Cloud Tools for Visual Studio

Quickstart

This page shows you how to configure Microsoft Visual Studio and create and deploy an ASP.NET application on Google Cloud.

Before you begin

1. In the Cloud Console, on the project selector page, click **Create** to begin creating a new Cloud project.

   GO TO THE PROJECT SELECTOR PAGE (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/PROJECTSELECT

2. Make sure that billing is enabled for your Google Cloud project. Learn how to confirm billing is enabled for your project (https://cloud.google.com/billing/docs/how-to/modify-project).

3. Ensure you have the following software installed on your local system:

   - Visual Studio 2019 (https://www.visualstudio.com/vs/) or Visual Studio 2017 (https://www.visualstudio.com/vs/older-downloads/), any Windows edition. (Cloud Tools for Visual Studio does not support Visual Studio 2017 for Mac.)

   - Cloud SDK (https://cloud.google.com/sdk/)

4. Create a new Windows VM to host your app:

   a. Navigate to the ASP.NET Framework image on the Google Cloud Marketplace.

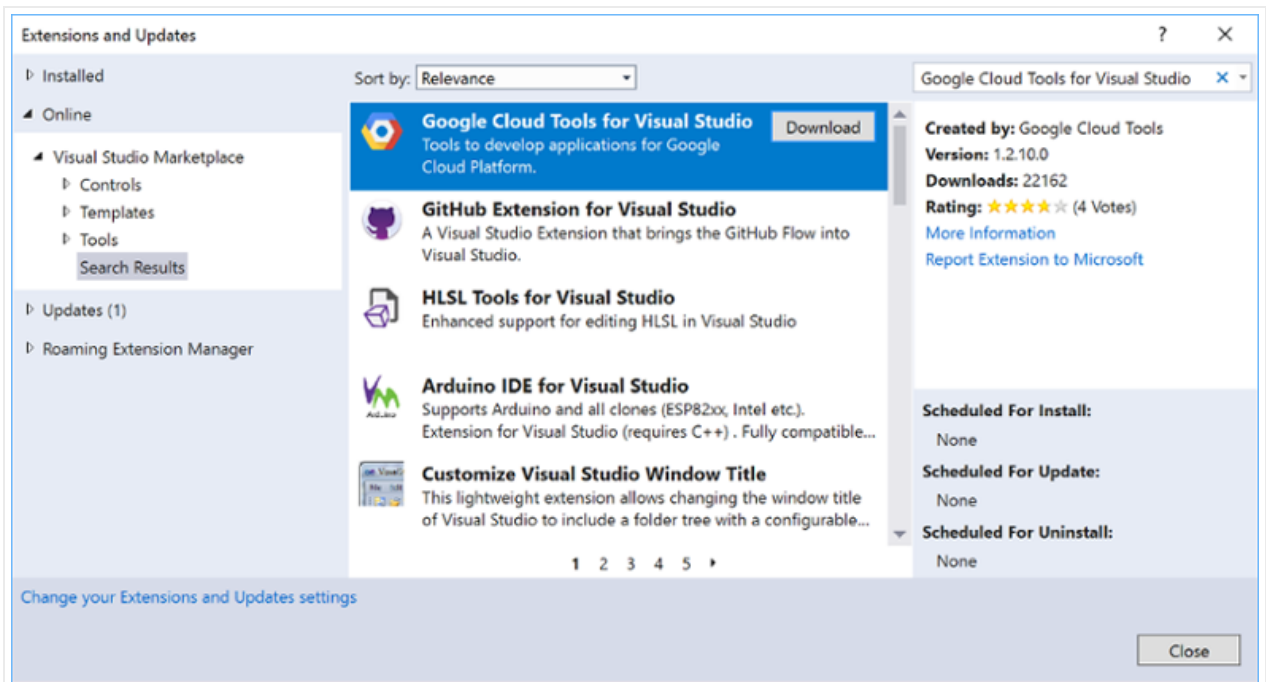   **GO TO THE ASP.NET FRAMEWORK IMAGE** (HTTPS://CONSOLE.CLOUD.GOOGLE.COM/MARKET

   b. Select **Launch on Compute Engine**.

   c. Choose your **Deployment name** and settings, ensuring that **Allow HTTP Traffic** and **Allow WebDeploy Traffic** are checked.

d. Select **Deploy**.

