DOCKER FOR PENTESTERS
NIGHTINGALE

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$WHOAMI

- Security Analyst II at FIS Global.
- Cyber Crime Intervention Officer from ISAC (NSD).
- Synack Red Team Member.
- CTF player
- Always love to play around Networks 

TODAY'S DISCUSSION

- About DOCKER creature.
- Concept of Hypervisor and Docker Containerization
- Start Practical with Docker : echo "Hello World"
- Brief idea project my project : OWASP-Nightingale (Docker for Pentesters)

ABOUT DOCKER

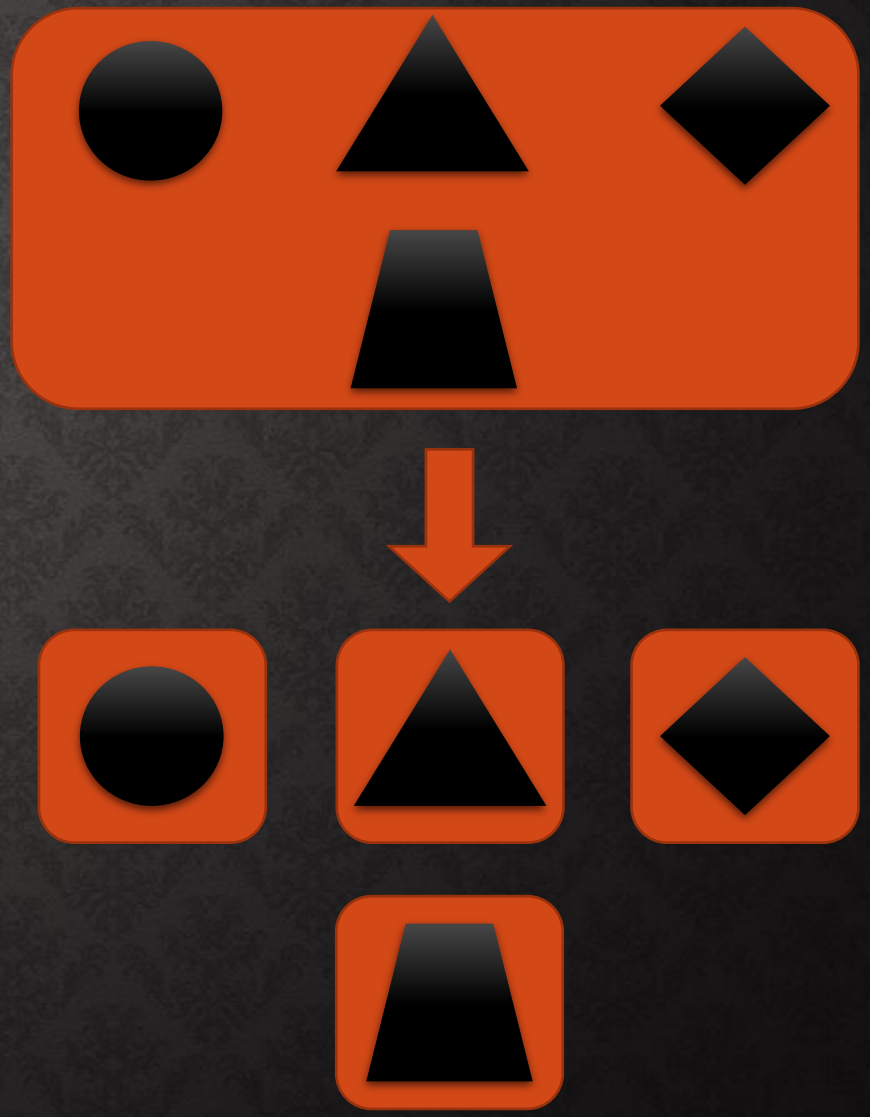
Application Modernization

Issues that Developer face

1. Minor code changes require full re-compile and re-test
2. Complete application can be count as a single point failure
3. Hard to difficult to scale the application on a large scale

Microservices

1. Break Application into separate functionality
2. Scalability is easy
3. Can modify specific service for the specific functionality



