



# Container Basics

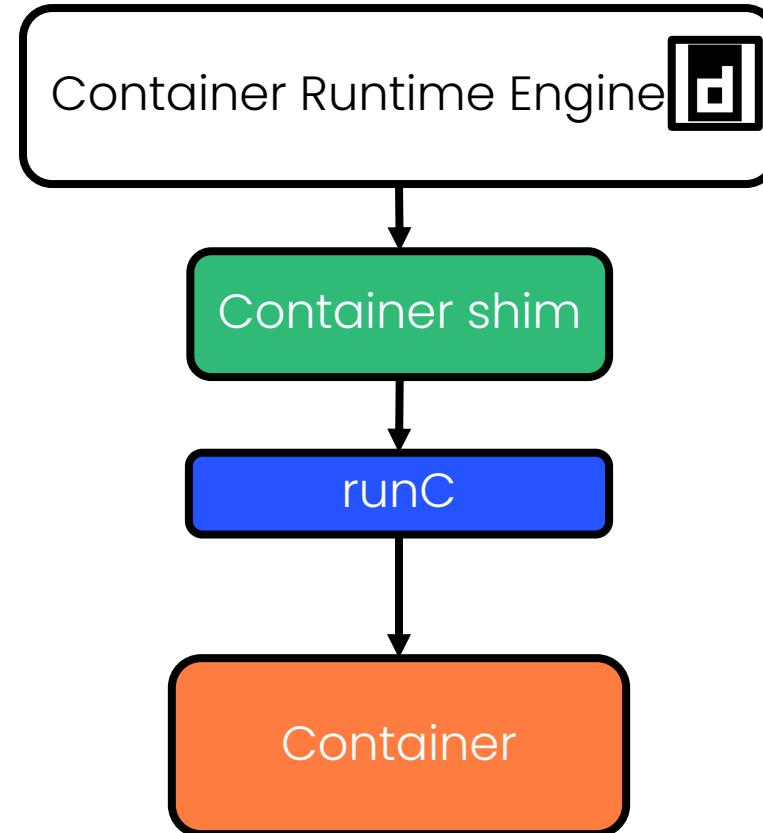
Creating and inspecting your very first container!

# Agenda

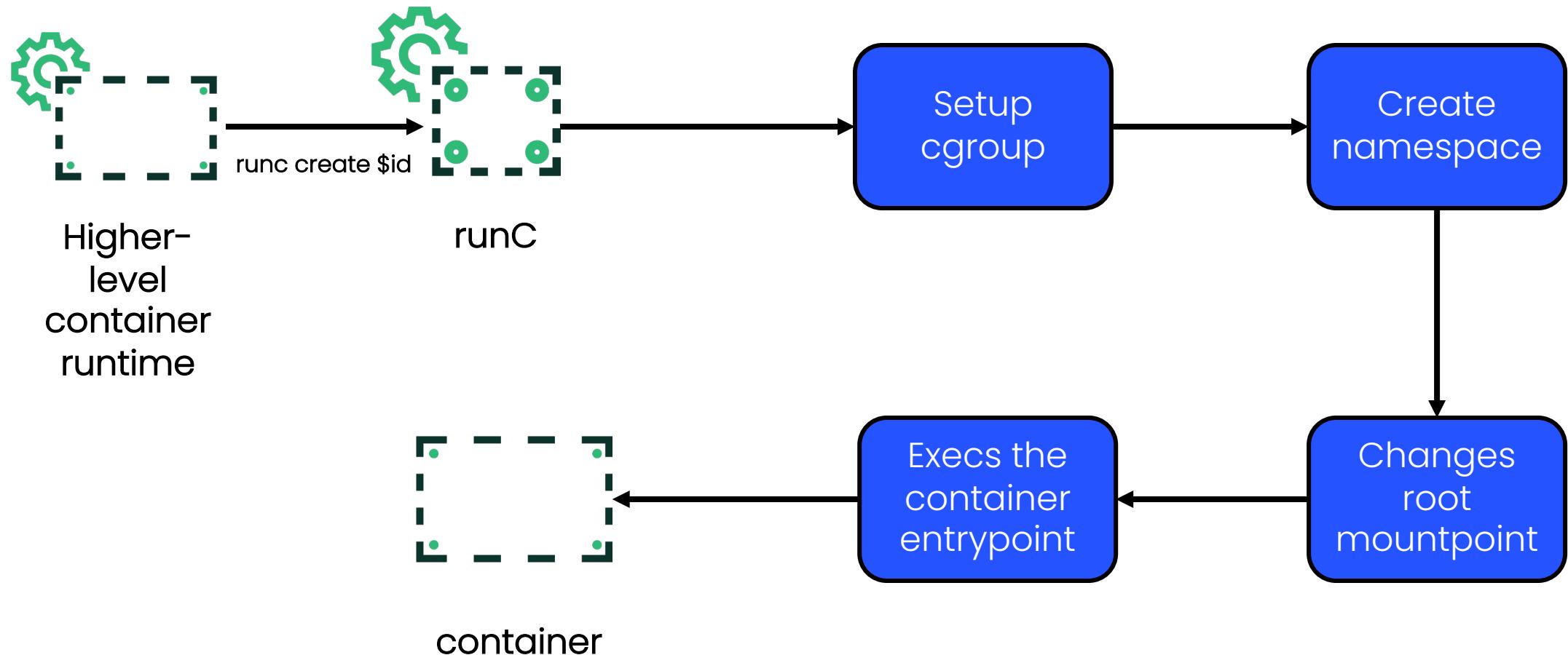
1. The runC container runtime
2. Basic commands using nerdctl CLI
3. Execution workflow