Installing Cloud Tools for Visual Studio

To install Cloud Tools for Visual Studio from the **Extensions and Updates** dialog in Visual Studio:

1. Select **Tools** > **Extensions and Updates**.

2. Select the **Online** facet from the left pane.

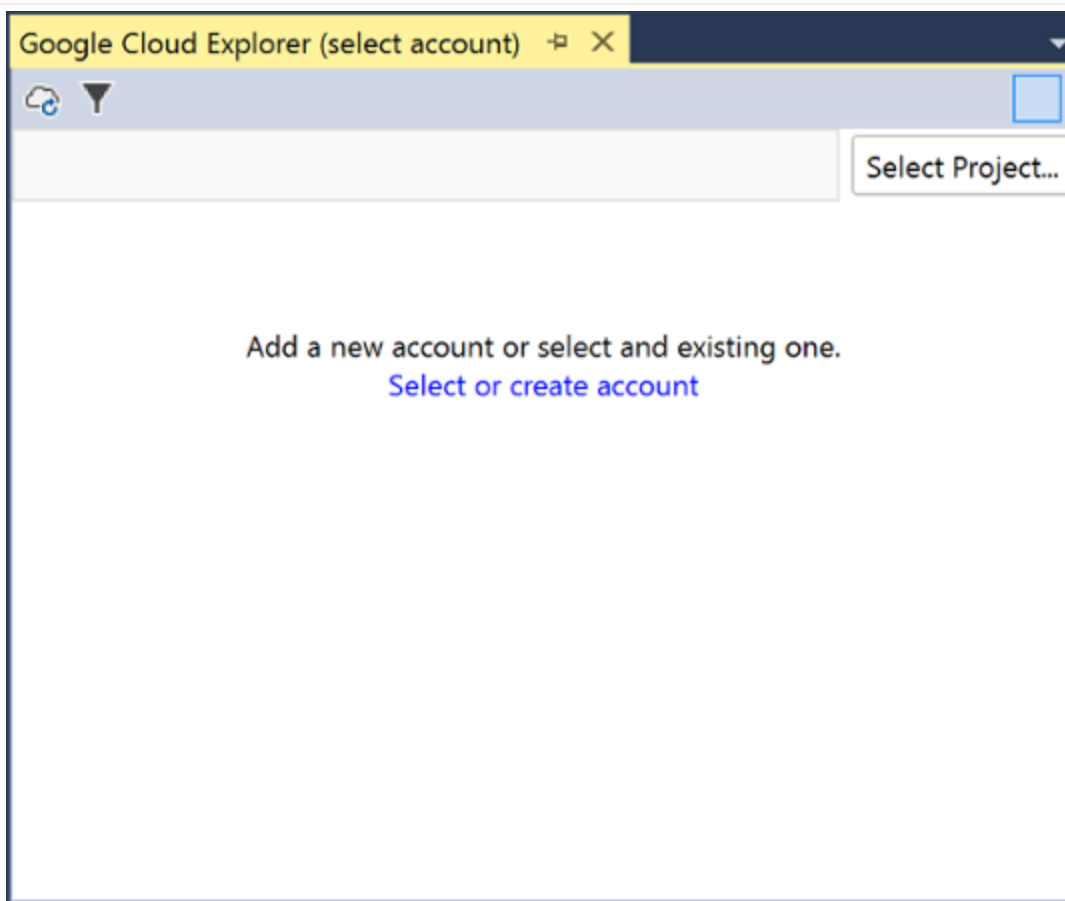3. Search for **Google Cloud Tools for Visual Studio**.

4. Click **Download** and follow the prompts.

5. Restart Visual Studio to load the extension.

Signing in to Google

Sign in to a Google account that you use to deploy your project to App Engine.