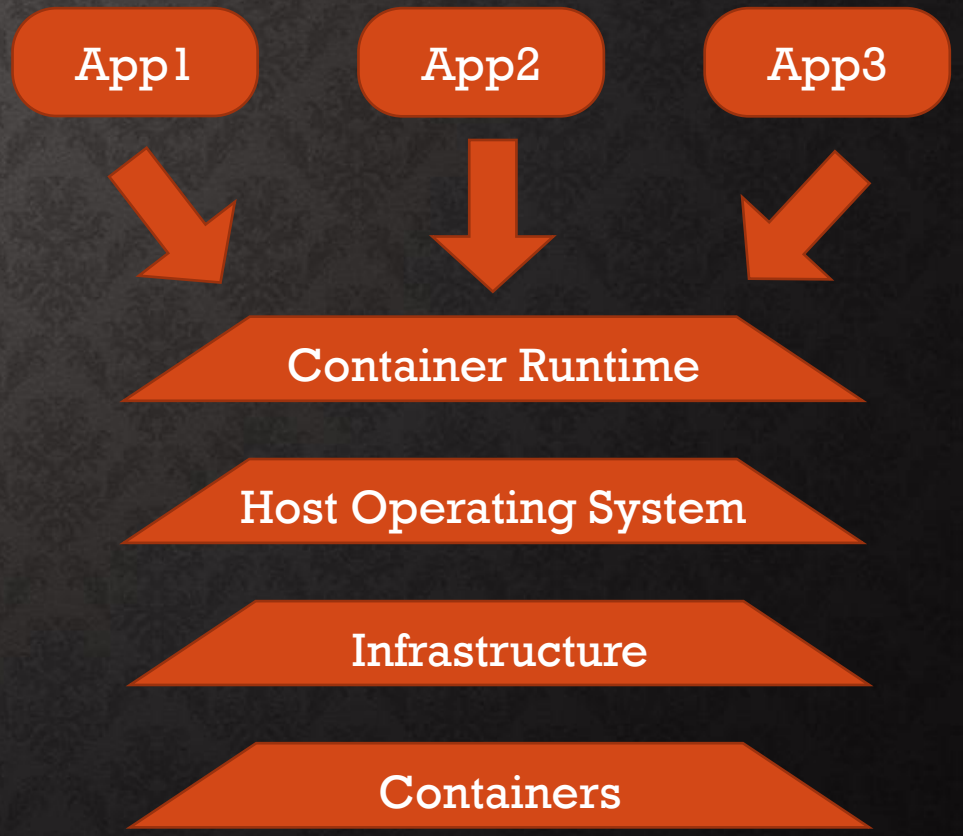
ABOUT DOCKER

Virtualization

An act of making a virtual env for once, it can hardware platforms, storage devices and create a network

Containerization

Making a packaging of the software and it's decencies which isolate from the host machine.



ABOUT DOCKER

2000

FreeBSD Jails
(It came up with service where administrator can create a partition into smaller system : Jails)

2004

Solaris Containers
(It combines system resource and control the cloning process for the system)

LXC
(Linux Containers release first Linux Container Manager with having cgroups and Linux namespaces)

2013
LMCTFY
(**Let me Contain that for you** is open source Google container service which provides Linux Application containers)

