





Microsoft Services



Activate Azure with DevOps

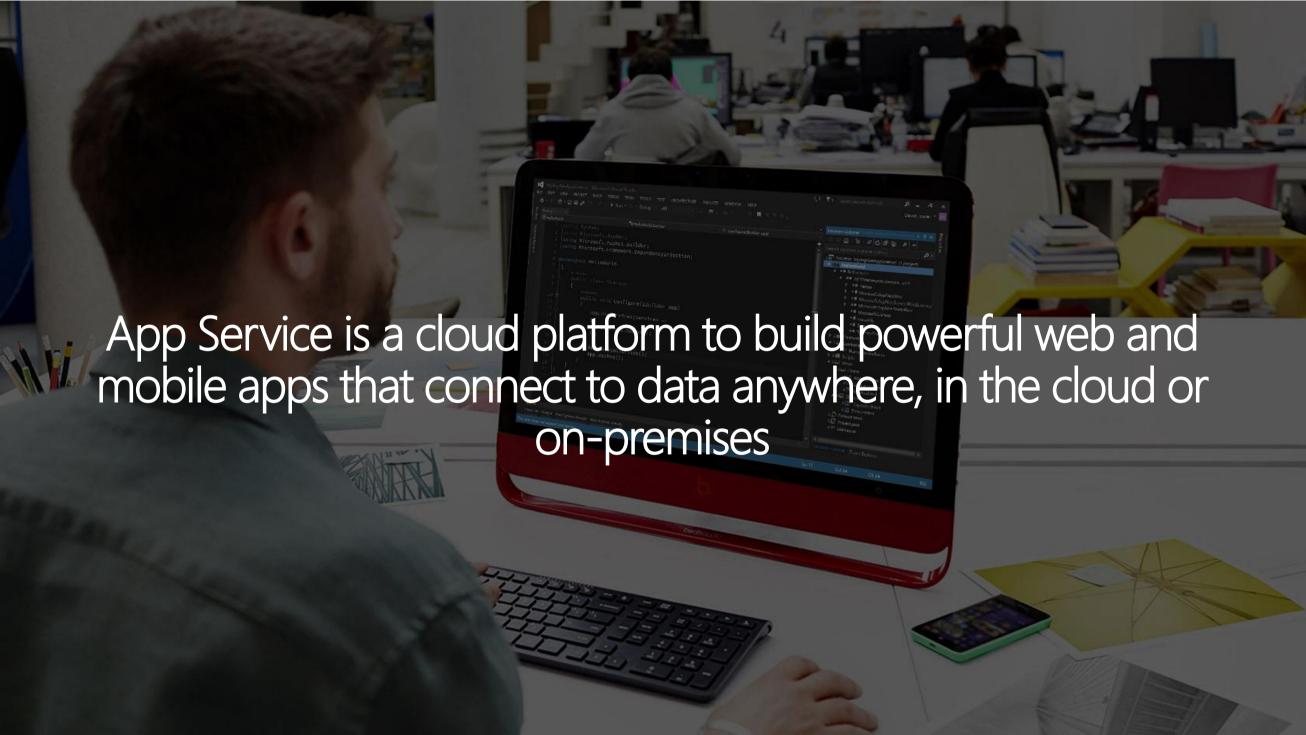
Module 4: Introduction to Azure Web Apps



Objectives

After completing this learning unit, you will understand:

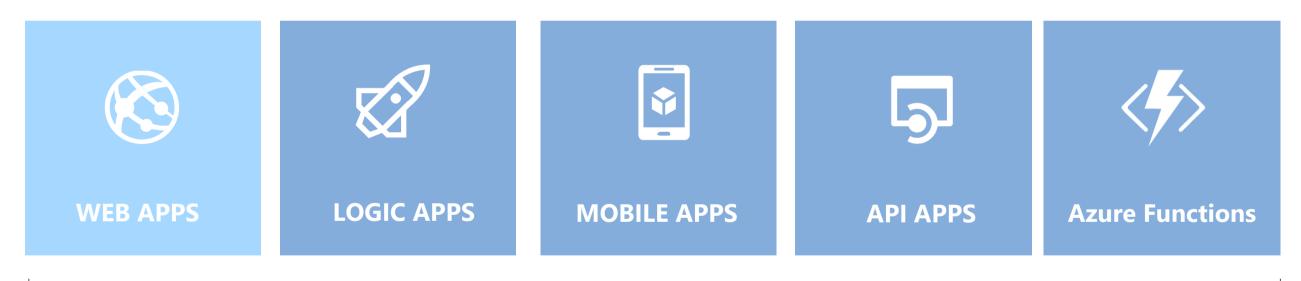
- Azure App Service Plan
- Azure Web Apps
- Deploying Applications
- Monitoring Application
- Scaling Applications



Azure Web Apps

What are Azure Web Apps?