1. Open Visual Studio.

2. Launch **Cloud Explorer** by selecting **Tools** > **Google Cloud Tools** > **Show Google Cloud Explorer**.

3. Click **Select or create account**.

4. Click **Add account**.

   A new browser window opens and asks for the permissions it needs to manage your Google Cloud resources.
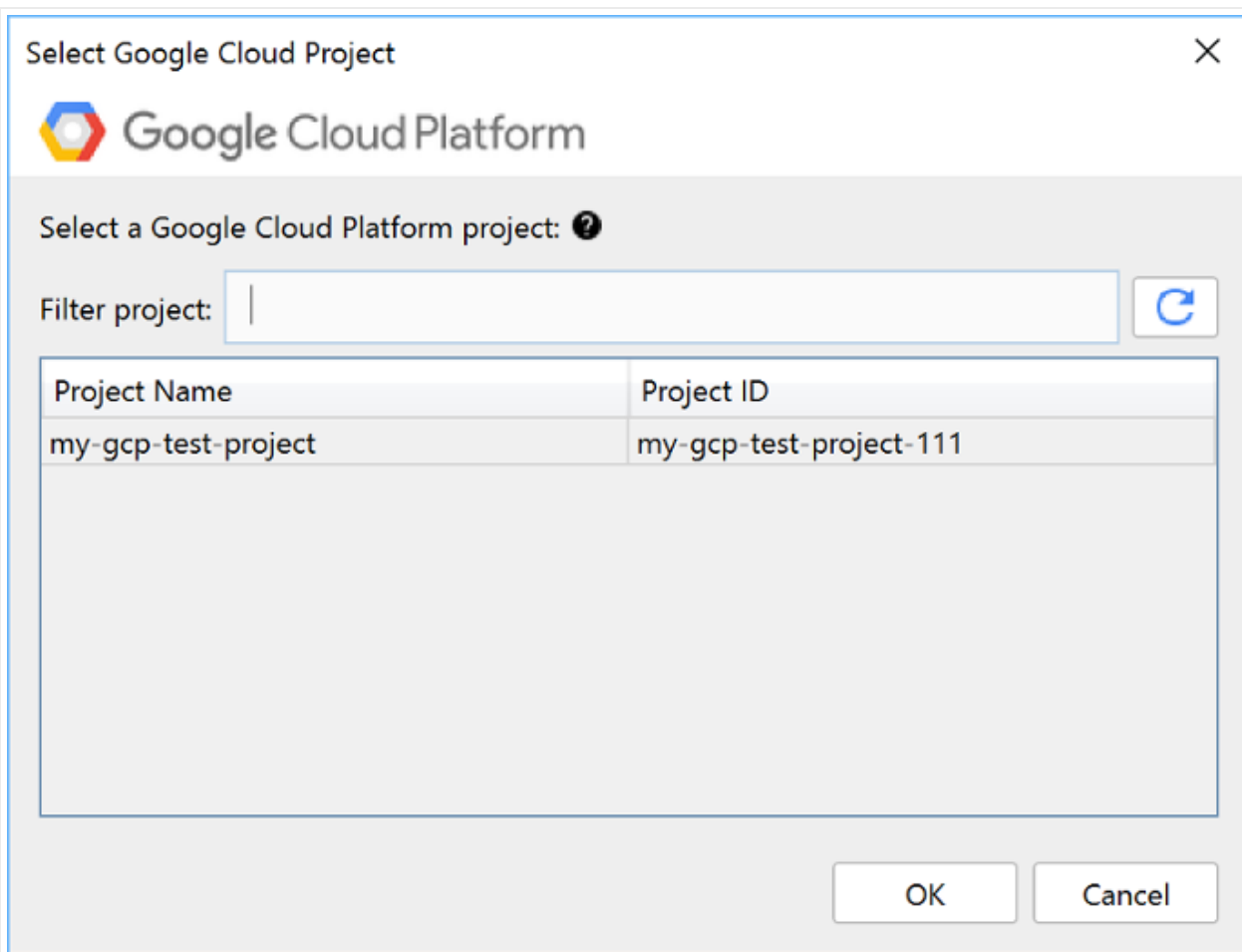
5. Select the account to use for your application.