2013

Docker
Explode in market and gain so much popularity

Docker goes on and on and on and on 😂

CONCEPT OF HYPERVISOR AND DOCKER CONTAINERIZATION

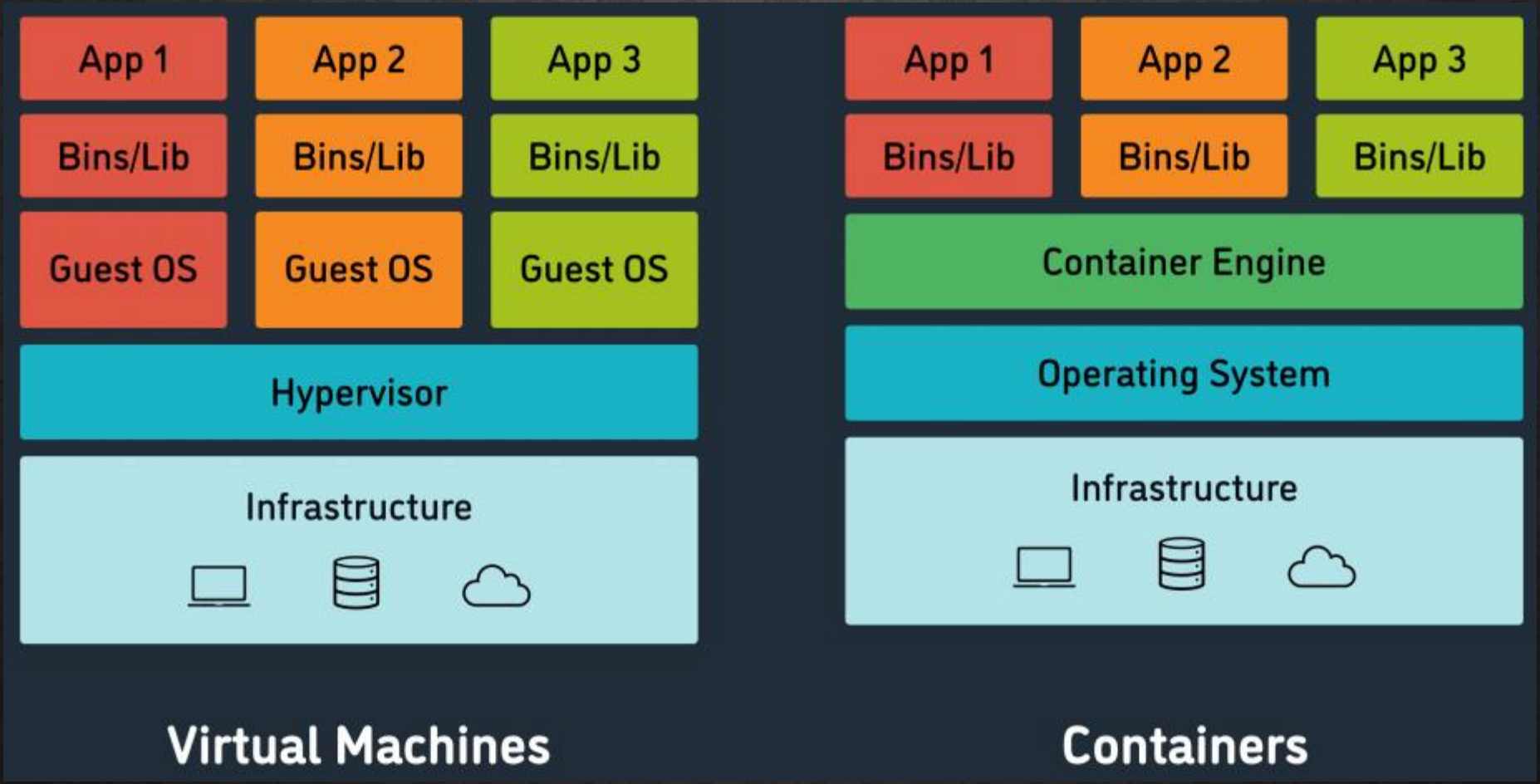


Image Source : https://www.virtasant.com/blog/hypervisors-a-comprehensive-guide

CONCEPT OF HYPERVISOR AND DOCKER CONTAINERIZATION

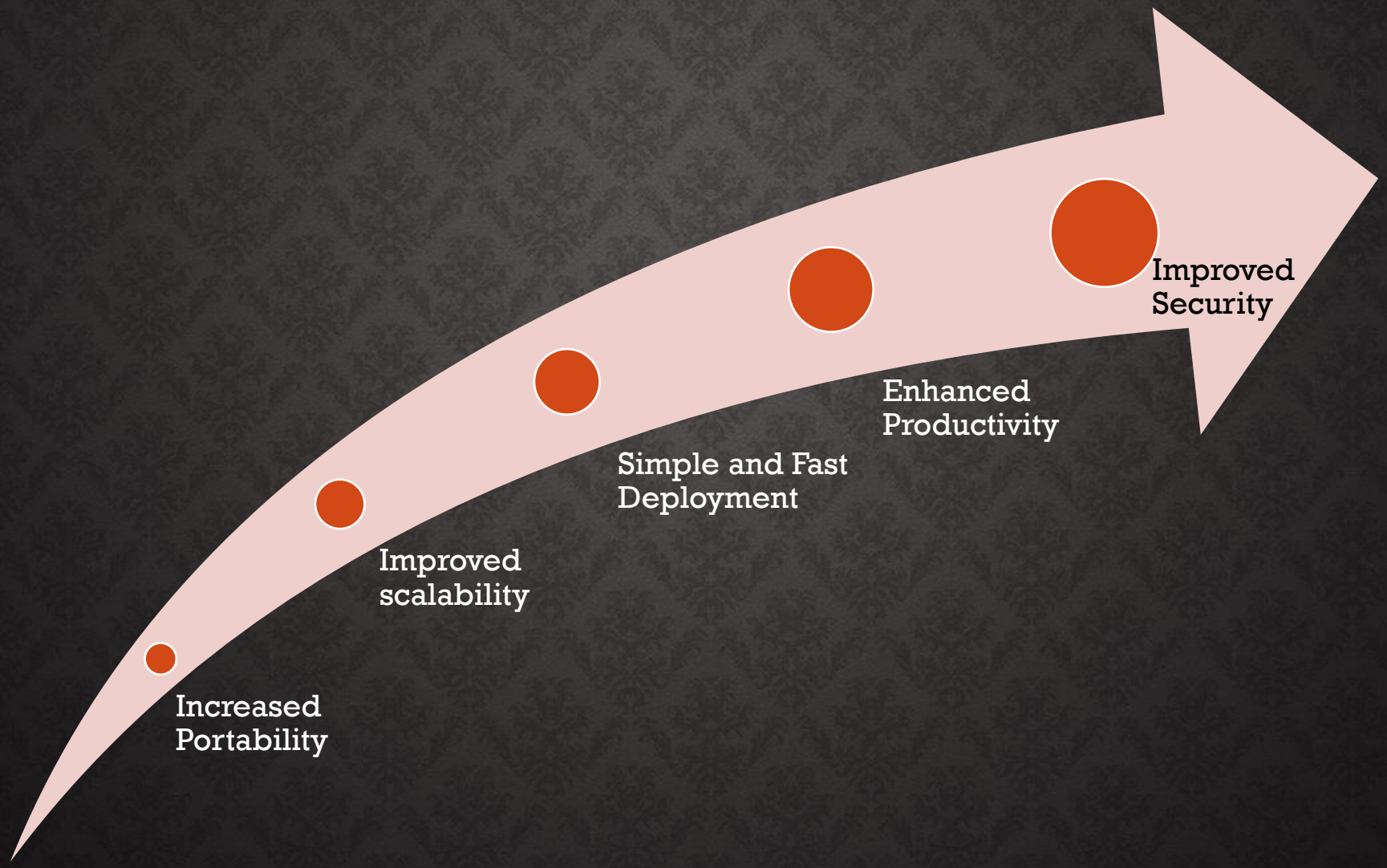
Hypervisor

1. One Physical server can run limited number of sub-servers
2. Better resource pooling
3. VM is cloud
    1. Rapid Elasticity
    2. Pay per use
4. But, Each VM require
    1. CPU allocation
    2. Storage
    3. RAM
