



WorkshopPLUS – DevOps Fundamentals

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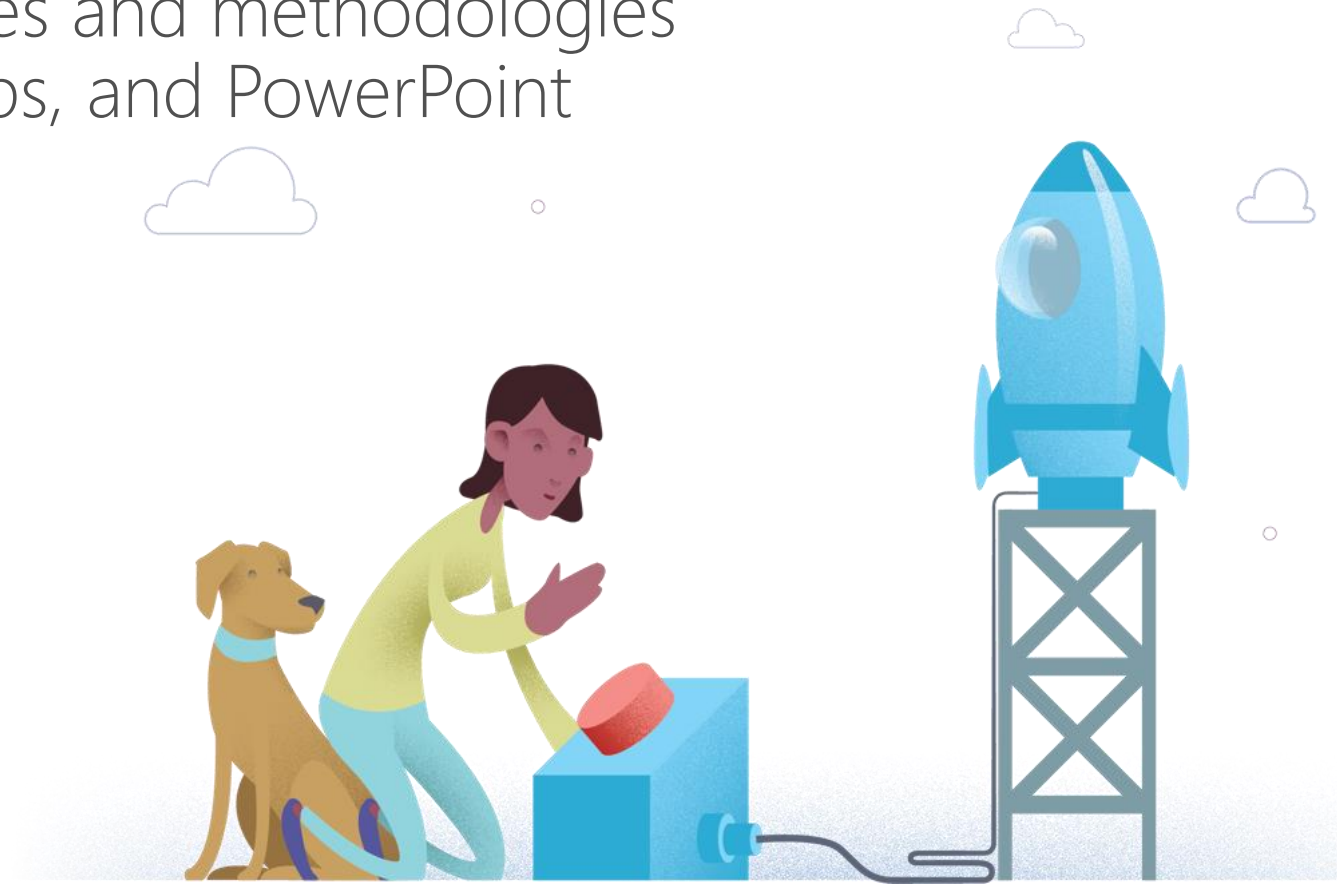
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Course Objectives

- Introduce the **business value** of DevOps to your team and walk-through **essential practices** required for a healthy implementation
- Focus on fundamental practices and methodologies reinforced with discussions, labs, and PowerPoint presentations:
 - Continuous Planning
 - Source Control Strategy
 - Shift-Left Testing
 - Feature Flags
 - Continuous Integration
 - Continuous Delivery
 - Application Monitoring



Course Engagement

- We use a mix of slides, case studies, demonstrations and hands-on labs to fully **illustrate the concepts** the course presents
- Each participant will have access to Learn on Demand that will provide:
 - Microsoft Azure Subscription
 - Azure DevOps Services Access
 - Virtual Machine (Windows 10)
 - Visual Studio Code



