Working with containers and Azure DevOps

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Liam Gulliver

- DevOps Delivery Manager at MMT Digital
- Worked in DevOps or DevOps-like organisations for 15 years
- Was a dev then moved into architecture and then into consultancy
- Transformed and scaled up orgs from 10 to 3000+ employees
- Co-founder and co-organiser of DevOps Notts
- Co-creator and co-host of Agile Engineering Podcast

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GLOBAL DEVOPS

BOOTCAMP

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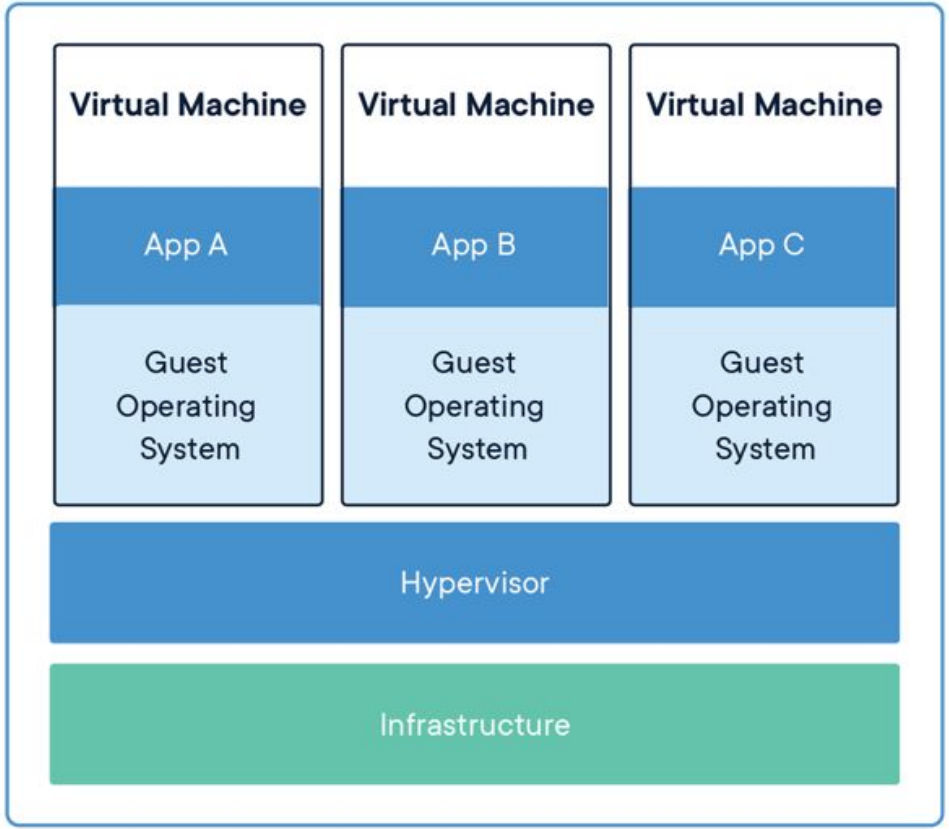
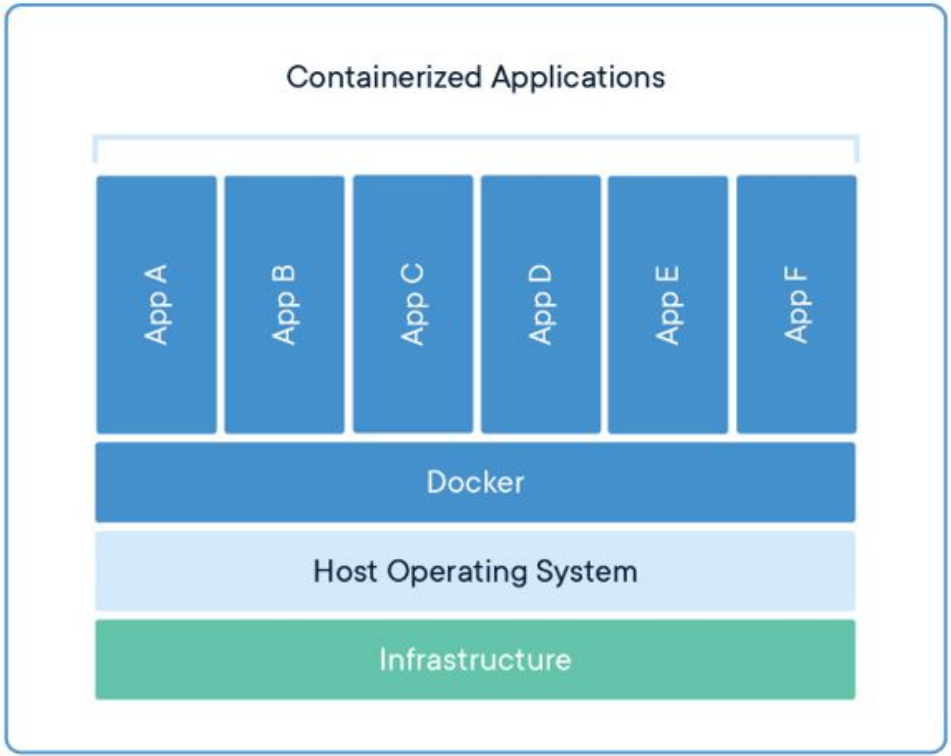
What is Docker?

