## Schedule of Course Activities: Session 1

## *[CS 519: Introduction to Cloud Computing Online-Based]*

## *[Instructor: John C. Chan]*

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| **Overview of Session** |  |
| We will answer the following questions: | 1. Introduction of Cloud Computing, class syllabus. 2. Format of the class presentation. 3. Introduction of the instructor. 4. How do we communicate for this online class? |

**Self-Introduction:**

Seen at the Blackboard Course Announcement.

**Class Topics Outline:**

Introduction to the general concepts of cloud computing.

* What is and why Cloud Computing.
* Computing evolution review.
* Cloud Services Terminologies.
* Cloud types.
* Pros & Risks of Cloud Computing.
* The security issue.

Overview of the major players in cloud computing: products, services, usage models

* Microsoft Azure: Let’s learn about it.
* Google’s App Engine.
* Amazon’s Web Service (AWS): An outsider’s view/experience.
* OpenStack: An open source Cloud Computing Platform. Let’s explore it.

Cloud computing infrastructure overview: Inside a data center

Infrastructure: The three pillars of cloud computing.

* Cloud Computing infrastructure: Storage
* Cloud Computing infrastructure: Network.
* Cloud Computing infrastructure: Compute/Server.

Cloud Computations:

* Migration to the Cloud.
* Virtualization in Cloud Computing: Hypervisor, CloudStack, OpenStack.
* File System; Storage Clustering; Load Balancing; Redundancy/Fault-Tolerance…

Data Analytics, the future of Cloud Computing.

* Big Data, Hadoop.
* Machine Learning.
* Internet-of-Things.

**Text Book:** [**http://library.books24x7.com.proxy.cityu.edu/toc.aspx?site=GFV5U&bookid=44733**](http://library.books24x7.com.proxy.cityu.edu/toc.aspx?site=GFV5U&bookid=44733)

**Moving To The Cloud: Developing Apps in the New World of Cloud Computing**

by  [Dinkar Sitaram](http://library.books24x7.com.proxy.cityu.edu/SearchResults.aspx?qdom=author&scol=%7ball%7d&qstr=Dinkar%20Sitaram) and [Geetha Manjunath](http://library.books24x7.com.proxy.cityu.edu/SearchResults.aspx?qdom=author&scol=%7ball%7d&qstr=Geetha%20Manjunath)

**NOTE:**

The order of the subject presentations may be slightly out-of-sequence, as prescribed by the Syllabus. This way, we can have a more fluid presentation, and integral view on the subject. (We can have a fresh/different perspectives as well, based on my professional experiences.)

**In the class, we will examine, and explore answers to the following questions in details.**

* What is Cloud Computing?
* Why Cloud Computing?
* Why Cloud Computing did NOT exist 10 years ago?
* Who are the major players in the business?
* What are the building blocks in Cloud Computing (Hardware)?
* Usage Model of Cloud Computing (Mobile Apps Development example).
* How can I find a career in Cloud Computing?
* …

**Format/flow of the class presentation.**

For each class module, I will make every attempt to post a YouTube Video, an “Intro” to the sessions. It captures the guts of its content.

The overview of each class session is captured on the 1st page of the MS Word document (seen in the Tabular Form).

The rest of presentation contents, contain important information on the subject from the various sources. I write, select, and present the materials because they are relevant, practical, and easy to learn (Some are entertaining also. Please ignore any of the commercial ads).

NOTES:

1. The inputs of this materials comes from many sources. Examples include Wikipedia, YouTube, Internet searches, books, and my work experiences. This is an open acknowledgements of contributions by others.
2. The video that I made for the class is done by
   1. Computer Camera.
   2. Screen Capture Utility Tool named: bandicam.
3. More about bandicam: It is a great tool being used to capture your computer session. This way, other people can offer helps, after watching what you are trying to do, and the issues that you encountered (YouTube is great because of this feature as well…)
4. Free download can be found on this link: <http://www.bandicam.com/>
5. For being a free-ware, you have to live a watermark logo seen on each recording, and a 10-minute time limit per video clip.

**How do we communicate?**

I prefer the following ways to communicate for the class (in order of preference):

1. CityU’s Blackboard Discussion Forum for the class. I will facilitate the operation of the discussion forum, and actively engage on the conversations. Your participations are encouraged and expected.
2. YouTube Video (e.g. Self-Intro, or a short video, communicating your ideas, by sharing it to the class).
3. Email. My email at CityU is: [jcc4018@cityu.edu](mailto:jcc4018@cityu.edu)

Or: john\_c\_chan@hotmail.com

1. Skype: This is a great tool to communicate, if we are online at the same time (we can share computer screen, and take control etc. To help in collaborative mode!). Mt skype ID is: jcc4018.
2. Phone: I live in Seattle. My phone number is: 206.245.6919

**Class Assignments:**

There are five officially scheduled assignments. They are of a project nature. It is meant for you to explore (e.g. to try the unknown). I realize, to fully execute all aspects of each project, it is beyond the availability of your resources (time, money, your PC constraints…). In any case, I will provide some suggestions on our discussion board. We are in this together. Please share your BKM (Best-Known-Methods) from your experience. Lastly, there are some quiz questions in each of my presentation. Please feel free to elaborate and post in the discussion board as desired.

**Grading Policy:**

1. Class attendance. I will make every attempt, to make sure everyone at least read/watch each session materials.
2. Blackboard Forum discussions and participations.
3. Class assignments.

**Class Assignment For this Session**: Please post a brief Self-Into About yourself (Let’s know each other!)

* Any info about yourself that you are comfortable to share…
* Format: YouTube, or just plain text.
* Please post it in our class Blackboard Forum.

**Great, let’s start learning Cloud Computing by watching this video:**

<https://www.youtube.com/watch?v=QJncFirhjPg>

Remember, we are going to explore details as the class progress. You will enjoy this class! ☺☺

End of this class module.

Please don’t hesitate to reach me. Thank you.