Cloud Computing for Architects

This four day, hands-on boot camp begins with an examination of the Cloud Computing concept, the structure and key characteristics of Clouds, and takes a look under the hood at how they operate. From there, students are introduced to a Cloud Reference Model and explore various aspects of Cloud solution design from discovery throughout the lifecycle of a Cloud solution all the way to retirement. Special attention is given to requirements and Cloud utilization analysis, Cloud solution design strategies, and deployment scenarios. Upon completion of this course, students will have an understanding of the Cloud Computing environment and practical experience in designing, developing, and deploying Cloud-based solutions.

Course Objectives:

- **Understanding the origination of the Cloud**
- **Calculating the Cloud's value**
- **Categorizing Clouds**
- **Analysis of Case Studies**
- **Weigh Cloud Risks**
- **Build on Standards and Design**
- **Define Cloud Services**
- **Design & Develop Strategies**
- **Adopt Your Own Cloud**

Audience: Enterprise Architects, Solution Architects, Information Technology Architects, Senior Developers, and Team Leads.

Prerequisites: Foundational knowledge in distributed computing and Web-based architecture

Number of Days: 4 days

1 The Rise of the Cloud

Where did Cloud Computing originate?
Cloud Computing
Wikipedia Entry
Gartner on Cloud
The NIST Perspective
Five Characteristics
The Cloud Computing Spectrum / Service Models
Cloud Deployment Models
Understanding by Phone Service Analogy
Understanding by Electrical Power Grid Service Analogy
What is so special about Cloud?
Synergy is Powerful
Moving to the Cloud
Capacity Planning
Challenge – Measuring Capacity
Capacity Planning Concepts and Challenges
Capacity Planning – Utilization Risk
Utilization Risk – Mitigation
Capacity Planning – Different Workloads
Multi-Tenancy Model
Common Characteristics of Multi-tenant Applications (1/2)
Common Characteristics of Multi-tenant Applications (2/2)
Data Management in the Cloud
Data Physics
By the Numbers