Heroku as our Platform as a Service? (PaaS)

What is a Platform as a Service (PaaS)?

"A cloud-based service that provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching an app."

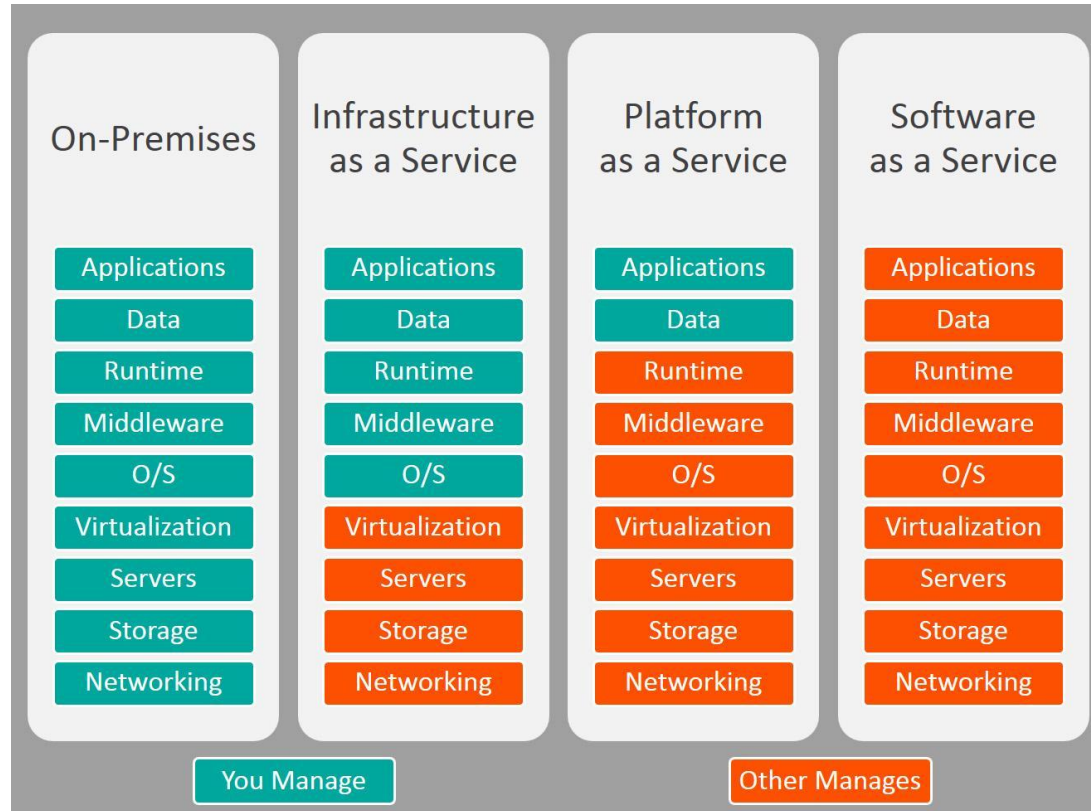# Understanding the Range of Possibilities

On-Premises	Infrastructure as a Service	Platform as a Service	Software as a Service
Applications	Applications	Applications	Applications
Data	Data	Data	Data
Runtime	Runtime	Runtime	Runtime
Middleware	Middleware	Middleware	Middleware
O/S	O/S	O/S	O/S
Virtualization	Virtualization	Virtualization	Virtualization
Servers	Servers	Servers	Servers
Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking

You Manage Other Manages

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PaaS Pros and Cons

Pros	Cons
Simple to setup, maintain and deploy	Hard / impossible to scale to a very large size
Easy to scale to moderate size	Tends to be more expensive than IaaS
Allows developers to focus on apps	Vulnerable to PaaS downtime
Easy creation of dev/test environments	Limitations on configuration

PaaS Providers

- AWS Elastic Beanstalk
- Windows Azure
- Heroku
- Force.com
- Google App Engine
- Apache Stratos
- OpenShift
- PythonAnywhere
- ...and many more.

Why Heroku in this Course?

- Heroku is very easy to use
- We can use one Heroku Dyno for free (ideal for teaching).
- Nice 3rd Party Add on options
- Works with Docker
- Great documentation
- Supports multiple languages