- A modern web based service that is hosted in the Azure cloud
- Allows you to build and publish applications to Azure rapidly
- It is part of the family of Azure App Services offerings...





What do Azure Web Apps provide?



Multiple languages and frameworks Support for .NET, Node.js, PHP, Java and Python platforms



Global scale with high availability
Built-in AutoScale and Load Balancing with Auto-Patching features



Connections to SaaS platforms and on-premises data



DevOps optimization Continuous Deployment with Git, TFS, GitHub



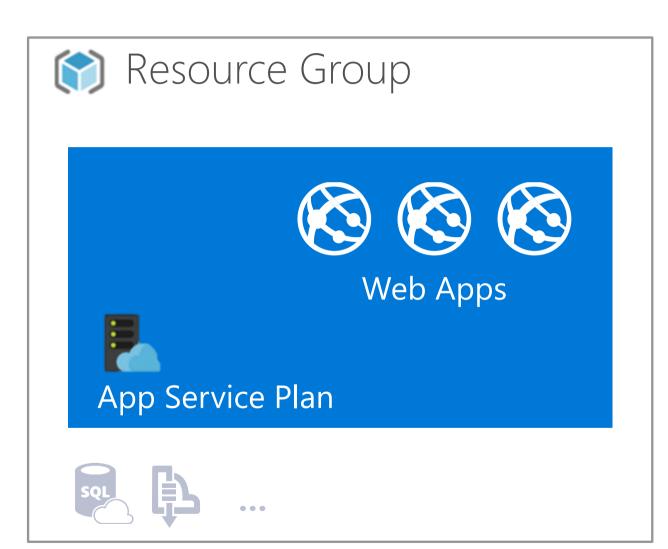
Security and compliance



Visual Studio integration

App Service Plans

- Supports the several Azure Web app pricing tiers
- Web apps need to be in the same subscription and region to share an app service plan
- A web app can only be associated with one app service plan
- All web apps that use the same app service plan will be placed on the same resource hardware
- You can have multiple app service plans in a single resource group to allow for different capacity needs