6. Click **Allow** and close the browser window.

Selecting a project

To select a Google Cloud project to deploy your application to:

1. In the **Cloud Explorer**, click **Select Project**.
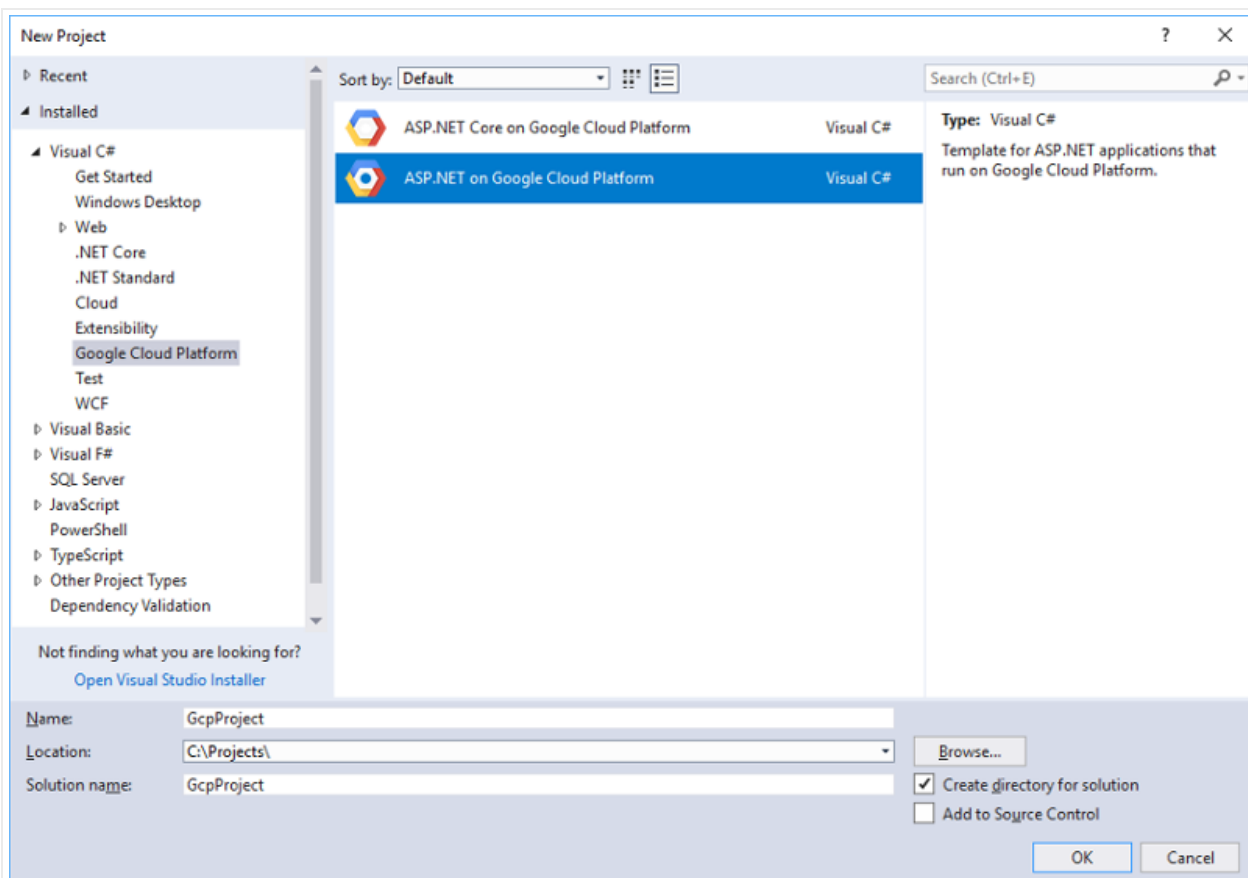
2. Select your project in the list.

3. Click **OK**.

The Cloud Explorer refreshes and displays the resources for the selected project.

