Labels and Selectors

Labels are the mechanism you use to organize Kubernetes objects. A label is a key-value pair with certain restrictions concerning length and allowed values but without any pre-defined meaning.

Let's create a pod that initially has one label (env=development):

```
kubectl create -f https://raw.githubusercontent.com/mhausenblas/kbe/mast
er/specs/labels/pod.yaml
pod "labelex" created

kubectl get pods --show-labels
NAME                                    READY     STATUS              RES
TARTS   AGE       LABELS
labelex                                 0/1       ContainerCreating   0
        26s       env=development
```

You can add a label to the pod as:

```
kubectl label pods labelex owner=admatic
pod "labelex" labeled

kubectl get pods --show-labels
NAME                                    READY     STATUS    RESTARTS   AG
E       LABELS
labelex                                 1/1       Running   0          4m
        env=development,owner=admatic
```

To use a label for filtering, for example to list only pods that have an owner that equals michael, use the `--selector` option.

The `--selector` option can be abbreviated to `-l`

```
kubectl get pods --selector owner=admatic
NAME      READY     STATUS    RESTARTS   AGE
labelex   1/1       Running   0          5m

kubectl get pods -l env=development
```

```
NAME      READY     STATUS    RESTARTS   AGE
labelex   1/1       Running   0          6m
```

Kubernetes objects also support set-based selectors.

```
kubectl get pods -l 'env in (production, development)'
NAME      READY     STATUS    RESTARTS   AGE
labelex   1/1       Running   0          6m
```