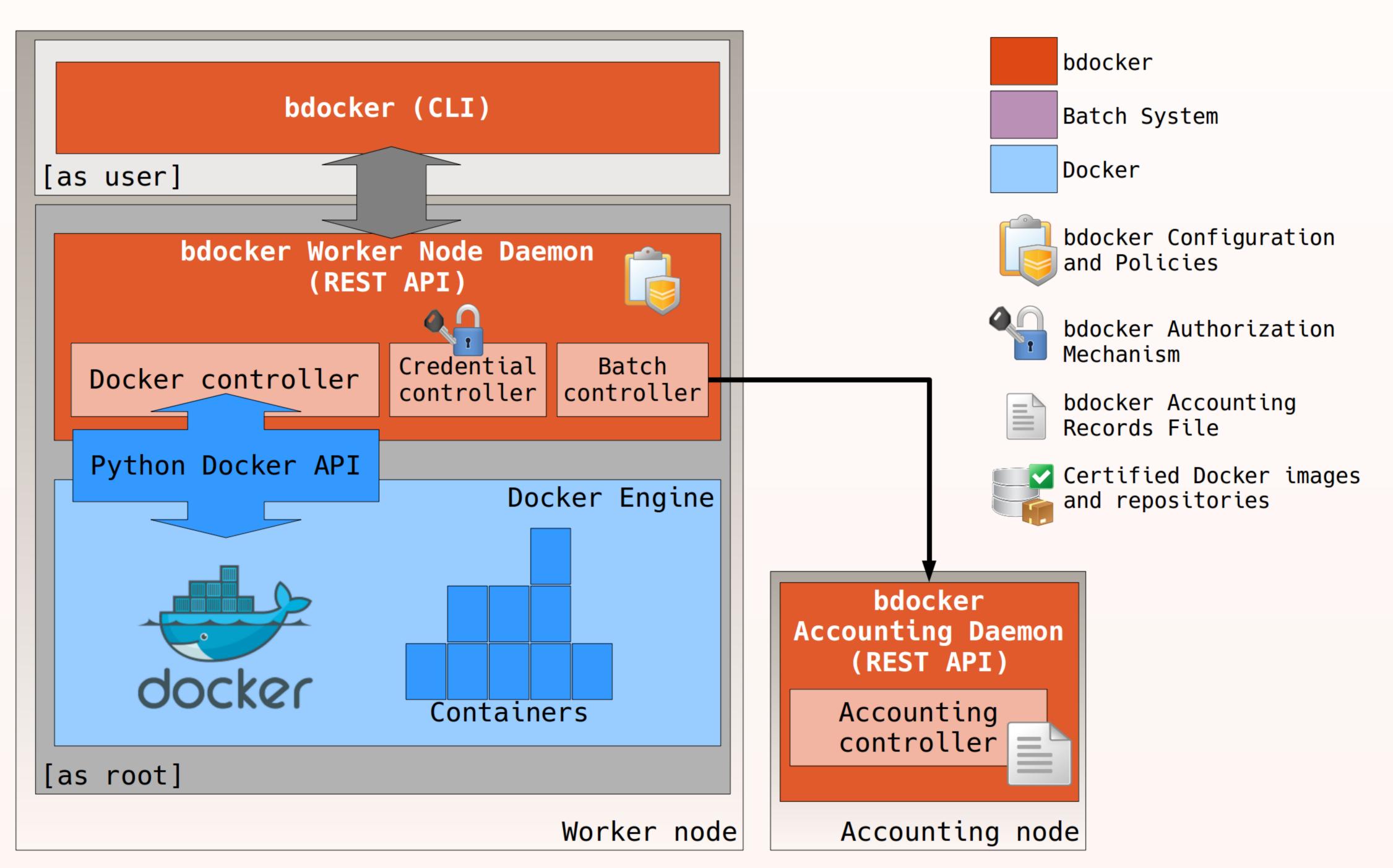
# bdocker and udocker

# Execution of containers in batch systems

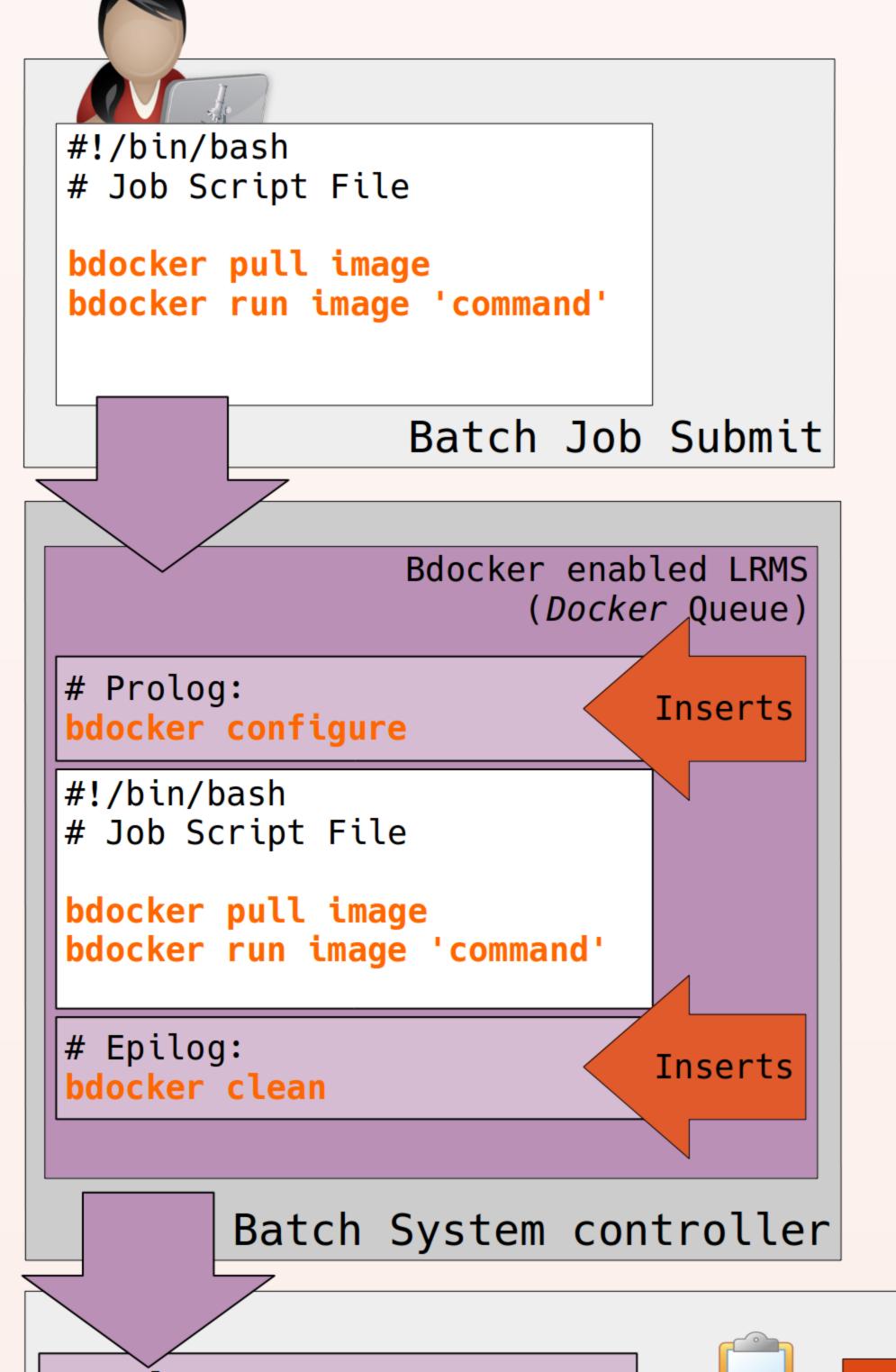
bdocker and udocker are two complementary solutions to address the need for container support on batch system environments. bdocker aims to enable containers' execution and management in batch systems while udocker provides a user-space lightweight virtualization environment to execute application containers across systems.