Creating an ASP.NET app

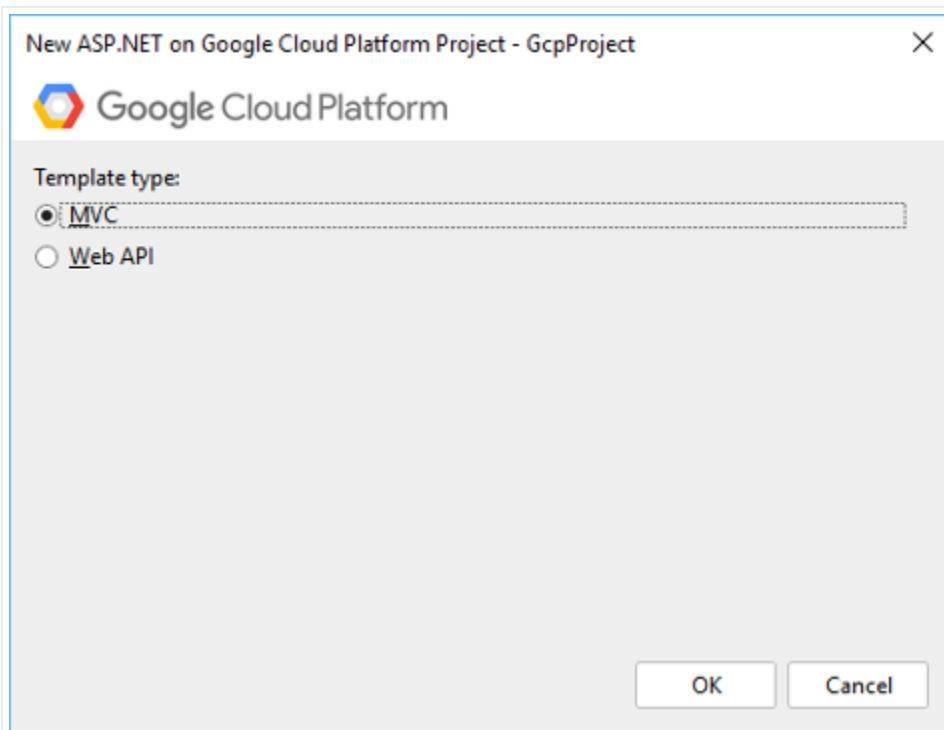To create a new ASP.NET project and run it locally:

1. Choose **File** > **New** > **Project** to open the New Project dialog.

2. Use the left panel to navigate to **Installed** > **Visual C#** > **Google Cloud Platform**.

3. Select **ASP.NET on Google Cloud Platform**.

   To deploy your app to a VM on Compute Engine, target the .NET Framework, not .NET Core. Use the **ASP.NET Core on Google Cloud Platform** template for GKE or App Engine.

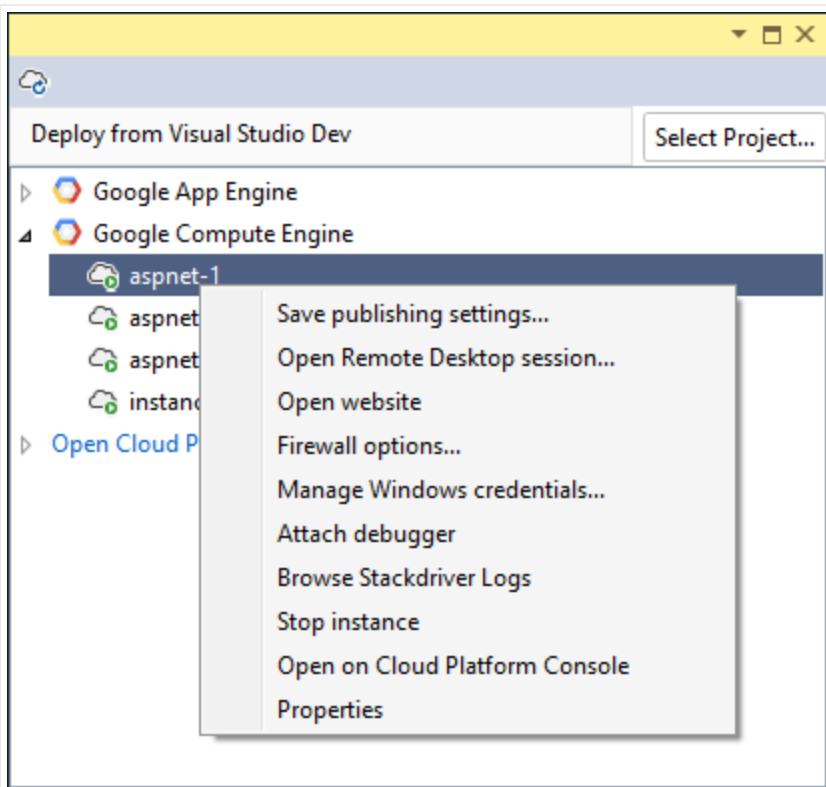4. Enter the **Name** of your project.