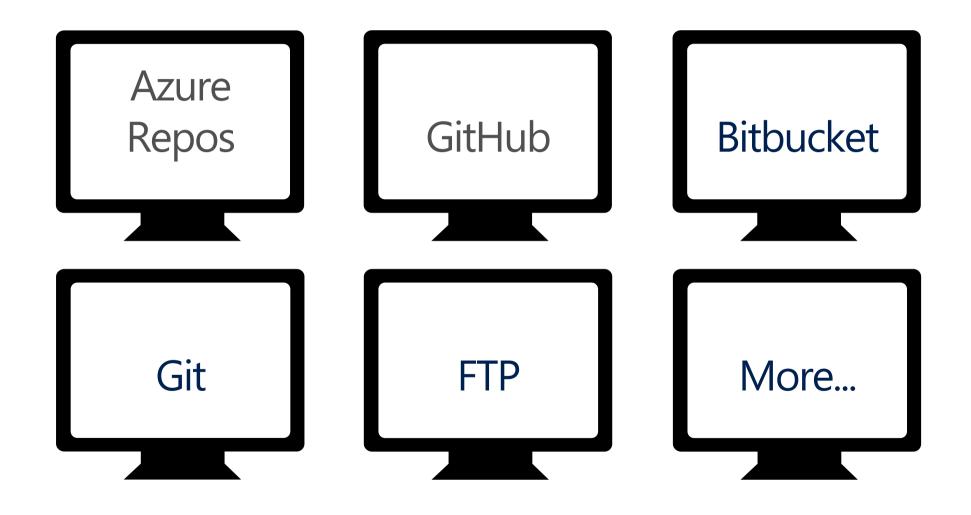
Demonstration: Web Apps

Create a new Azure App Service and Web App, explore the features available



Deploying Applications

Supported Deployment Methods



Staged Deployment

- Deploy your website to a separate deployment slot instead of the default production slot
- Available in the Standard or Premium app service plan
- Swap the sites and site configurations between two deployment slots, including the production slot
- Benefits:
 - You can validate website changes in a staging deployment slot before swapping it with the production slot
 - o After a swap, the slot with previously staged site now has the previous production site
 - Deploying a site to a slot first and swapping it into production ensures that all instances of the slot are warmed up before being swapped into production
 - Four deployment slots in addition to the production slot are supported for each website in the Standard plan
 - 19 deployment slots in addition to the production slot are supported for each website in the Premium plan

Configuration for Deployment Slots

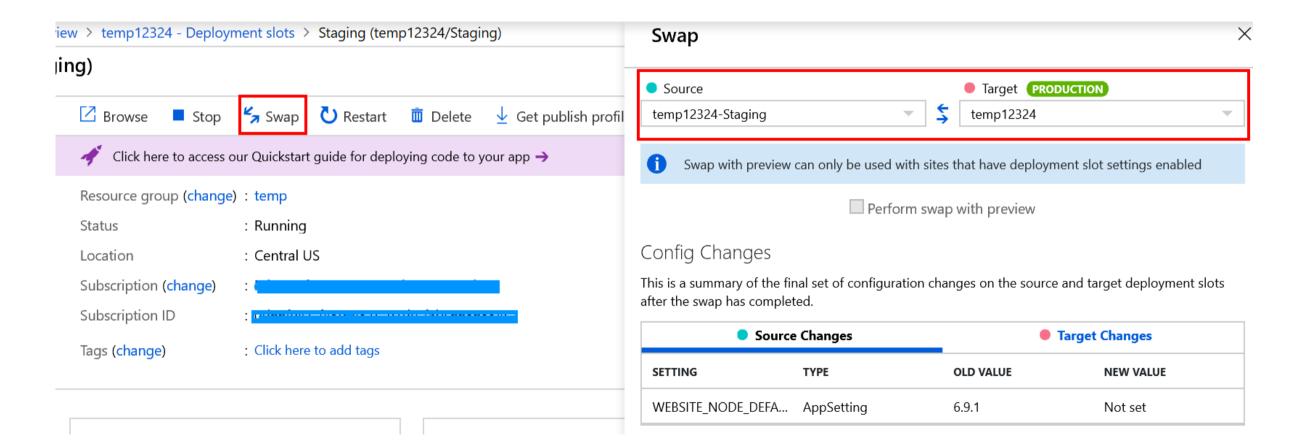
Settings that are swapped:

- General settings such as framework version, 32-bit / 64-bit, Web sockets
- App settings (can be configured to stick to a slot)
- Connection strings (can be configured to stick to a slot)
- Handler mappings
- Monitoring and diagnostic settings
- WebJobs content

Settings that are not swapped:

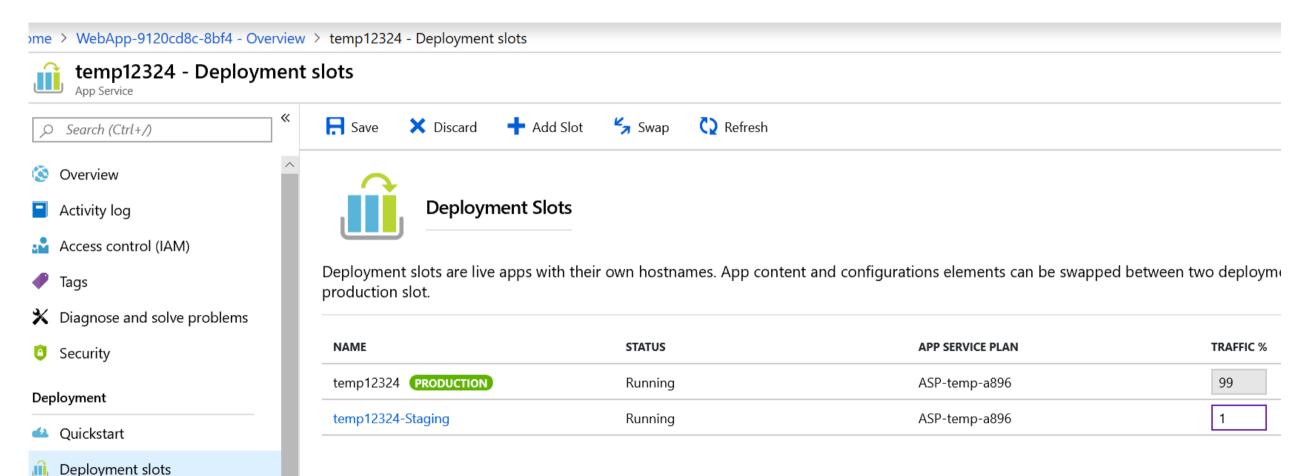
- Publishing endpoints
- Custom Domain Names
- SSL certificates and bindings
- Scale settings
- WebJobs schedulers

