Project Assignment No. 3

DUE: 22.06.2012 23:59

The primary goal of this exercise is to gain insight in developing and deploying a scalable, multi-tiered web application using Microsoft's Windows Azure.

1. Prerequisites

- If your group has not received an Windows Azure Grant Code via the ISIS messaging system by 08.06.2012 18:00, please contact us.
- At least one member of your group must have a Windows Live ID and redeem the Azure Grant Code here. The grant should be more than sufficient to successfully complete this project assignment. Redeeming the code will grant you access to the Windows Azure Platform.
- To complete the assignment, you will need to install Microsoft Visual Studio 2010 (including Service Pack 1) that is available for free for TUB students via MSDNAA. Additionally you will need the following Visual Studio extensions:
  - Microsoft Visual C#
  - Microsoft Visual Web Developer
  - Windows Azure Tools for .NET (available here)
- Documentation on Windows Azure is available in the MSDN library.
- Several How-Tos on getting started with Azure Services can be found on the Azure Website.

2. Writing a multi-tiered web application

Using Visual Studio and the Windows Azure Tools for .NET, write a ASP.NET MVC 3 web application that offers its users to upload and share photos. Users should be able to browse, view photos and upload. Each uploaded image should be available in three versions:

- Thumbnail (max 200x200 pixels)
- Original
- Black and white version

When browsing photos, only thumbnails shall be displayed. When clicking on thumbnails, the original image shall appear. Below each thumbnail a link to a black and white version must be provided.

This requires the following components:

- Blob storage to hold the images.
- A web role that handles the web requests.
- A worker role that does the actual work of computing the thumbnail and black and white versions of the original photo and stores them in blob storage.

- A service bus queue that forwards work packages from the web role to the worker role.

To complete the assignment at least one member of your group has to give a live demonstration of your system running on Windows Azure.

Hints:

- The code samples provided in the tutorial slides and the assignment materials should help you get started.

- Using the Azure grant you will need to create a storage account/namespace and service bus namespace. Service bus queues cannot be locally emulated (unlike blob storage), so even when debugging your application you will have to use a proper service bus connection string.

- To use the Service Bus API you have to add a reference to the Microsoft.ServiceBus.dll assembly.

3. Submission Deliverables

Your submission on ISIS should be a single .zip file containing your Windows Azure application. Exclude the any directory with the following names from the uploaded .zip file: bin, obj, csx, packages.

Important: Please include a file called „group.txt" within your submission. It must contain the full names of all group members including their matriculation numbers.

To complete this assignment at least on member of your group also has to give a live demonstration of your system running on Windows Azure at 22.06.2012 12-14 in EN057.