DevOps and ALM for Cloud Applications –DEMOS

# Source Control

Requirement: Visual Studio 2013 or higher, a Visual Studio Team Services Subscription

Description: Demo Visual Studio Source Control Capabilities and Integration with GitHub and VS Team Services

Demo Time Estimation: 10 Minutes

What to demo:

1. Start by showing how to create a Team Project in VS Team Services and Visual Studio
2. Comment about Project Templates, and choose a Scrum Template
3. Create Work Items, Assign Backlog Items to the Current Spring, Show Kanban Board
4. On Visual Studio, show Source Control Integration with Git
   * Git is a [free and open source](http://www.git-scm.com/about/free-and-open-source) distributed version control system designed to handle everything from small to very large projects with speed and efficiency.
5. On Visual Studio and VS Team Services, show Source Control with Visual Studio Online
   * You can use Team Foundation Version Control (TFVC) to scale from small to large projects, and by using [server workspaces](https://msdn.microsoft.com/en-us/library/bb892960.aspx), you can scale up to very large codebases with millions of files per branch and large binary files. TFVC is a centralized version control system that lets you apply [granular permissions](https://msdn.microsoft.com/en-us/library/ms252587.aspx) and restrict access down to a file level
6. End by saying this session does not focus on source control, as this is relatively simple

Reference Video:

* TFS: [Managing Source Code with Team Foundation Version Control](https://channel9.msdn.com/Series/Fundamentals-of-Visual-Studio-Online/05)
* Git: [Managing Source Code with Git in Visual Studio Online](https://channel9.msdn.com/series/Fundamentals-of-Visual-Studio-Online/04)
* Git: <https://channel9.msdn.com/Series/ConnectOn-Demand/217>

# Load Test in the cloud

Requirement: Visual Studio Enterprise 2013 or higher, Visual Studio Team Services and Azure Subscription

Description: Demo Cloud Load Test with Visual Studio Services and Azure

Demo Time Estimation: 15 Minutes

What to demo:

* Show how to Create Web and Load Tests
* Load test with Visual Studio and Visual Studio team Services
  + Run and analyze your load test inside Visual Studio Ultimate
    - [Follow this step by step](https://www.visualstudio.com/get-started/test/load-test-your-app-vs)
  + Run and analyze your load test inside you Visual Studio Team Services
    - Use the quick wizard on your tenant. {yourtenant.visualstudio.com/\_LoadTest}
    - You need to be logged with a MSDN Account

Reference Video/Demo Set up:

* Overview: [Cloud Loading Testing in Visual Studio Team Services](https://channel9.msdn.com/events/Visual-Studio/Connect-event-2015/Cloud-Loading-Testing-in-Visual-Studio-Team-Service)
* Overview: [Cloud-Based Load Tests with Visual Studio Online](https://channel9.msdn.com/Series/Fundamentals-of-Visual-Studio-Online/07)
* How to: [Load test your app in the cloud](https://www.visualstudio.com/get-started/test/load-test-your-app-vs)

# Release management and ci

Requirement: Visual Studio 2013 or higher, Visual Studio Online and Azure Subscriptions

Description: Demo Continuous Integration with Release Management for Azure App Service and Azure Cloud Service

Demo Time Estimation: 15 Minutes

What to Demo:

* Demonstrate how to Create a Build Definition, explain how you can compile, build and test all your source
* Show how to trigger build
* Explain the relationship between Build and Release Management (RM)
* Explain RM Approval Processes
* Show how to publish to Azure Web App Deployment Slots via Release Template
* Show GitHub integration for Build

Reference Video/Demo Set up:

* Overview: [The High of Release: Professional DevOps with Visual Studio 2015 Build & Release](https://channel9.msdn.com/events/FutureDecoded/Future-Decoded-2015-UK/15)
* Overview: [Visual Studio Release Management for Azure VMs](https://azure.microsoft.com/en-us/blog/visual-studio-release-manager-for-azure-vms/)
* How To: [Web - Release Management - Deploying your applications to Azure](https://msdn.microsoft.com/en-us/Library/vs/alm/Release/getting-started/deploy-to-azure)

# Azure Resource manager

Requirement: Visual Studio 2013 or higher, Visual Studio Online and Azure Subscriptions

Description: Introduce Azure Resource Manager and demo how to use visual studio to create Resource Templates

Demo Time Estimation: 10 Minutes

What to Demo:

* Demonstrate in the Azure Portal, what a Resource group is
* Demonstrate the Visual Studio ARM Template
* Show JSON File and Parameters
* Highlight how define this infrastructure define as a code
* Publish a SQL Database to Azure
* Show the site <http://resources.azure.com>
* Briefly overview the Release Management integration with ARM. [Illustrate here](http://blogs.msdn.com/b/visualstudioalm/archive/2015/10/04/automating-azure-resource-group-deployment-using-a-service-principal-in-visual-studio-online-build-release-management.aspx)
* Optional, demonstrate RBAC on the new Azure Portal
* “> .\Deploy-AzureResourceGroup.ps1 -ResourceGroupLocation 'West US' -TemplateFile ..\Templates\LoadBalancedVirtualMachine.json -TemplateParametersFile ..\Templates\LoadBalancedVirtualMachine.param.dev.json -StorageAccountName myStorageAccount -UploadArtifacts true”

Reference Video/Demo Set up:

* Overview: [Azure Resource Manager and Azure Resource Templates](channel9.msdn.com/Events/FutureDecoded/Future-Decoded-2015-UK/16?ocid=SessionsInEvent)
* How To: [Azure Resource Group for Visual Studio](https://azure.microsoft.com/en-us/blog/azure-resource-manager-2-5-for-visual-studio/)
* How To: [Automating Azure Resource Group deployment using a Service Principal in Visual Studio Online: Build/Release Management](http://blogs.msdn.com/b/visualstudioalm/archive/2015/10/04/automating-azure-resource-group-deployment-using-a-service-principal-in-visual-studio-online-build-release-management.aspx)

# application insights

Requirement: Visual Studio 2013 or higher, Visual Studio Online and Azure Subscriptions

Description: Demo Application Insights, How to enable it to a Web Application

Demo Time Estimation: 10 Minutes

What to Demo:

* Show how to create an Applications Insights on Azure Portal
* On Visual Studio, Show Options on Creation New Project, Add to Existing Project, and NuGet Packaged
* Go to App Insights > Performance > ‘GET Home/Index’ > Request > 6:19 > SQL Server
* Show how to Enable App Insight for Web App > Go to Tool > Extensions > Add ‘App Insights’
* Show ApplicationInsights.config
* Show JavaScript Code to track user navigation
* Go back to Azure Portal, navigate through App Insights Reports

Reference Video/Demo Set up:

* Overview: [Application Insights 101](https://channel9.msdn.com/series/Fundamentals-of-Visual-Studio-Online/08)
* How To: [Application Insights for ASP.NET](https://www.visualstudio.com/en-us/get-started/insights/app-insights-asp-net)