5. Click **OK**.

6. Select the **Template type**.

7. Click **OK**.

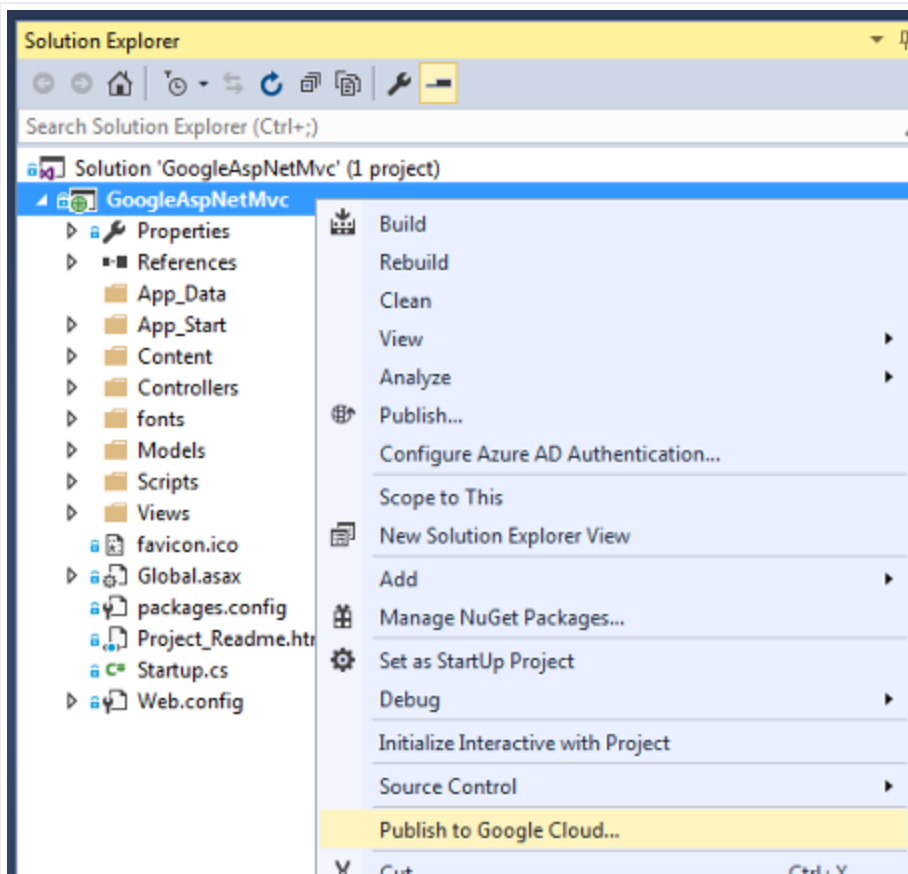8. Build the solution and run it locally, verifying that it works.