Learn on Demand (<https://www.learnondemandsystems.com/>)

Agenda Day 1

Business Value & Case Study

- Introduction to DevOps
- DevOps Adoption Case Study

Planning

- Agile at Scale
- Planning and Tracking Projects

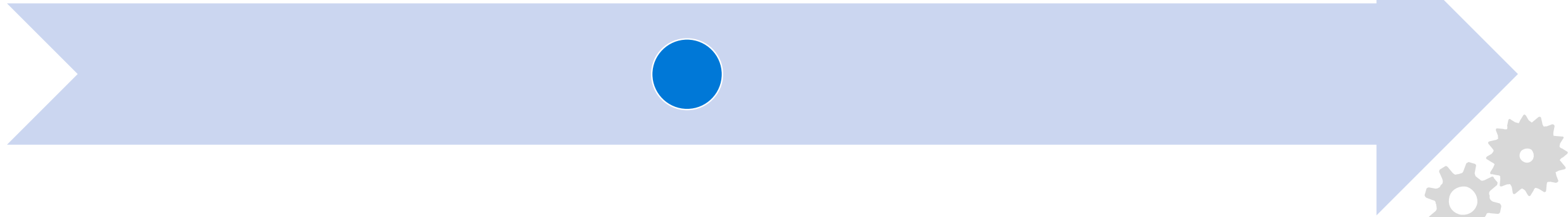
Day 1: The participants act as the **Scrum Master**, **Project Manager**, or **Product Owner**. They will be setting up the Kanban Board, implementing the controls necessary to manage and plan the project's methodology, and implementing delivery planning.



Agenda Day 2

Development and Test

- Source Control Management
- Shift Left Testing
- Feature Flag Development
- Build Management



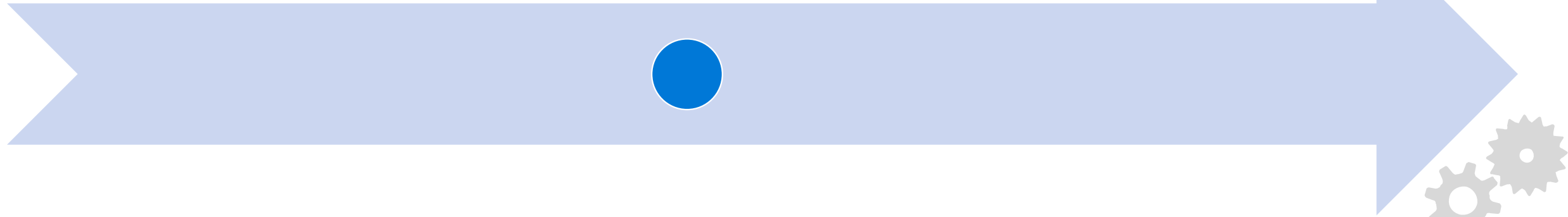
Day 2: Participants act as the **Application Developer**. They will be setting up the .NET core project, containerizing the application, learning to use a source control strategy, implementing shift-left testing, designing for testability, and implementing feature flags.



