docker run [OPTIONS] IMAGE[:TAG] [COMMAND] [ARGS]

Short summary

Creates a new container from the specified image and runs the command inside it. If no command is given the command specified in the image is used.

Often used OPTIONS

-e **environmentVariable=value**
Pass environment variable into container

-d Runs the container in the background

-i Attaches stdin to the container. Needed for interactive containers.

-t Allocates pseudo-tty. Needed for interactive containers

-P Maps all ports defined in the Dockerfile to ephemeral host ports

-p **hostPort:containerPort**
Maps containerPort to hostPort on the host and makes it accessible

-v **hostDir:containerDir (deprecated, see --mount)**
Mounts a host directory (if hostDir is an absolute path) or a volume otherwise into the location containerDir inside the container

--name **containerName**
Gives the container a non-random string name

--rm Removes the container and anomymous volumes after exit.

--mount **type=bind,source=/hostPath,destination=/containerPath**
Bindmounts a host directory into the container

--mount **type=volume,source=myVolume,destination=/containerPath**
Mounts a named volume into a location in the container. If source is omitted anonymous volumes are generated instead.

--mount **type=tmpfs,destination=/containerPath**
Mounts a tmpfs into a location in the container.

Useful options

--restart **no/on-failure/always/unless-stopped**
Configures if the container is restarted if it stops by itself. Always and unless-stopped restart it on daemon startup as well (unless-stopped only unless it was stopped)

--network **none/bridge/host/networkName/container:containerName**
Configures network to be either none, the host network stack, a custom network, or the network stack of another container.

--entrypoint **["executable", "arg1", "arg2"]**
Overwrites the entrypoint of the image being run.

Examples

Example 1

```
docker run -it --rm ubuntu
```

Creates an ubuntu container and attaches an interactive pseudotty to it. Removes the container once session ends.

Example 2

```
docker run -ti -e "day=monday" alpine
```

Creats an alpine container and attaches interactively. Sets the environment variable $day to "monday" inside.

Example 3

```
docker run -d -e MYSQL_ROOT_PASSWORD=testpw -P mariadb
```

Runs a detached mariadb container with root password testpw and publishes the ports to random ports on the host

Example 4

```
docker run -d -p 80:80 -p 22:22 -v /srv/gitlab/config:/etc/gitlab \
--mount type=tmpfs,destination=/var/log/gitlab \
--mount type=volume,source=gitlab-data,destination=/var/opt/gitlab \
--name gitlab \
gitlab/gitlab-ce
```

Runs a gitlab container that exposes its http and ssh port and mounts the config from the host. The logs into a tmpfs and the data into a named volume.
More info on docker run in the official reference:
https://docs.docker.com/engine/reference/run