Deploying an ASP.NET app

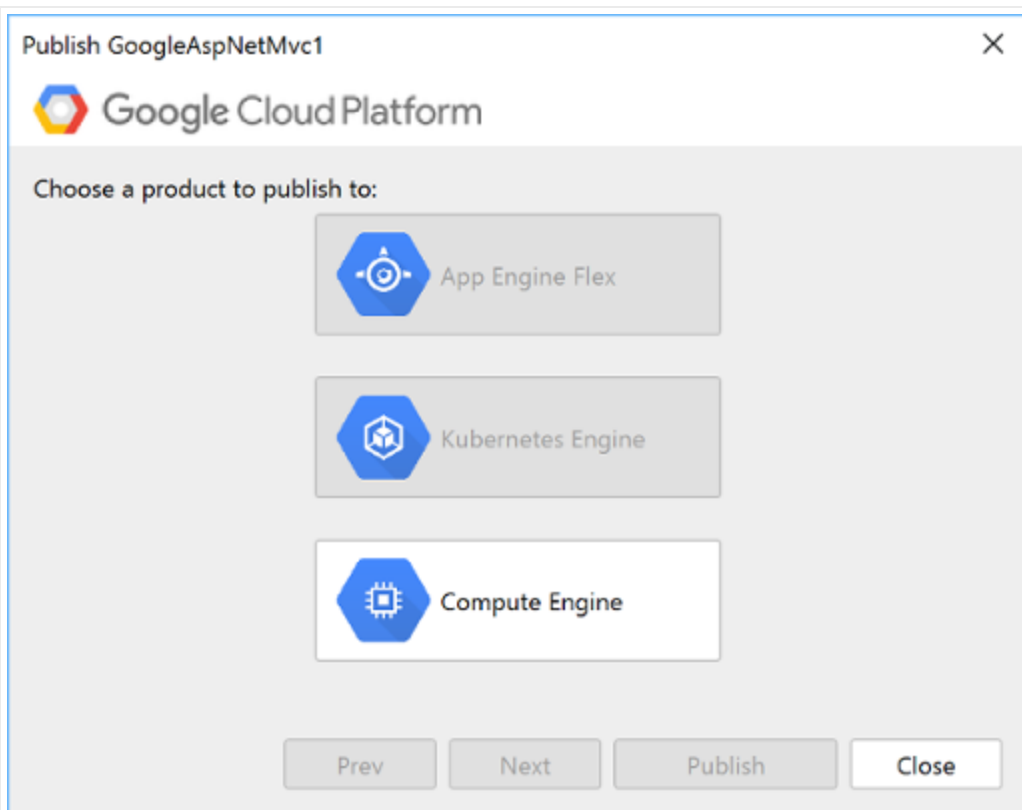To deploy your ASP.NET app to a Windows VM running on Compute Engine:

1. In Cloud Explorer, select the newly created project and expand GKE.

2. Right-click on the VM instance that you created above with Google Cloud Marketplace.

3. Select **Manage Windows credentials**.

4. Click **Add credentials**.

5. Enter a username.

6. Ensure that **Create a password for me** is selected and click **Save**.

7. Click **Reset** when prompted with the confirmation question: "Reset the password for [your username] on the instance [instance you created]?"

8. Then click the **Close** button to close the password window.

9. Next click the **Close** button to close the **Windows Credentials** window.

10. In the Visual Studio **Solution Explorer** pane, right click your application.

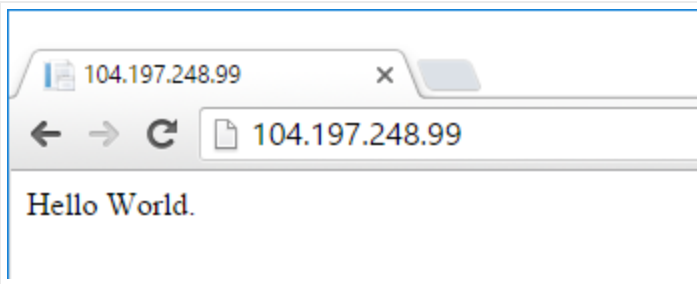11. In the context menu, click **Publish to Google Cloud...**

12. In the Publish dialog box, choose **Compute Engine**.

13. Click **Publish** to build and deploy the sample application. After publishing completes, Visual Studio opens the application in your default web browser:

That's it — your application is hosted on Compute Engine.

What's next

- Learn more about Browsing Compute Engine Resources (https://cloud.google.com/tools/visual-studio/docs/browse-compute).

- Learn more about Browsing Cloud Storage Buckets (https://cloud.google.com/tools/visual-studio/docs/browse-storage).

- Learn more about Browsing Cloud SQL Instances (https://cloud.google.com/tools/visual-studio/docs/browse-cloudsql).

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