## bdocker

enables containers' execution and management on batch systems by implementing a client-server architecture:

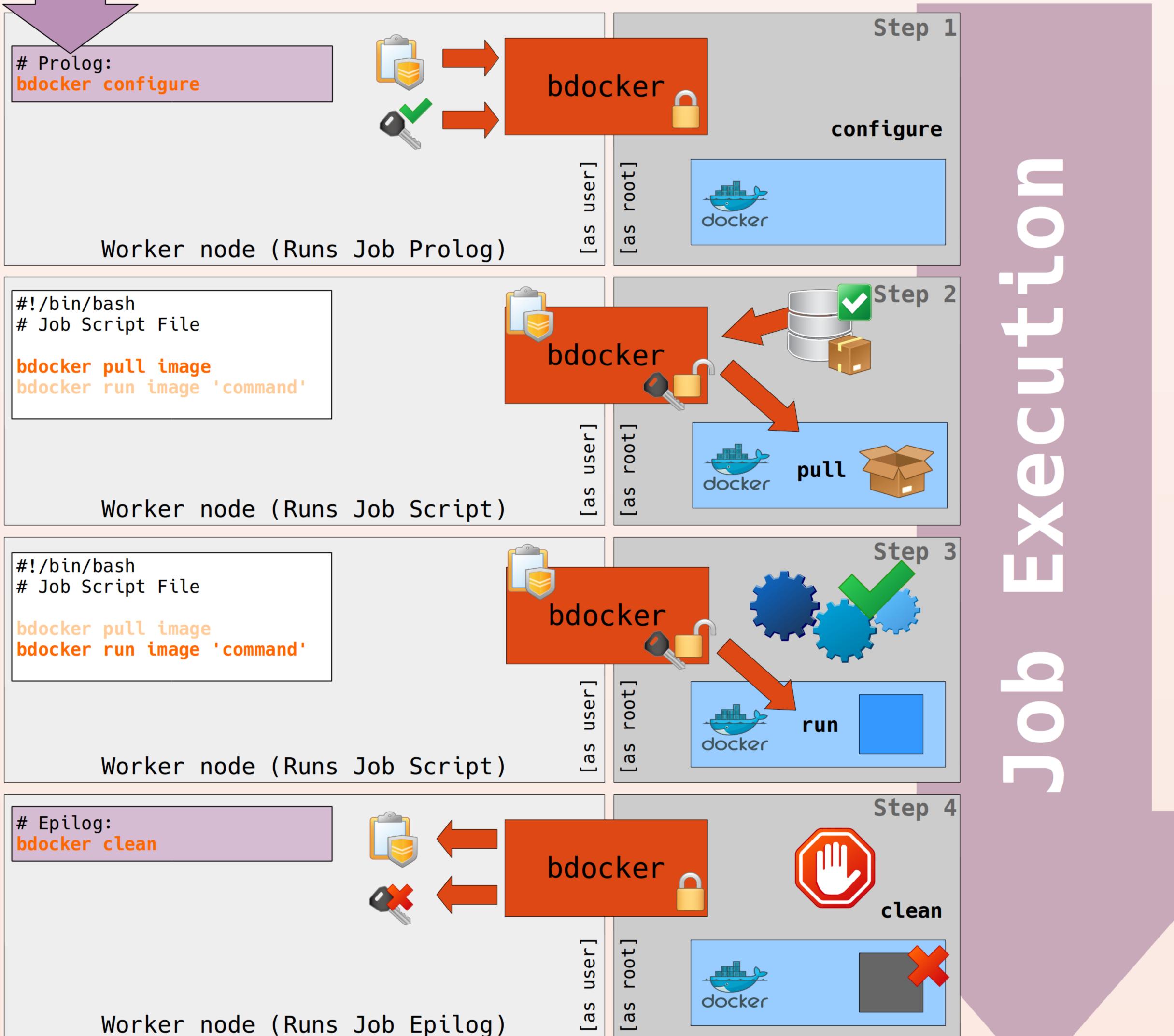


bdocker's architecture logical diagram



bdocker cooperates with the cluster's resource manager running two daemons, one on the batch system controller node and one other on each worker node.