Swapping Deployment Slots



Testing in Production

Deployment Center



Demonstration: Deployment Slots

Configure a deployment slot for a staging environment, perform swap and rollback operations



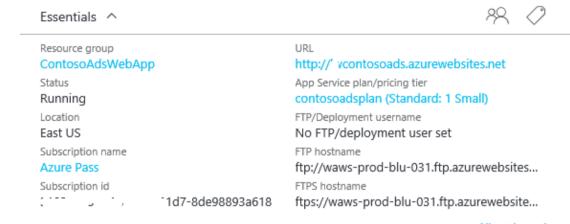
Demonstration: Publishing Profiles

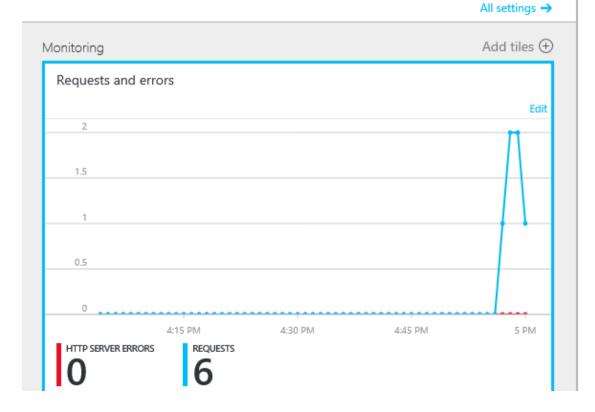
Obtain publishing profiles from Web Apps, create deployment packages in Visual Studio