5. More number of VM you run, more resource will require to run them

Docker Containerization

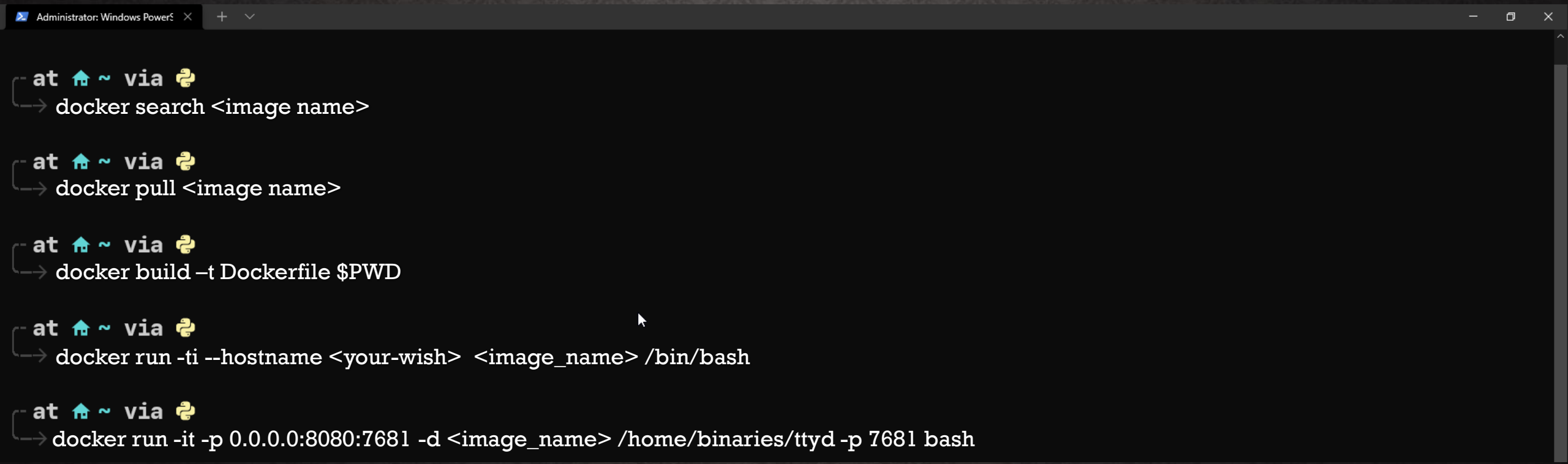
1. No booting process for the Operating System
2. No dependencies over the operating system
3. Easy to run with less then a min.
4. Improvised the OS performance
5. Run as many container for your different application
6. All application are independently run with each other

ADVANTAGE OF DOCKER OVER VIRTUALIZATION




HEY
DOCKER
HOW YOU DOIN?
imgflip.com

COMMON DOCKER COMMANDS



START PRACTICAL WITH DOCKER : ECHO “HELLO WORLD”

BRIEF IDEA PROJECT MY PROJECT : OWASP-NIGHTINGALE (DOCKER FOR PENTESTERS)


THANK YOU