Deploying an ASP.NET WebForms Application to an Azure Virtual Machine (VM)

Introduction

Rainbow School has developed a prototype ASP.NET MVC application for UI testing and wishes to deploy it to an Azure Virtual Machine (VM) to collect feedback from stakeholders. This writeup outlines the step-by-step process for deploying the application to an Azure VM taken.

Deployment Steps

Create a Windows VM on Azure along with an SQL Server:

a. Log in to the Azure Portal (https://portal.azure.com/).

b. Click on the "Create a resource" button (+) and search for "Virtual Machine", “Web App” and “SQL Database” in the marketplace.

d. Configure the VM, Web App and the SQL Database settings based on the restrictions provided by the company. For both VM, Web App and SQL ensure User Authentication is used.

e. Review and create the VM, Web App and the SQL Database. Azure will provision the VM based on our settings.

f. Once the VM is provisioned, connect to it using Remote Desktop Protocol (RDP) with the provided credentials.

g. Use the SQL Database to create the tables and insert records for the students. We can also use our local SQL SMS to manage the database by connecting and authenticating the server provided when SQL Database was created.

Build and Deploy the Application Locally:

a. Open the ASP.NET MVC project in Visual Studio.

b. Make sure the application is configured to connect to the SQL Server on the Azure VM. Update the connection strings in the application's configuration to point to the Azure SQL Server.

c. Build and test the application locally to ensure it works correctly.

Publish the Application to Azure VM:

a. After deploying Web App download the publish profile.

b. In Visual Studio, right-click on the ASP.NET MVC project and select "Publish."

c. Choose "Import Profiles" as the target for publishing.

d. Use the profile downloaded to publish the application.

Run the Application on the Virtual Machine:

We can run the VM locally on our machine using a virtualization tool. Once the VM is running locally:

a. Open the local web browser in the VM.

b. Enter the local IP address of the web app : https://rainbowschooldb.azurewebsites.net

c. Our ASP.NET MVC application should now be accessible from the local browser, running on the Azure VM hosted locally.

Conclusion

We have successfully deployed our ASP.NET MVC application to an Azure Virtual Machine and accessed it locally for testing and feedback collection. Make sure to monitor the VM's performance and security to ensure a smooth user experience, even in a local environment.