

# OPENFAAS - NOOB'S VIEW

BEGINNER FRIENDLY

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# Overview

- **Docker**
- **Prometheus**
- **Openfaas**

# Docker



# docker

- **Creates a (or many) virtual environment called “container”**
- **This environment fully supports particular programs (called “image”) that you want to run**



## Infrastructure:

- **Docker daemon “dockerd”**: manages containers, images, works in the background
- **REST API**: communications between daemon and client
- **Docker client “docker”**: your user interface

# Docker features



# docker

- **Docker Swarm (mode):** helps automatically manage a cluster of Docker Engines
- **Docker registry:** example Docker Hub, storage for images



**Monitors systems in realtime, alerts**



- **Serverless: rent physical hardware servers somewhere, pay the price of consumed resources**
- **Deploy your service as “serverless functions” on a cloud network**
- **Manages workload among nodes automatically, scales automatically (get more resources when more people/computers need to access functions)**

# Openfaas components



OPENFAAS

- **Function Watchdog: an HTTP server, added into your Docker image for it to become a serverless function, helps to build and deploy function**
- **API Gateway: collects data and scale your service (increase number of function replicas), also provides UI**





## Functions as a Service

API Gateway

Function Watchdog



Prometheus



Swarm



Kubernetes



docker

# References

<https://docs.docker.com/engine/>

<https://prometheus.io/>

<https://docs.openfaas.com/deployment/docker-swarm/>

<https://docs.openfaas.com/deployment/troubleshooting/#i-forgot-my-gateway-password>

<https://blog.alexellis.io/first-faas-python-function/>