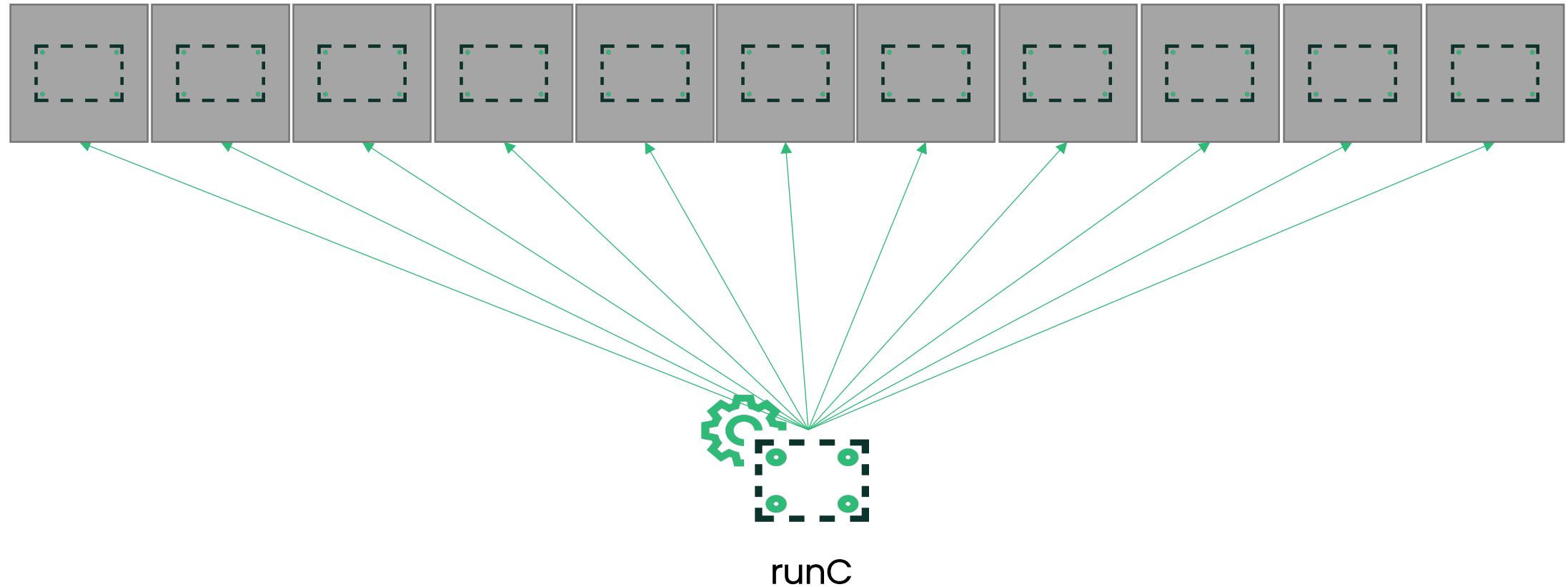
# The runC container runtime



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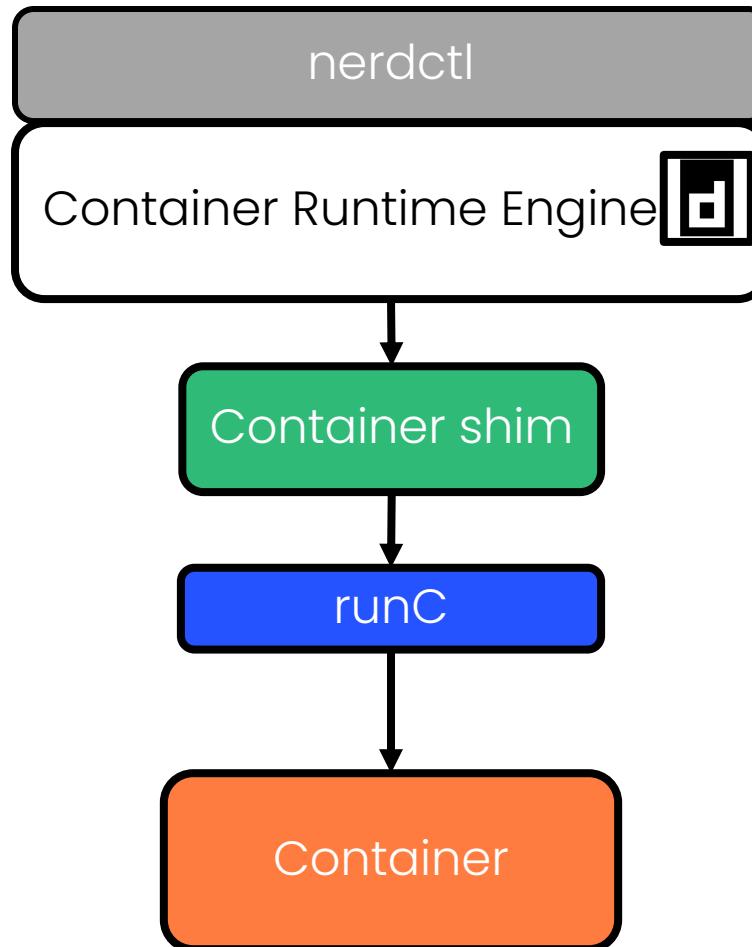


# The runC container runtime

- Pulling images from registries
- Keeping track of container statuses
- Restarting containers on failure
- Releasing resources on termination of containers

... and so much more!