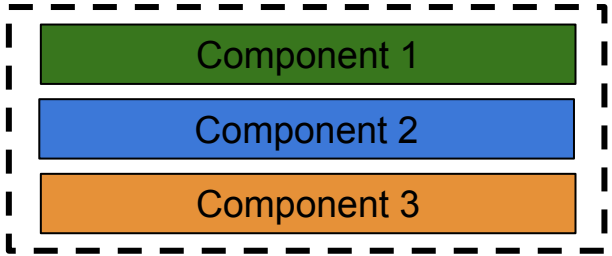
- Abstraction of physical hardware
- Multiple VMs on a single physical machine
- Each VM includes a full copy of the OS, the application and dependencies
- Can be 10s to 100s of GB
- Slow start-up



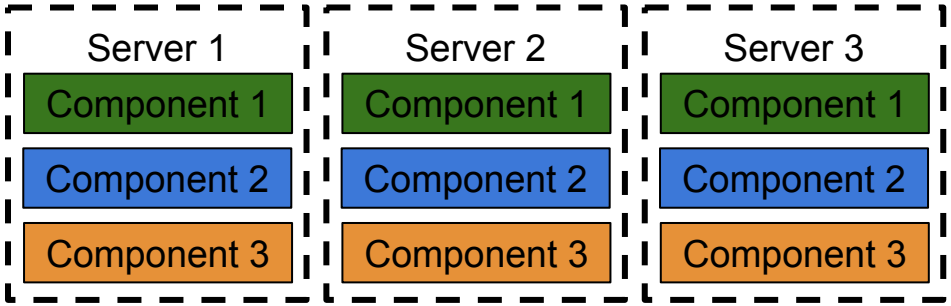
- Abstraction at the app layer
- Share the OS kernel with other containers
- Isolated processes in user space
- Fast start
- Portable
- Immutable



