**Quickstart: Create App Service app using an ARM template**

* Article
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Get started with [Azure App Service](https://docs.microsoft.com/en-us/azure/app-service/overview) by deploying a app to the cloud using an Azure Resource Manager template (ARM template) and [Azure CLI](https://docs.microsoft.com/en-us/cli/azure/get-started-with-azure-cli) in Cloud Shell. Because you use a free App Service tier, you incur no costs to complete this quickstart.

An [ARM template](https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/overview) is a JavaScript Object Notation (JSON) file that defines the infrastructure and configuration for your project. The template uses declarative syntax. In declarative syntax, you describe your intended deployment without writing the sequence of programming commands to create the deployment.

If your environment meets the prerequisites and you're familiar with using ARM templates, select the **Deploy to Azure** button. The template will open in the Azure portal.

Use the following button to deploy on **Linux**:

Use the following button to deploy on **Windows**:

**Prerequisites**

If you don't have an [Azure subscription](https://docs.microsoft.com/en-us/azure/guides/developer/azure-developer-guide#understanding-accounts-subscriptions-and-billing), create a [free account](https://azure.microsoft.com/free/?ref=microsoft.com&utm_source=microsoft.com&utm_medium=docs&utm_campaign=visualstudio) before you begin.

**Review the template**

The template used in this quickstart is from [Azure Quickstart Templates](https://azure.microsoft.com/resources/templates/app-service-docs-windows). It deploys an App Service plan and an App Service app on Windows. It's compatible with .NET Core, .NET Framework, PHP, Node.js, and Static HTML apps. For Java, see [Create Java app](https://docs.microsoft.com/en-us/azure/app-service/quickstart-java).

JSONCopy

{

"$schema": "https://schema.management.azure.com/schemas/2019-04-01/deploymentTemplate.json#",

"contentVersion": "1.0.0.0",

"parameters": {

"webAppName": {

"type": "string",

"defaultValue": "[concat('webApp-', uniqueString(resourceGroup().id))]",

"minLength": 2,

"metadata": {

"description": "Web app name."

}

},

"location": {

"type": "string",

"defaultValue": "[resourceGroup().location]",

"metadata": {

"description": "Location for all resources."

}

},

"sku": {

"type": "string",

"defaultValue": "F1",

"metadata": {

"description": "The SKU of App Service Plan."

}

},

"language": {

"type": "string",

"defaultValue": ".net",

"allowedValues": [

".net",

"php",

"node",

"html"

],

"metadata": {

"description": "The language stack of the app."

}

},

"helloWorld": {

"type": "bool",

"defaultValue": false,

"metadata": {

"description": "true = deploy a sample Hello World app."

}

},

"repoUrl": {

"type": "string",

"defaultValue": "",

"metadata": {

"description": "Optional Git Repo URL"

}

}

},

"variables": {

"appServicePlanPortalName": "[concat('AppServicePlan-', parameters('webAppName'))]",

"gitRepoReference": {

".net": "https://github.com/Azure-Samples/app-service-web-dotnet-get-started",

"node": "https://github.com/Azure-Samples/nodejs-docs-hello-world",

"php": "https://github.com/Azure-Samples/php-docs-hello-world",

"html": "https://github.com/Azure-Samples/html-docs-hello-world"

},

"gitRepoUrl": "[if(bool(parameters('helloWorld')), variables('gitRepoReference')[toLower(parameters('language'))], parameters('repoUrl'))]",

"configReference": {

".net": {

"comments": ".Net app. No additional configuration needed."

},

"html": {

"comments": "HTML app. No additional configuration needed."

},

"php": {

"phpVersion": "7.4"

},

"node": {

"appSettings": [

{

"name": "WEBSITE\_NODE\_DEFAULT\_VERSION",

"value": "12.15.0"

}

]

}

}

},

"resources": [

{

"type": "Microsoft.Web/serverfarms",

"apiVersion": "2020-06-01",

"name": "[variables('appServicePlanPortalName')]",

"location": "[parameters('location')]",

"sku": {

"name": "[parameters('sku')]"

}

},

{

"type": "Microsoft.Web/sites",

"apiVersion": "2020-06-01",

"name": "[parameters('webAppName')]",

"location": "[parameters('location')]",

"dependsOn": [

"[resourceId('Microsoft.Web/serverfarms', variables('appServicePlanPortalName'))]"

],

"properties": {

"siteConfig": "[variables('configReference')[parameters('language')]]",

"serverFarmId": "[resourceId('Microsoft.Web/serverfarms', variables('appServicePlanPortalName'))]"

},

"resources": [

{

"condition": "[contains(variables('gitRepoUrl'),'http')]",

"type": "sourcecontrols",

"apiVersion": "2020-06-01",

"name": "web",

"location": "[parameters('location')]",

"dependsOn": [

"[resourceId('Microsoft.Web/sites', parameters('webAppName'))]"

],

"properties": {

"repoUrl": "[variables('gitRepoUrl')]",

"branch": "master",

"isManualIntegration": true

}

}

]

}

]

}

Two Azure resources are defined in the template:

* [**Microsoft.Web/serverfarms**](https://docs.microsoft.com/en-us/azure/templates/microsoft.web/serverfarms): create an App Service plan.
* [**Microsoft.Web/sites**](https://docs.microsoft.com/en-us/azure/templates/microsoft.web/sites): create an App Service app.

This template contains several parameters that are predefined for your convenience. See the table below for parameter defaults and their descriptions:

| **TABLE 1** | | | |
| --- | --- | --- | --- |
| **Parameters** | **Type** | **Default value** | **Description** |
| webAppName | string | "webApp-[**<uniqueString>**](https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-functions-string#uniquestring)" | App name |
| location | string | "[[resourceGroup().location](https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/template-functions-resource#resourcegroup)]" | App region |
| sku | string | "F1" | Instance size (F1 = Free Tier) |
| language | string | ".net" | Programming language stack (.net, php, node, html) |
| helloWorld | boolean | False | True = Deploy "Hello World" app |
| repoUrl | string | " " | External Git repo (optional) |

**Deploy the template**

Azure CLI is used here to deploy the template. You can also use the Azure portal, Azure PowerShell, and REST API. To learn other deployment methods, see [Deploy templates](https://docs.microsoft.com/en-us/azure/azure-resource-manager/templates/deploy-powershell).

The following code creates a resource group, an App Service plan, and a web app. A default resource group, App Service plan, and location have been set for you. Replace <app-name> with a globally unique app name (valid characters are a-z, 0-9, and -).

Run the code below to deploy a .NET framework app on Windows.

Azure CLICopy

Try It

az group create --name myResourceGroup --location "southcentralus" &&

az deployment group create --resource-group myResourceGroup \

--parameters language=".net" helloWorld="true" webAppName="<app-name>" \

--template-uri "https://raw.githubusercontent.com/Azure/azure-quickstart-templates/master/quickstarts/microsoft.web/app-service-docs-windows/azuredeploy.json"

**Note**

You can find more [**Azure App Service template samples here**](https://azure.microsoft.com/resources/templates/?resourceType=Microsoft.Sites).

**Validate the deployment**

Browse to http://<app\_name>.azurewebsites.net/ and verify it's been created.

**Clean up resources**

When no longer needed, [delete the resource group](https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/delete-resource-group?tabs=azure-portal#delete-resource-group).