While the batch system controller node daemon deals with job submission, user authorization and accounting recording, at the worker nodes, bdocker daemon acts as a wrapper around conventional Docker installation, ensuring this way controlled container execution, accounting and job clean up.



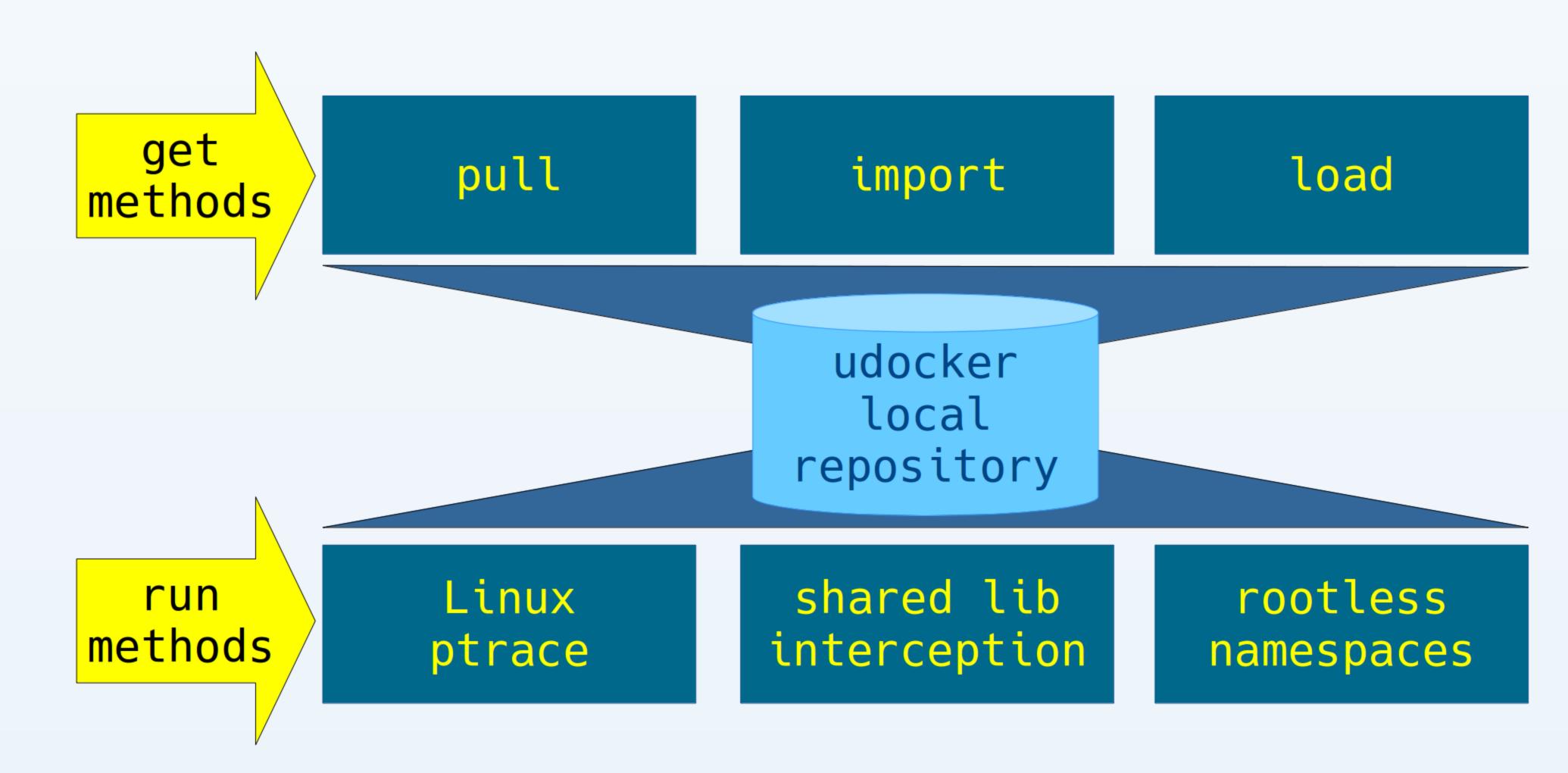
## https://github.com/indigo-dc/bdocker

#### udocker

is a tool to run containers in user space without:

- Docker
- privileges
- sysadmin assistance

udocker empowers users to run applications encapsulated in Docker containers but can be used to run any container that does not require privileges.