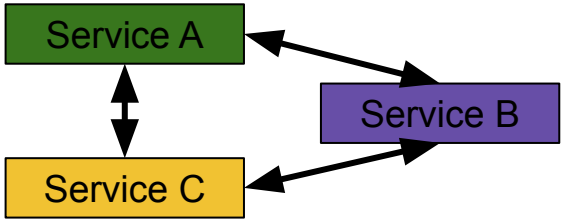
Monolithic Applications



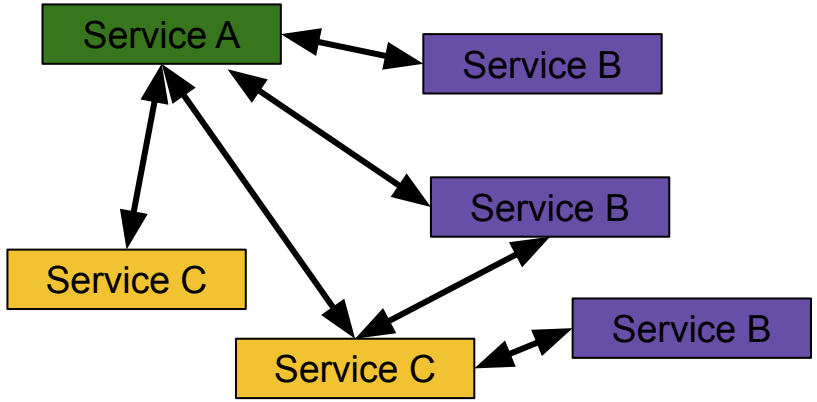
Scaled Monolith

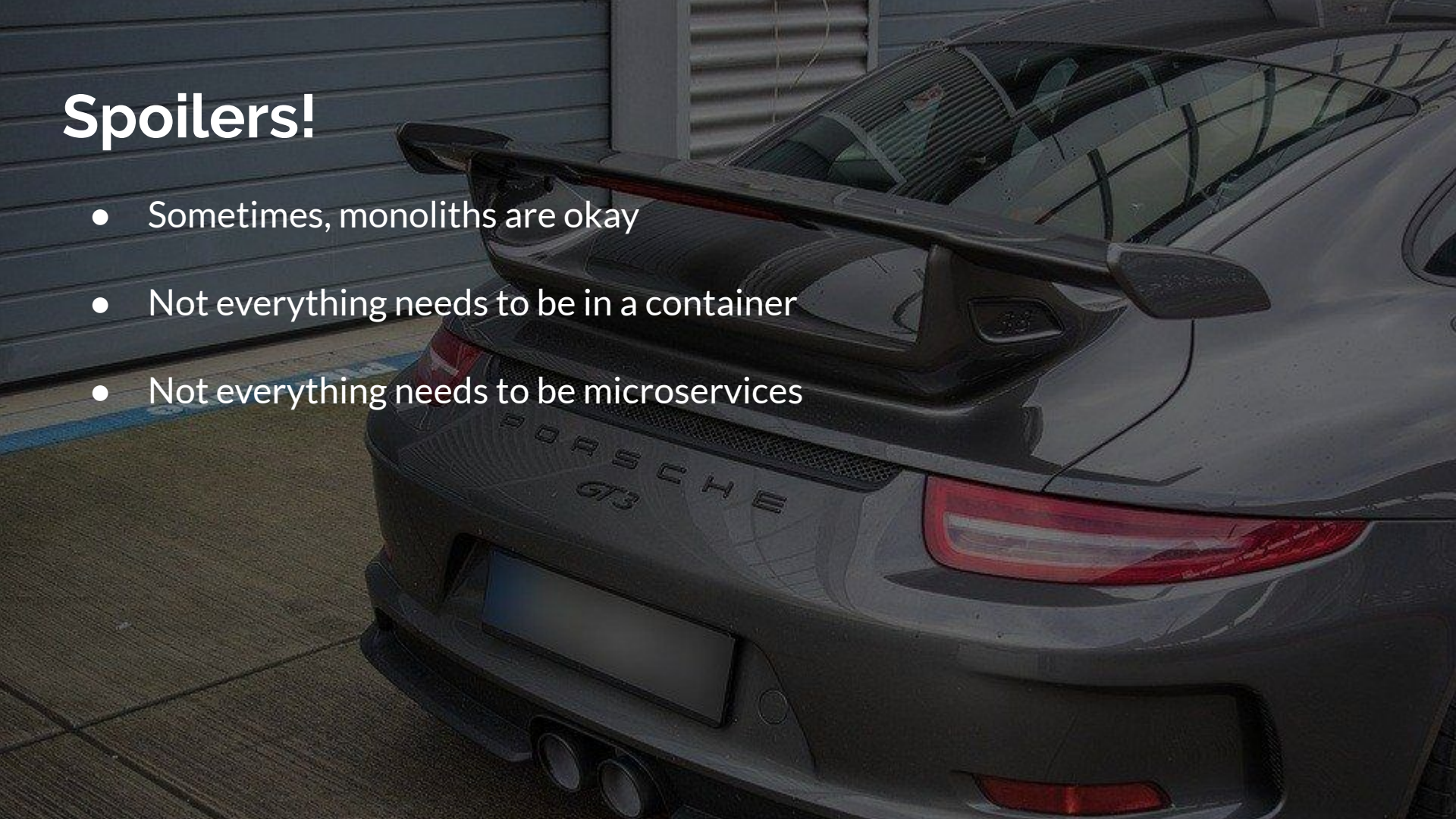


Microservices



Scaled Microservices





Spoilers!

- Sometimes, monoliths are okay
- Not everything needs to be in a container
- Not everything needs to be microservices

What is Azure DevOps?

Azure DevOps

- Application Lifecycle Management tool
- Integrates with *everything*
- Source Control
- Build
- Testing
- Release
- Package feeds
- Open Source and Private

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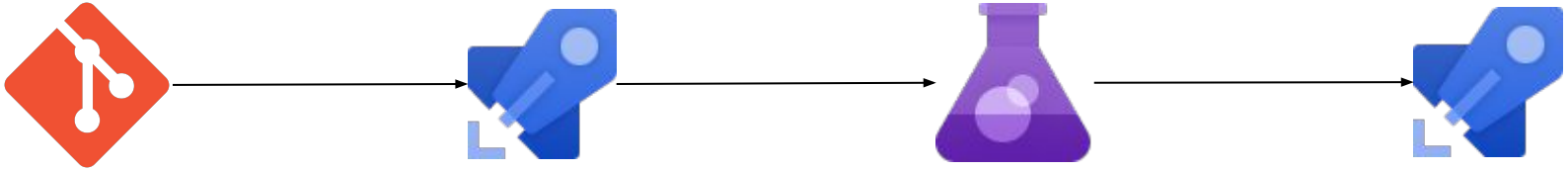
