CS 4037
Introduction to Cloud Computing
Lecture 1

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FAST School of Computing

NUCES Lahore

ICC Course Overview

Lecture's Agenda

- Students' Information
- Instructor Background
- Classroom Etiquettes
- Tentative Grading Policy
- Administrative Information
- Course Learning Outcomes (CLOs)
- Textbooks
- Reference Books
- Course Outline

Students' Information

- **Name?**
- **FSC / A Level / ICS?**
- **College?**
- **Hometown?**
- **CGPA (Optional)?**

- **In your opinion, what is cloud computing?**

Instructor Background

- BSCS – FAST-NUCES ISB
- MSCS – UCP LHR
- Management Trainee – PTCL
- AM Network Support – PTCL Data Center Operations
- AM Network Support – PTCL Cloud Operations
- Cloud Specialist – Multilynx (Jazz "Garaj" Cloud Project)
- CS Lecturer – FAST NUCES LHR

Classroom Etiquettes

- **80% attendance is mandatory**
  - Cross-Section class is not allowed
  - Taking two classes in the same time slot is not allowed
  - Attendance cannot be adjusted without academics office approval
  - Proxy case will have severe consequence, you may get F grade in the course

- **Cases of plagiarism will have serious consequences**
  - You may get F grade in the course or F grade in the entire semester

Classroom Etiquettes (Cont.)

- **Digital devices should be in bag**

- **Note book and pen should be on desk**

- **You should have 10 – 20 A4 pages in your bag during lecture for class activities.**

- **Students participation in the class is required**
  - However, talking among each other is not appreciated

- **If a key term is confusing to you, raise hand and ask the instructor**

Tentative Grading Policy

- **Course grades will be based on relative grading**

- **Quizzes ▯ 15%**
  - Unannounced or announced, no retake, may be best-of quizzes

- **Assignments ▯ 5%**
  - Announced, no retake, no late submission, no best-of assignments

- **Class Participation ▯ 5%**
  - Class activities, attendance and behavior in the class

- **Presentation ▯ 5%**

- **Midterm I and Midterm II ▯ 30%**

- **Final Exam ▯ 40%**

Administrative Information

- **Office**
  - **Office 55, First Floor, F Block**

- **Email**
  - **danyal.farhat@lhr.nu.edu.pk**

- **Office Hours**
  - **Tuesday [11:00 – 12:00 pm]**
  - **Thursday [11:00 – 12:00 pm]**

- **Website**
  - **Classroom Code ICC BCS 5B: ug5jkr35**

Course Learning Outcomes (CLOs)

- **Understanding basic concepts of the fundamental cloud computing. To get an idea of basic cloud artifacts, cloud models, cloud enabling technologies and cloud security concepts.**

- **Understanding AWS foundational services with the help of Hands-on-Labs of AWS Academy platform. Enables students to complete AWS Cloud Practitioner certification.**

- **Demonstrate familiarity with various cloud computing mechanisms and architectures along with a comparison of major cloud service providers.**

Textbooks

- **Cloud Computing – Concepts, Technology, and Architecture** by Thomas Erl, Zaigham Mahmood, and Ricardo Puttini

- **Student Handbook of the AWS Cloud Foundation Course**

- **Distributed and Cloud Computing** by Kai Huwang, Geoffrey C. Fox and Jack J. Dongarra

Reference Books

- **Architecting the cloud** by Michael J. Kavis

- **Cloud Computing: Principles and Paradigms** by Buyya R.

- **Modern Operating Systems** by Andrew S. Tanenbaum 4th edition

- **Mastering Cloud Computing** by Buyya R.

Course Outline

- **Course Overview**
- **Introduction**
- **Understanding Cloud Computing**
- **Fundamental Concepts and Models**
- **Cloud Enabling Technologies**
- **Fundamental Cloud Security**

Course Outline (Cont.)

- Introduction to Amazon Web Services
- AWS Cloud Economics and Billings
- AWS Global Infrastructure
- AWS Security
- Cloud Infrastructure Mechanisms
- Specialized Cloud Mechanisms
- Fundamental Cloud Architectures
- Advanced Cloud Architectures

Course Outline (Cont.)

- **AWS Networking and Content Delivery**
- **AWS Compute**
- **AWS Storage**
- **AWS Databases**
- **AWS Cloud Architecture**
- **AWS Auto-Scaling and Monitoring**
- **Course Presentations**

Questions?