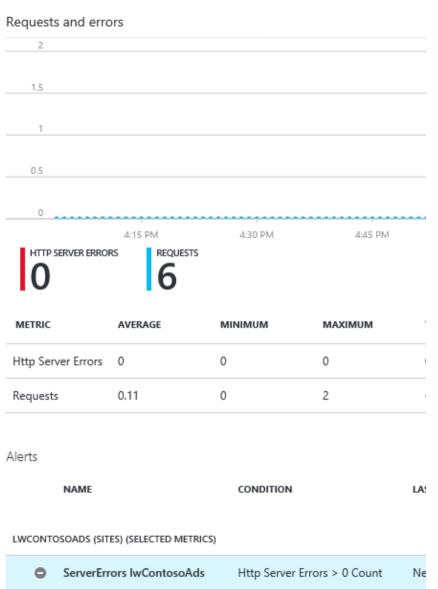


Monitoring Applications

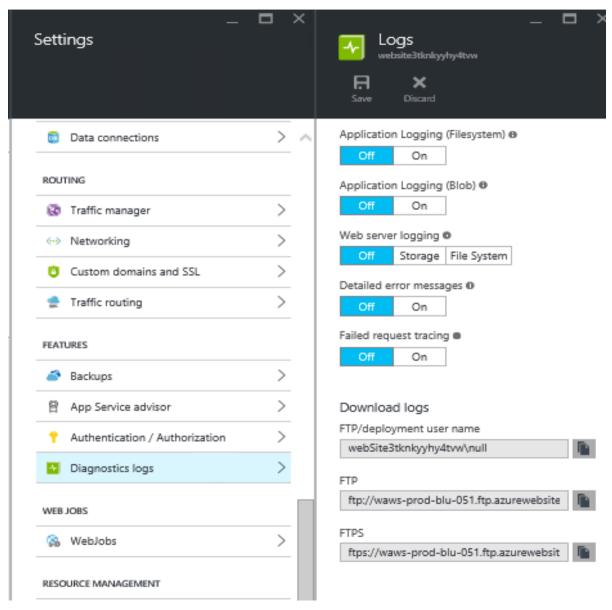
Performance Monitoring in Azure Portal



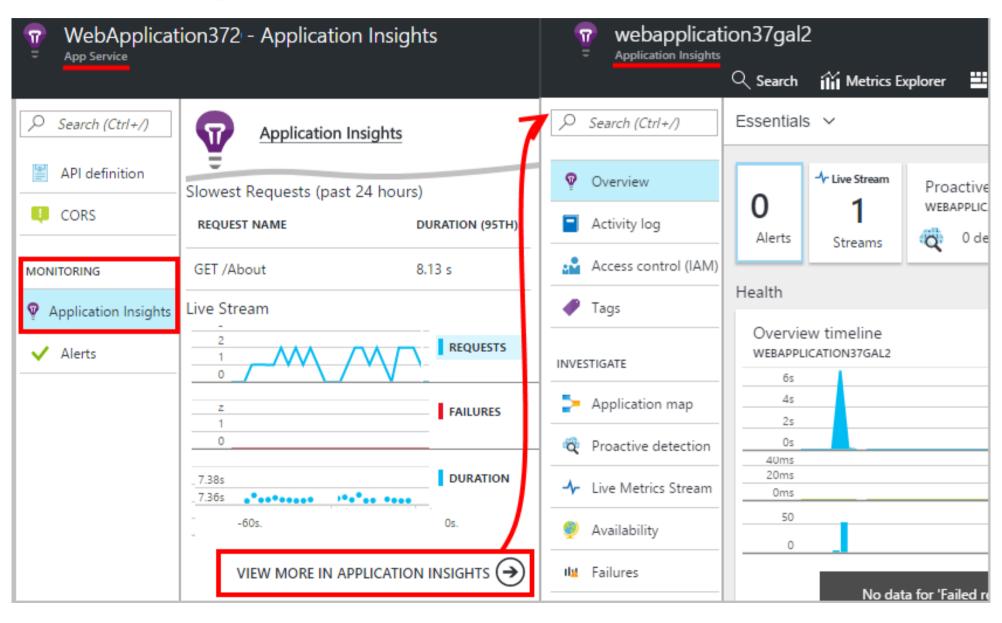




Diagnostics Logging



Application Insights



Demonstration: Monitor and Learn

Review monitoring and diagnostic options, configure Application Insights



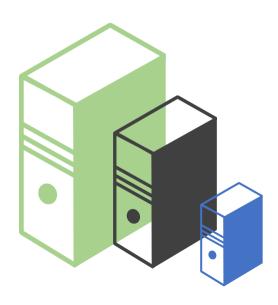
Scaling Applications

Compute Scaling

Scale Up

Vertical Scaling

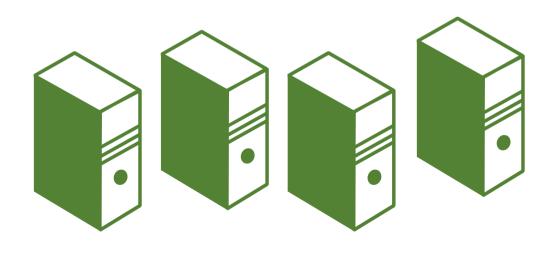
Increase resources capacity within existing node



Scale Out

Horizontal Scaling

Increase resources capacity by adding nodes



Scaling an App Service Plan

• Change the plan's **pricing tier**. For example, changing from a **Basic** tier to a **Standard** or **Premium** tier

- Change the plan's instance size, as an example a plan in the Basic tier using small instances can be changed to use large instances
- Change the plan's instance count. Ex. a Standard plan scaled out to 3 instances can be scaled to 10 instances, and a Premium plan can be scaled out to 50 instances (under some restrictions)

Demonstration: Auto Scaling

Configure automatic scaling based on CPU percentage



Lab: Web Apps

Publish a web app to Azure with Visual Studio Code

Lab found in the shared content