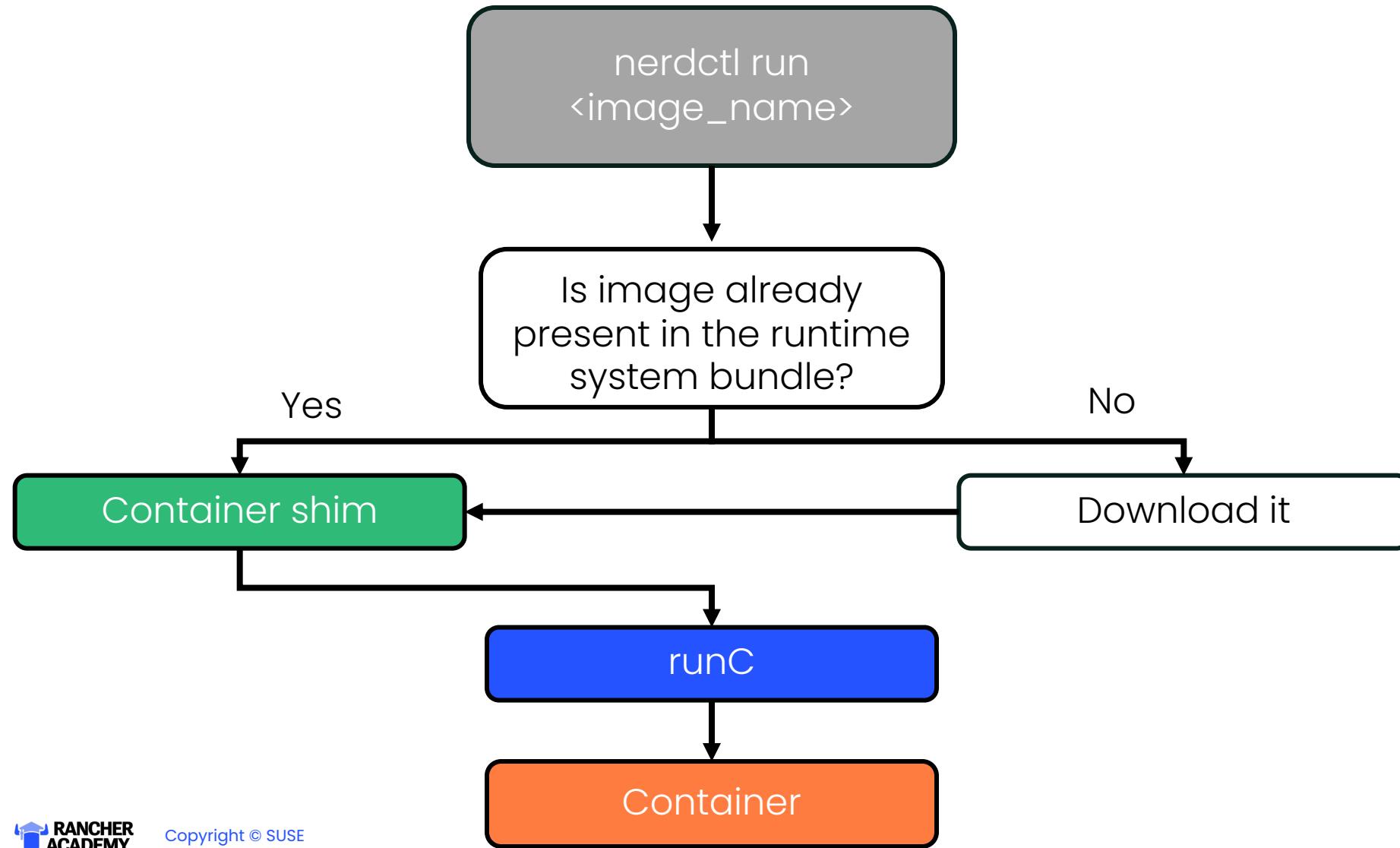
# The runC container runtime



# Basic nerdctl commands

```
build      Build an image from a Dockerfile. Needs buildkitd to be running.
commit     Create a new image from a container's changes
completion Generate the autocompletion script for the specified shell
compose    Compose
cp         Copy files/folders between a running container and the local filesystem.
create     Create a new container. Optionally specify "ipfs://" or "ipns://" scheme to pull image from IPFS.
events     Get real time events from the server
exec       Run a command in a running container
help       Help about any command
history   Show the history of an image
images    List images
info       Display system-wide information
inspect   Return low-level information on objects.
internal  DO NOT EXECUTE MANUALLY
kill       Kill one or more running containers
load      Load an image from a tar archive or STDIN
login     Log in to a Docker registry
logout    Log out from a Docker registry
logs      Fetch the logs of a container. Currently, only containers created with `nerdctl run -d` are supported.
pause     Pause all processes within one or more containers
port      List port mappings or a specific mapping for the container
ps        List containers
pull      Pull an image from a registry. Optionally specify "ipfs://" or "ipns://" scheme to pull image from IPFS.
push      Push an image or a repository to a registry. Optionally specify "ipfs://" or "ipns://" scheme to push image to IPFS.
rename   rename a container
restart  Restart one or more running containers
rm       Remove one or more containers
rmi      Remove one or more images
run       Run a command in a new container. Optionally specify "ipfs://" or "ipns://" scheme to pull image from IPFS.
save     Save one or more images to a tar archive (streamed to STDOUT by default)
start    Start one or more running containers
stats   Display a live stream of container(s) resource usage statistics.
stop     Stop one or more running containers
tag      Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE
top      Display the running processes of a container
unpause Unpause all processes within one or more containers
update  Update one or more running containers
version Show the nerdctl version information
wait    Block until one or more containers stop, then print their exit codes.
```

# Execution workflow – nerdctl run





# Thank you

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