

JOHN SAVILL'S
DEVOPS MASTER CLASS

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AGENDA

- Interaction through the comments in the videos
- Main planned modules:
 - DevOps Foundation
 - Mastering Git
 - Azure DevOps and GitHub tooling
 - CI/CD and pipelines
 - Handling secrets
 - Infrastructure as Code
 - Containers, Kubernetes and images
 - Monitoring
 - GitOps
 - Security

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MASTER CLASS EVOLUTION

- Technology changes
- I will update modules over time
- I will add/remove potentially
- I will reference and link to deeper dives
- Make sure to subscribe and set the notification bell to find out
- Use the [playlist](#)
- [GitHub repo](#) for the code linked from playlist

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MICROSOFT CERTIFICATION?

- This is not focused on any specific certification
- My focus is to teach you DevOps
- However this would help with:

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QUESTIONS?

ASK IN THE
COMMENTS

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FOUNDATION

What is DevOps?
Key concepts
Getting ready!

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DEVOPS IS NOT A SPECIFIC PRODUCT

- Yes, there is a product you can buy called Azure DevOps
- This will be mentioned as a tool you may use
- But DevOps is more than just a single product

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WHAT IS DEVOPS?

DevOps is the union of people,
process, and products
to enable continuous delivery
of value to our end users

Donovan Brown

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BEFORE DEVOPS

- We had the business that wanted to deliver value to the end users
- Developers wanted to create new features through lots of change
- IT Operations wanted to ensure availability and stability which is best assured through minimizing changes

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THE GOAL

- As the name DevOps implies its about bringing the teams together
- In bringing together this will require new processes which is best facilitated through the proper tooling
- It is a continuous cycle to ensure continual delivery of value
- Shift in application architecture and hosting

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WATERFALLS AND BEING AGILE

- Process and the project manager is a big piece of that continuous cycle
- Waterfall used to be very popular as large, dependent phases
- Today more organizations move to [agile](#) mindset
- There are then different frameworks of agile

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KANBAN PIZZA



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GIT AND CI/CD

- Constant, incremental value means new ways of working
- Git for source/version control that enables concurrent development
- Continuous Integration to find bugs, incompatibilities early
- Continuous Delivery and Deployment to deliver the value
- Secret handling

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IMPORTANCE OF MONITORING

- Monitoring is always important to make sure some production system is behaving
- For DevOps almost more important is monitoring of the interactions and user behavior
- New tools and telemetry may be required
- Key Performance Indicators (KPI) definitions

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INFRASTRUCTURE AS CODE

- Self-service is a key aspect to agility
- Do not want to create services via portals
- Infrastructure as Code (IaC) enables your resources to be defined as code
- These are typically declarative and idempotent
- Use in pipelines
- GitOps enables a repository to become the central point of configuration and desired state pulled by infrastructure and deployed

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GETTING READY!

- Get VS Code <https://code.visualstudio.com/>
- Get Git <https://git-scm.com/downloads>
- <https://azure.microsoft.com/en-us/free/>
- <https://github.com/pricing>
- <https://azure.microsoft.com/en-us/pricing/details/devops/azure-devops-services/>

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