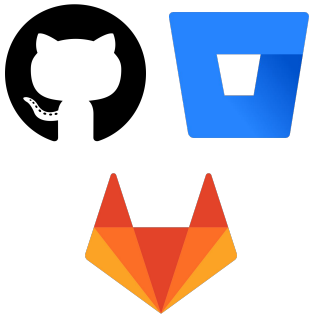


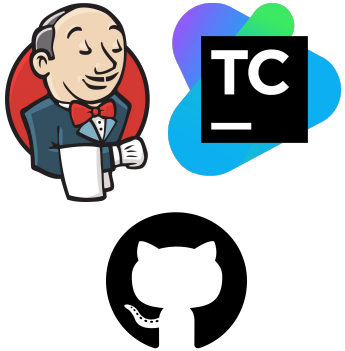
Commit

Build

Test

Deploy

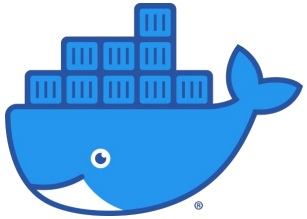




Demo

Commit
to
Github

Build in
Azure
DevOps



Push to
Docker
Hub

Run the
built
image

```
FROM httpd:latest

COPY ./public-html/ /usr/local/apache2/htdocs/

EXPOSE 80
```

Round up

- What is Docker?
- What is Azure DevOps?
- Creating a docker image
- Running a docker image
- Building it in Azure DevOps with a YAML build and publishing to a container registry
- Deploying it to Azure

Thank you

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https://github.com/lgulliver/AzureDevOpsAndContainersDemo