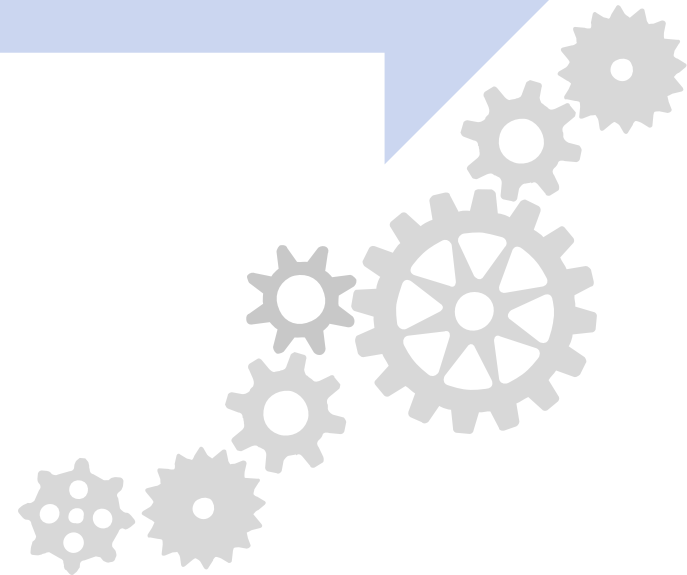
Agenda Day 3

Release

- Infrastructure as Code (IaC)
- Continuous Integration



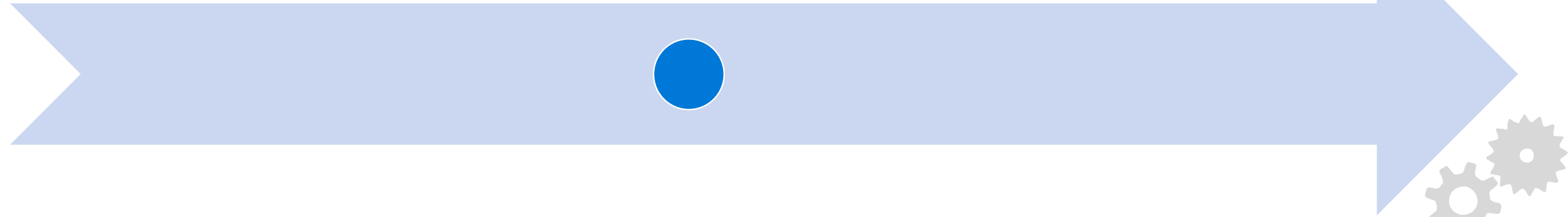
Day 3: Participants act as **Engineering**, or **Architect**. They will be setting up the resources necessary to deploy the application. SQL Servers, Azure Container Registry and Repositories, and implementing Infrastructure as Code.



Agenda Day 4

Learn

- Continuous Delivery
- Application Monitoring



Day 4: Participants act as **all roles**. They will be working with the Application Developer who will implement Application Monitoring. Then they will review the data from the application, use validated learning, and create items on the backlog.

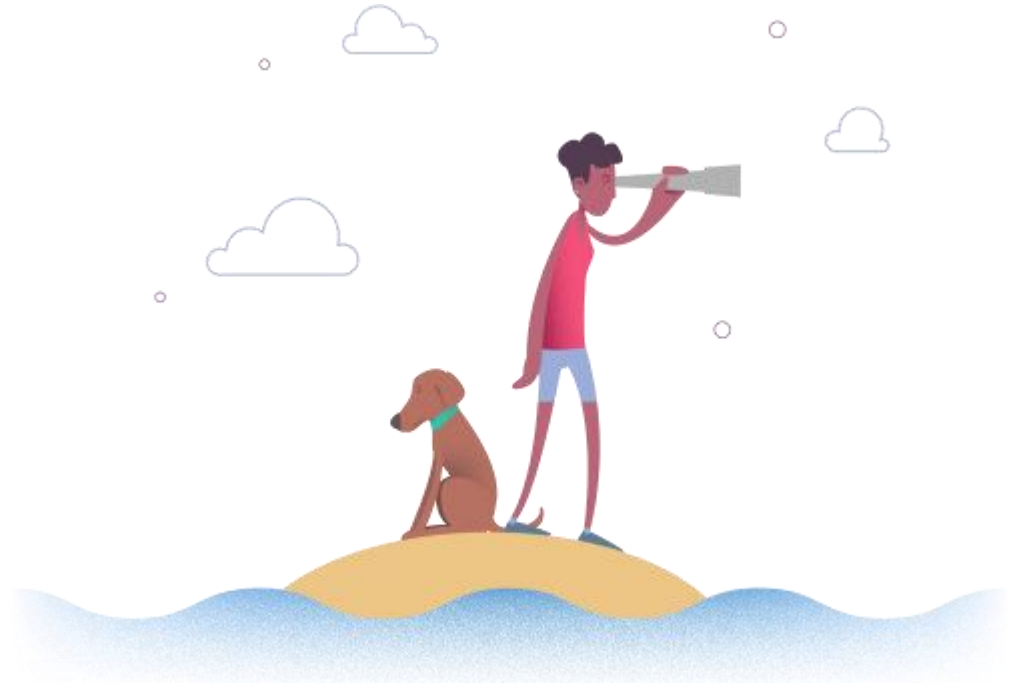


Connecting to Learn on Demand

- Using the desktop version of Edge or Chrome and navigate to <https://aka.ms/LearningCampus>
- Sign in with your Microsoft Account (Live ID). If you do not have one, you can create one here: <http://live.com>.
- Don't have to use an account from live.com. You can use your own personal account.
- Click "Redeem Training Key", then click on register the lab code. This will be sent to all participants in an email.
- For **state** or **federal agencies**, please do not use your .gov or .<state> issued email. Please use your private email or create a new at <http://live.com>

Using Learn on Demand

- Participants will receive a demonstration of LOD
- Participants will also be acclimated to the Windows 10 VM through the demonstration
- Lab material will be on the virtual machine
- Lab instructions will be delivered through the LOD system



Conclusion

- The labs are progressive and require that each lab is completed in succession
- Necessary to build up planning then execute the planning through a real working project, for example using feature flags
- Greatly enhances the overall perspective for a true DevOps implementation

Questions? Comments? Suggestions?



