Large Scale Data Management

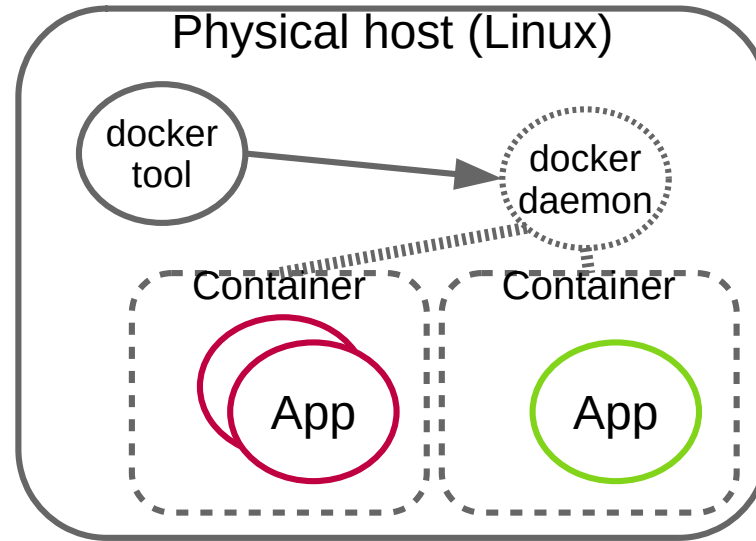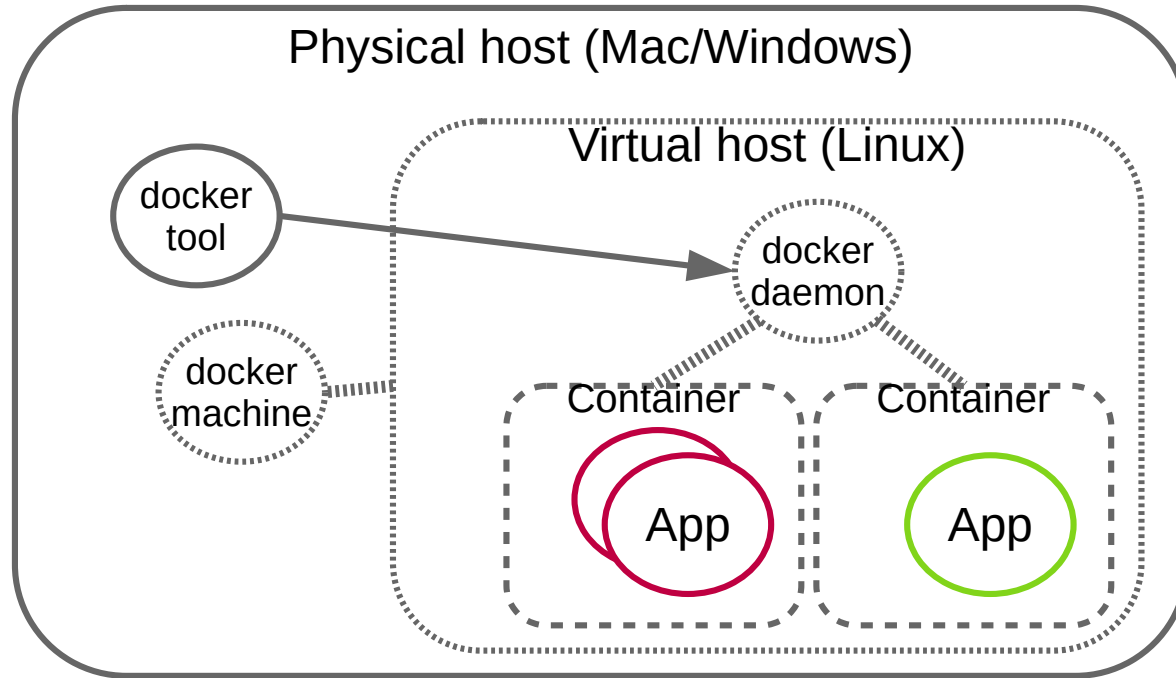# Basic setup

- Create a project in the cloud console

- Add more members to project in "IAM&Admin">"IAM"

- Locally install the Google Cloud SDK from https://cloud.google.com/sdk/install and:

    ```
    $ gcloud auth login
    ```

    ```
    $ gcloud auth application-default login
    ```

    ```
    $ gcloud config set project projectname
    ```

- Test by starting an instance and using:

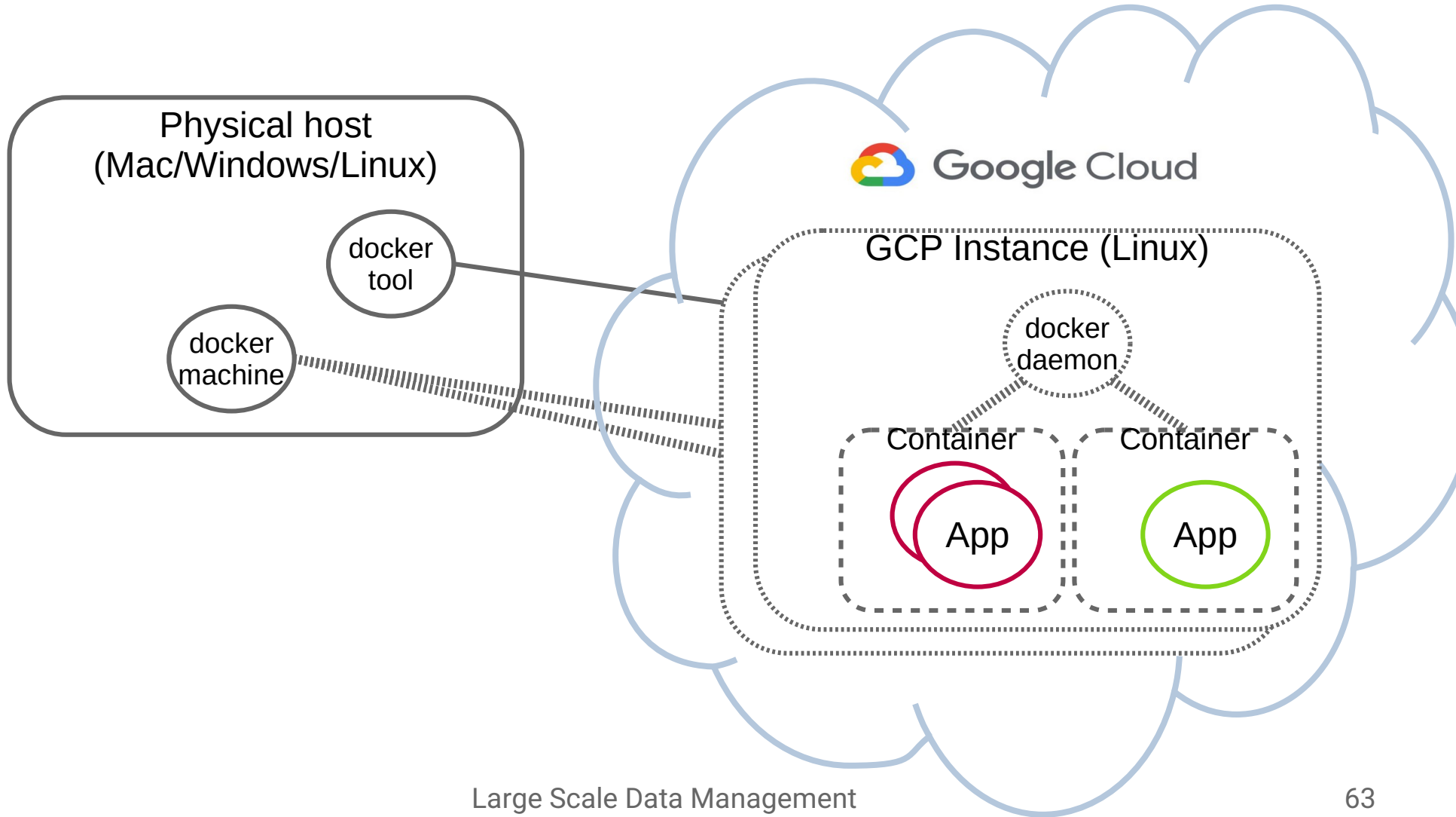   ```
    $ gcloud compute ssh instancename
    ```

# Docker in Linux

# Docker in Mac/Windows

# Docker on GCP

Physical host
(Mac/Windows/Linux)

docker
tool

docker
machine

Google Cloud

GCP Instance (Linux)

docker
daemon

Container          Container

App                 App

# Docker Machine

- Linux: Need to install docker-machine

- Mac/Windows: docker-machine is included in Docker Toolbox, not in Docker Desktop

- If needed, install from:

    https://docs.docker.com/machine/install-machine/

# Docker Machine on GCP

- Start a docker machine with:

  $ docker-machine create
      --driver google --google-project *projectname*
      --google-zone europe-west1-b
      --google-machine-type n1-standard-4
      --google-disk-size=100
      *envname*

  $ docker-machine env *envname*

- More info at: https://docs.docker.com/machine/drivers/gce/

# Docker Machine on GCP

- Stop instance with:

  $ docker-machine stop *envname*

  restart with:

  $ docker-machine start *envname*

- Remove instance with:

  $ docker-machine rm *envname*

- **Don't forget to stop/remove the GCP instance!!!**