`: DNS alias to external service Key fields `spec.selector`: targets Pod labels `spec.ports[]`: service and target ports `spec.type`: exposure model Common commands `bash kubectl get svc kubectl expose deployment web --port=80 --target-port=80 --type=ClusterIP kubectl describe svc web kubectl get endpoints web kubectl delete svc web` YAML example `yaml apiVersion: v1 kind: Service metadata: name: web spec: type: ClusterIP selector: app: web ports: - name: http port: 80 targetPort: 80` Practical notes Selectorless Service can be paired with manual Endpoints/EndpointSlices. `port` is client-facing, `targetPort` is Pod container port.