

# Kurs-Dokumentation



## Zentrum für Informatik ZFI AG

# Windows Azure Solutions with Microsoft Visual Studio 2010 (NWAZ-0412) -IT Ausbildung nach Mass

<http://www.zfi.ch/NWAZ-0412>

Weitere Infos finden Sie unter [www.zfi.ch](http://www.zfi.ch) oder via Adresse:

Zentrum für Informatik ZFI AG  
Zentralsekretariat  
Technoparkstrasse 1  
CH-8005 Zürich  
Telefon: 044 732 40 00  
Telefax: 044 732 40 09

Zürich, Basel, Bern, Zürich, Schweiz

<b>Titel</b>	<b>Windows Azure Solutions with Microsoft Visual Studio 2010</b>
<b>Untertitel</b>	<b>Einführung in Cloud Computing für Entwickler</b>
<b>Einleitung</b>	<p>Unternehmen begreifen die Cloud (das Internet und die zugrunde liegende Infrastruktur) immer mehr als eine wichtige Komponente ihrer Entwicklungsstrategie. Dafür gibt es einfache Gründe mit grossen Auswirkungen. Vom Reduzieren der Kosten für die Infrastruktur und das IT-Personal, die für die Beschaffung und Wartung einer Computerinfrastruktur erforderlich sind, bis zu dem Argument, nur für die tatsächlich verbrauchten Computerressourcen zu zahlen, gibt es viele Aspekte, die die Cloud immer weiter an Bedeutung gewinnen lassen. Mit der Azure-Plattform bietet Microsoft den Entwicklern eine Cloud mit Tools, die zum Erstellen neuer Applikationen benötigt werden sowie Tools zur Erweiterung bestehender Anwendungen, die somit von der Leistungsfähigkeit der Cloud profitieren.</p>
<b>Ihr Nutzen</b>	<p>After completing this course, students will be able to:</p> <ul style="list-style-type: none"> <li>- Understand cloud computing in its various forms and how Windows Azure fits in the cloud computing space.</li> <li>- Learn why organizations want to run applications in the Azure cloud.</li> <li>- Understand the architecture of Azure.</li> <li>- Explore the Azure SDK and DevFabric development environment.</li> <li>- See how to develop applications for Azure and how that varies from "normal" .NET application development.</li> <li>- Write and deploy a ASP.NET Web application (Web Role) to Azure.</li> <li>- Explore Azure storage capability.</li> <li>- Learn how to create and deploy background computational applications (Worker Role) in Azure.</li> <li>- Explore SQL Azure capability.</li> </ul>
<b>Voraussetzungen</b>	<p>Before attending this course, students must have:</p> <ul style="list-style-type: none"> <li>- Experience with Visual Studio 2008 or better</li> <li>- Knowledge and experience in a .NET language (C# or VB)</li> <li>- Knowledge of ASP.NET</li> </ul>
<b>Teilnehmerkreis</b>	<p>This class is designed for .NET developers with Web application experience that are exploring developing new applications or porting existing applications to Windows Azure</p>
<b>Unterlagen</b>	<b>Original Microsoft-Unterlagen</b>
<b>Folgekurse</b>	<b>andere Kurse aus dem Bereich Spezialisierung, siehe Bildungsweg</b>
<b>Inhalt</b>	<p>- Cloud Computing Define cloud computing Learn the benefits of cloud computing Understand the different types of cloud computing services Explore where computing clouds might exist Hear about potential concerns with cloud computing Learn where cloud computing can and cannot be applied Place Windows Azure in light of general cloud computing Know how Windows Azure compares to other cloud environments</p> <p><b>Windows Azure Architecture</b> See a simple Windows Azure application Learn about the Microsoft data centers Explore the hardware,</p>

**servers and virtualization (the Fabric) that host cloud applications and data**  
**Understand the role of the Fabric Controller in managing the Windows Azure cloud**  
**Know the general architecture and components of the Windows Azure Platform**  
**Understand the tools used to create and deploy Windows Azure services and data stores**

**Windows Azure Web Roles**  
**Explore the purpose of Windows Azure Web roles.**  
**Understand how to create Web roles in a cloud service project**  
**See how to configure a Web role**  
**Learn how to test Web roles run in the Dev Fabric**  
**Start exploring the Windows Azure API**

**Local Storage**  
**Examine Windows Azure local storage**  
**See how local storage differs from normal server file systems**  
**Learn how to configure local storage.**  
**Understand the limitations of local storage and where/when to use it**  
**Explore the API to access local storage**  
**Learn about Windows Azure Drive (formerly X-Drive)**

**Windows Azure Storage and Queues**  
**Understand the purpose of Windows Azure Storage**  
**Learn how to create a Windows Azure Storage account**  
**Explore Windows Azure Storage costs**  
**Understand Dev Storage, how to use it, and how it is different from Windows Azure Storage**  
**See how to access Windows Azure Storage using both the REST API and the Storage Client Library**  
**Examine Windows Azure Storage Queues**  
**Learn how to get messages in and out of Windows Azure Queues**

**Blob Storage**  
**Understand the rationale for using blob storage**  
**Explore how to access blob storage with both the Storage Client and REST API**  
**Examine blob storage containers and how they are used to organize and control access to blobs**  
**Learn about the different types of blobs: block and page blobs.**

**Table Storage**  
**Explore Windows Azure Storage's structural data service**  
**Understand the reason for table storage**  
**Examine the differences between table storage and traditional relational databases (as exhibited by SQL Azure)**  
**Learn how to access table storage with both the Storage Client and REST API**  
**Understand entities as they relate to table storage**  
**Examine how to save and retrieve entities in table storage**  
**See how to use table storage for session management in Windows Azure Web applications**

**Worker Roles**  
**Explore the purpose of Windows Azure worker roles**  
**Understand how to create worker roles in a cloud service project**  
**See how to configure a worker role**  
**Learn how to test worker roles run in the Dev Fabric**  
**Explore how to setup worker role endpoints**  
**Learn how to communicate with worker role internal and input endpoints**

**SQL Azure**  
**Learn what SQL Azure is and why you want to use it**  
**Understand SQL Azure in comparison to SQL Server and Windows Azure table storage**  
**Learn how to provision a SQL Azure server and databases**  
**Examine costs associated with SQL Azure**  
**See how to use familiar tools and APIs to work in SQL Azure**  
**Explore how to create and**

**manage database objects in SQL Azure**  
**Know how to limit SQL Azure access**  
**Understand options for performing database backups**  
**See how to migrate data to SQL Azure**

**Diagnostics and Logging**  
**Learn how to accomplish debugging and logging in Windows Azure**  
**Examine Windows Azure Diagnostic Service**  
**Understand the role of the MonAgentHost process in the diagnostic service**  
**Learn how to configure the diagnostic service**  
**See how to transfer diagnostic data to Windows Azure Storage**

**Beitrag**

**Der Teilnehmerbeitrag versteht sich rein netto. Das ZFI ist (gemäss MwSt-Gesetz) nicht Mehrwertsteuerpflichtig und erhebt somit keine MwSt. Bei länger als einen Monat dauernden Lehrgängen ist die Zahlung des Teilnehmerbeitrages in mehreren Raten möglich (pro rata temporis).**

# Bildungsweg Visual Studio .NET

