# Publishing our site for use outside of development environment

Due to our use of Visual Studio, MVC4, and the ASP.NET framework to develop our website, the environment required to run/test the website is more complicated than a regular MySQL/PHP/Apache Server setup. Originally, we had planned to host our website (for tutor testing) to IIS (web server). We unfortunately ran into a number of problems with this approach, and had to find another hosting solution on the morning of our W9 demonstration tutorial.

The main issue with the IIS server was the fact that the computer that was being used as the IIS server would regularly change IP addresses (due to the ISP reassigning addresses at least once a day). Another issue was incompatibilities with our older development environment and the newer IIS instance that was being used.

The alternative approach that we ended up using to publish our website for outsider testing and access was to publish our site to a third party webhosting service. This approach meant that we would have a fixed web address for the duration of the subject, and did not have to leave our personal machines running 24/7 to ensure appropriate access.

A simple Google search presented many such hosting services, and we ended up selecting a service that offered a 60 day free trial (enough time to host the site for the remained of the semester) whilst providing a free temporary URL with unlimited space and bandwidth. The service that we are using is: <http://www.smarterasp.net/>

After creating the account, I had to publish our code and data to the site. To do this, I looked up a few online tutorials from both the hosting website and other sources, to step me through the process.

The main tutorial was how to ‘Use Web deploy function to publish site with Visual Studio 2012’ from this URL: <http://www.smarterasp.net/support/kb/a367/use-web-deploy-function-to-publish-site-with-visual-studio-2012.aspx>

I received supplementary information from the Microsoft website for this process. The help page is titled ‘How to: Deploy a Web Project Using One-Click Publish in Visual Studio’, from <https://msdn.microsoft.com/en-us/library/dd465337(v=vs.110).aspx>

The next tutorial, ‘How can I create SQL server 2012 (mssql 2012) database from hosting control panel?’ guided me through the steps of creating an MSSQL database within the web hosting service control panel in order to enable migration of our (currently) virtual databases and datasets. This tutorial is from <http://www.smarterasp.net/support/kb/a367/use-web-deploy-function-to-publish-site-with-visual-studio-2012.aspx>

Once I had completed these steps, I tried to access the website through our provided temporary URL. The first issue that we ran into related to the web hosting service, and required further research to fix. The solution was found from this URL: <http://www.smarterasp.net/support/kb/a1524/an-error-was-encountered-when-processing-operation-create-directory-using-webdeploy-publish_.aspx>

After this was fixed, our website began throwing a runtime error upon startup. Although this time, the error message was not providing any useful information, as hitherto unknown to us, the default permissions of a ASP.NET site are to not allow detailed error messages from being shown from remote sources. Further Google searches revealed the solution to this issue: <http://forums.asp.net/t/1149763.aspx?Current+custom+error+settings+for+this+application+prevent+the+details+of+the+application+error+from+being+viewed+remotely>+

After making the necessary changes, the site was still throwing the runtime error – but we could see the error message and cause. The runtime error complained that, among other things, an “INSERT statement conflicted with the FOREIGN KEY constraint”. This meant that there was an issue somewhere with our prefilled data (exported dummy data). Again, searching through help forums presented the following help: <http://stackoverflow.com/questions/2965837/insert-statement-conflicted-with-the-foreign-key-constraint>

Using these answers, it was evident that our configuration.cs file (that has all the settings and data that we predefine for the website to use upon startup) had some ‘dodgy’ data somewhere. Further exploration revealed that one dataset (representing our ORDERS) had been successfully defined, but another dataset (representing our PACKAGES), had not been defined. Since our table structures required that an order have a corresponding package, the web hosting database was complaining that the foreign key constraint was not being met and therefore could not proceed. Simply adding the necessary dummy data to the configuration file rectified the issue, and the website ran properly.

This site hosting solution is not being used for regular development activities, but is used to demonstrate our product in-class to our clients and tutor – as it does not require our development environment to be readily available. It is also used to test the website functionality when finalising acceptance tests – as the development environment version of our site often behaves differently to the actual published version.