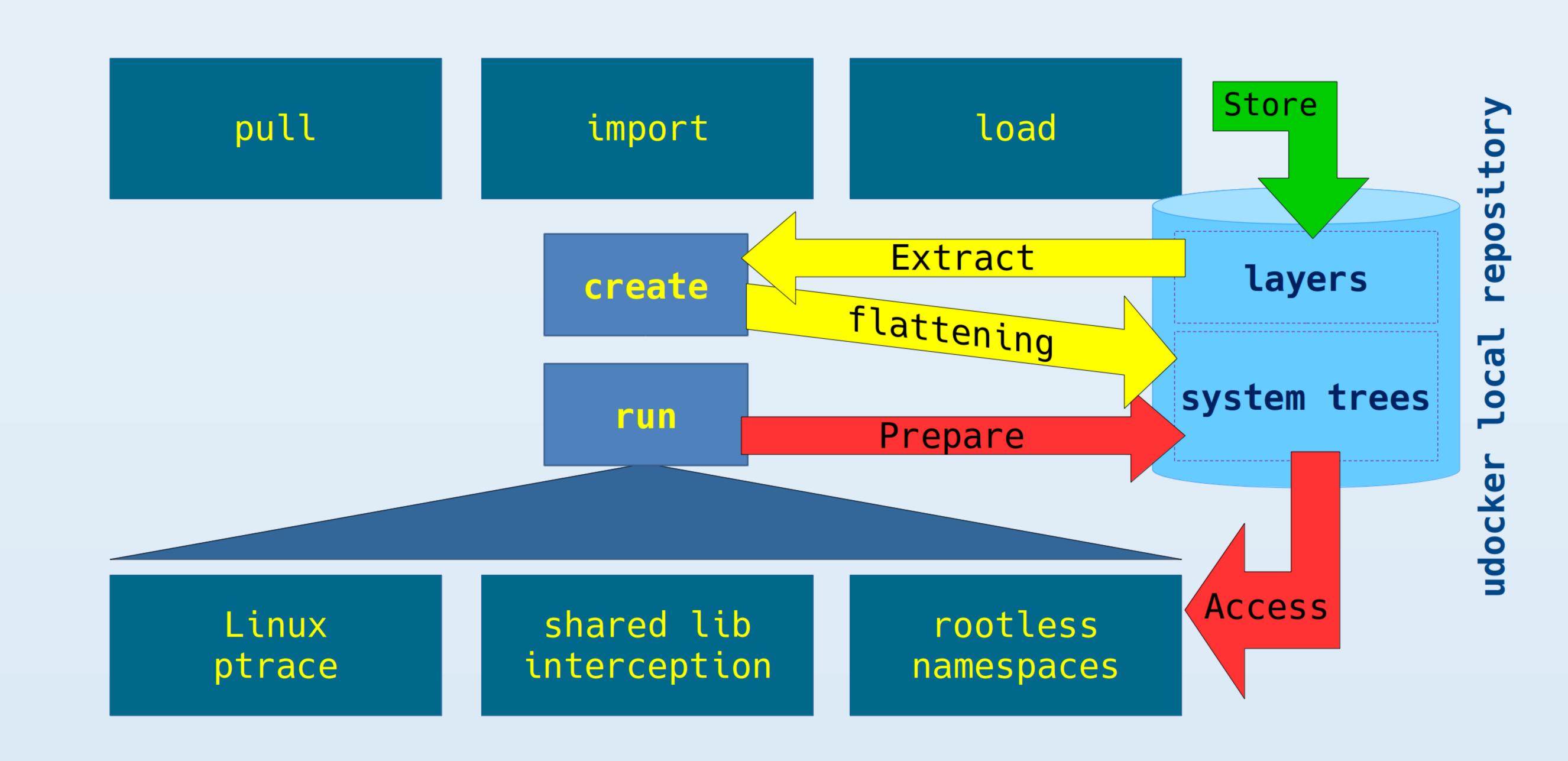


#### Container images can be:

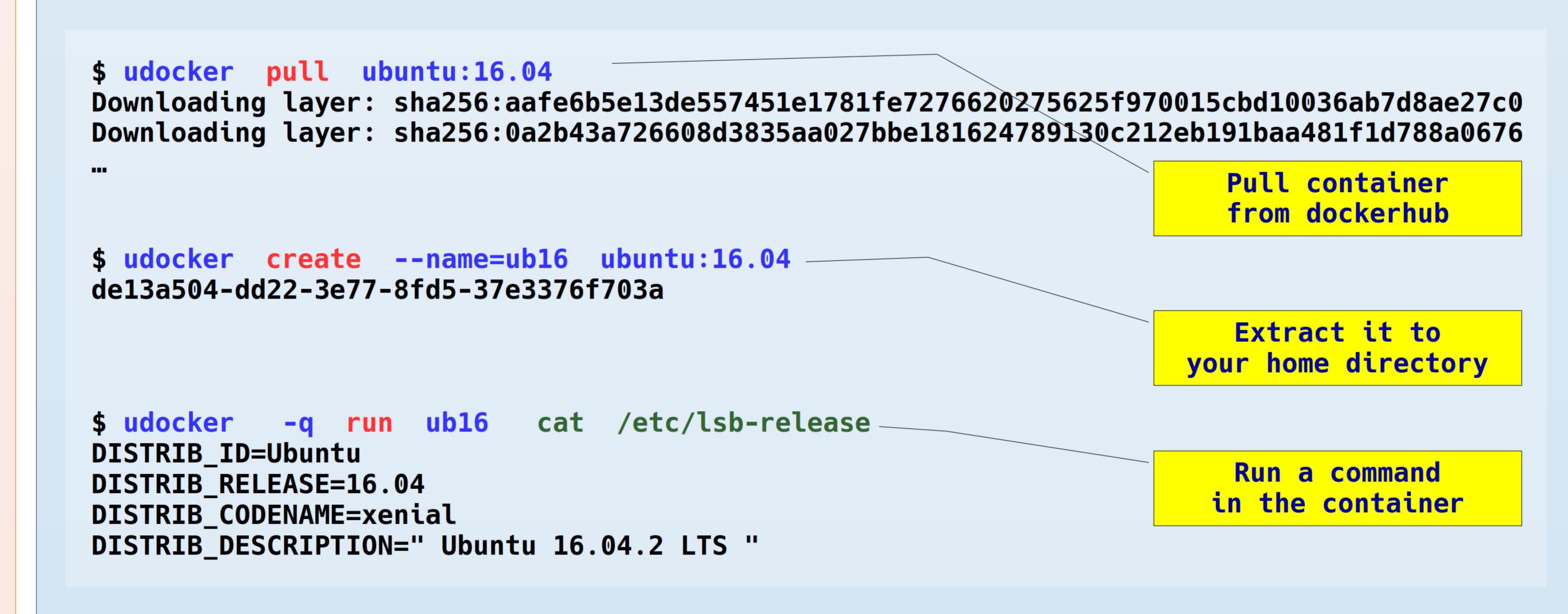
- pulled from dockerhub or other public or private repositories
- loaded from Docker containers previously saved
- imported from tarballs containing a file-system hierarchy

These container images are stored in the udocker local repository within the user home. Flattened containers can be produced from the images. Execution is performed with several interchangeable methods:

- system call interception
- library call interception
- rootless namespaces



#### Here's an example:



## https://github.com/indigo-dc/udocker

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