Virtual Machines Instances

The `VirtualMachineInstance` type conceptionally has two parts:

- Information for making scheduling decisions
- Information about the virtual machine API

Every `VirtualMachineInstance` object represents a single running virtual machine instance.

API Overview

With the installation of KubeVirt, new types are added to the Kubernetes API to manage Virtual Machines.

You can interact with the new resources (via `kubectl`) as you would with any other API resource.

VirtualMachineInstance API

> Note: A full API reference is available at https://kubevirt.io/api-reference/.

Here is an example of a VirtualMachineInstance object:

```yaml
apiVersion: kubevirt.io/v1
kind: VirtualMachineInstance
metadata:
  name: testvmi-nocloud
spec:
  terminationGracePeriodSeconds: 30
  domain:
    resources:
      requests:
        memory: 1024M
    devices:
      disks:
      - name: containerdisk
        disk:
          bus: virtio
      - name: emptydisk
        disk:
          bus: virtio
      - disk:
          bus: virtio
        name: cloudinitdisk
  volumes:
  - name: containerdisk
    containerDisk:
      image: kubevirt/fedora-cloud-container-disk-demo:latest
  - name: emptydisk
    emptyDisk:
      capacity: "2Gi"
  - name: cloudinitdisk
    cloudInitNoCloud:
      userData: |-
        #cloud-config
        password: fedora
        chpasswd: { expire: False }
```

This example uses a fedora cloud image in combination with cloud-init and an ephemeral empty disk with a capacity of `2Gi`. For the sake of simplicity, the volume sources in this example are ephemeral and don't require a provisioner in your cluster.

Additional Information

- Using instancetypes and preferences with a VirtualMachine: Instancetypes and preferences
- More information about persistent and ephemeral volumes: Disks and Volumes
- How to access a VirtualMachineInstance via `console` or `vnc`: Console Access