Using Custom Resources (CRD)

Relevant Documentation

- Extend the Kubernetes API with CustomResourceDefinitions
- Custom Resources

Exam Tips

- Custom Resources are extensions to the Kubernetes API.
- A CustomResourceDefinition defines a custom resource.

Lesson Reference

Log in to the **control plane node**.

Create a CustomResourceDefinition.

```
vi beehives.yml
```

```yaml
apiVersion: apiextensions.k8s.io/v1
kind: CustomResourceDefinition
metadata:
  name: beehives.acloud.guru
spec:
  group: acloud.guru
  names:
    plural: beehives
    singular: beehive
    kind: BeeHive
    shortNames:
    - hive
  scope: Namespaced
  versions:
  - name: v1
    served: true
    storage: true
    schema:
      openAPIV3Schema:
        type: object
        properties:
          spec:
            type: object
            properties:
              supers:
                type: integer
              bees:
                type: integer
```

```
kubectl apply -f beehives.yml
```

List the current CRDs.

```
kubectl get crd
```

Create an object using your new CRD.

```
vi test-beehive.yml
```

```
apiVersion: acloud.guru/v1
kind: BeeHive
metadata:
  name: test-beehive
spec:
  supers: 3
  bees: 60000
```

```
kubectl apply -f test-beehive.yml
```

Interact with your custom object using kubectl commands.

```
kubectl get beehives

kubectl get hive

kubectl describe beehive test-beehive
```