YAML Snippets

Config Maps

All of the below examples assume that a cm exists call config with key=val using:

```
k create cm config --from-literal=key=val
```

1. Consume single value as environment variable:

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: cm-as-env-var
spec:
  containers:
  - name: nginx
    image: nginx
    env:
    - name: VAR
      valueFrom:
        configMapKeyRef:
          name: config
          key: key
```

2. Consume whole config map to environment variables preserving keys as VAR_NAMES:

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: cm-to-volume
spec:
  containers:
  - name: nginx
    image: nginx
    envFrom:
    - configMapRef:
        name: config
```

3. Consume whole config map and make it a vailable as a directory on a volume at a custom mount path:

```
spec:
  containers:
    - name: test-container
      image: k8s.gcr.io/busybox

      volumeMounts:
      - name: config-volume
        mountPath: /etc/config

  volumes:
    - name: config-volume
      configMap:
        name: special-config
        items:
        - key: SPECIAL_LEVEL
          path: keys
```

Secrets

All of the examples below assume that a secret has already been created using:

```
kubectl create secret generic my-secret --from-literal=username=jamie
```

Which will yield:

```
apiVersion: v1
data:
  password: cGFzc3dvcmQ=
kind: Secret
metadata:
  creationTimestamp: null
  name: my-secret
```

To mount a secret in a volume:

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: mypod
spec:
  containers:
  - name: mypod
    image: redis
    volumeMounts:
    - name: foo
      mountPath: "/etc/foo"
  volumes:
  - name: foo
    secret:
      secretName: mysecret
      # OPTIONAL - extend path/provide key.
      items:
      - key: username
        path: my-group/my-username
```

To consume a secret as an environment variable:

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: secret-env-pod
spec:
  containers:
  - name: mycontainer
    image: redis
    env:
    - name: SECRET_USERNAME
      valueFrom:
        secretKeyRef:
          name: my-secret
          key: username
```

You can edit secrets with `kubectl edit`.

To decode a secret `echo 'MWYyZDFlMmU2N2Rm' | base64 --decode`

Persistent Volume Claims:

The pod that consumes a pvc has to be modified in 2 ways,

We need to specify a volume using `volumes.persistentVolumeClaim.claimName` :

```
volumes:
- name: task-pv-storage         # Can be anything.
  persistentVolumeClaim:
    claimName: task-pv-claim    # Name of the claim.
```

And we need to specify a volume mount `containers.volumeMounts`:

```
volumeMounts:
- name: task-pv-storage    # Name of the volume to be mounted.
  mountPath: '/tmp'        # Path on container that volume wile be available at.
```