**Activity 2 : Video on Introduction**

In this activity, instructor discusses on our day to day usage of cloud computing services for storage purposes and online tools for document editing, information viewing etc.. It was also mentioned that the trending software architecture called Software defined Architecture where the software is made available to users via cloud by having an API from the developers side and getting access to an API from the users side. There is a virtualization boundary between these where all the changes in the software and updation are being made without the user getting disturbed and giving access the user the software via simple platforms .These services are cost efficient and flexible to use on from the users side because users need not buy the software and just rent the software and more specifically use only required operations of a software as per their requirements.

**Activity 3 : Video on Cloud Computing Introduction**

In this video the instructor talks about how cloud computing has made its impact in the world and asks us to join the revolution of this modern era computing.We then look at the definition of Cloud Computing given by NIST (National Institute of Standards and Technology). Few of them are availability, accessibility, available 24 \*7 , on demand access, rapid provisioning with minimal management and lots of software for easy configuration along with easy service provider interaction. We then look at the key components of a cloud computing system namely the network which includes data center switches, ethernet, servers, machines, servers , multiprocessors and storage which is shared by all the machines to run its services on an application . In 2015 after learning about the tremendous benefits it can offer there has been a gradual increase in people's interest to learn about cloud computing. We then look at the tree most popular delivery models i.e., Platform as a Service (PaaS) , Infrastructure as a Service (IaaS) , Software as a Service (SaaS). A graph was presented on people's interests in Virtualization , Cloud computing and Big Data. Big data is nowadays most popular where the data from millions of users is stored and processed using advanced algorithms which has also helped them in building smart cities.

# **Activity 4 : Video on Motivation Interview - University of Illinois at Urbana-Champaign - Coursera**

In this video, Sumeet Singh ,Senior director for cloud and big data platform at yahoo! talks about how they use cloud computing at their company for their computing needs and run various services on it. He defines defines cloud computing and how it can be used in the near future and how he is extensively working on this particular domain over the past few years. He also specifies about a private cloud which only employees at Yahoo! have access to and there’s a public cloud where others can access applications like hadoop for their purposes. He describes how a lot of services can run simultaneously via cloud computing namely monitoring service, video hosting service, and other edge services.

**Activities**  **5 and 6 : Video on Cloudonomics Part-1**

***Cloudonomics*** refers to as the economics of cloud computing in order to calculate the costs of implementing a cloud solution to a business or an organization. It was also discussed about ***utility pricing*** which is practise is often highly spiky. It depends on demand . He talks about how a hybrid model can sometimes be a better option. He says the utility pricing is good when demand varies over time as is the case of a startup or a seasonal business.

This video is about common infrastructure built to peak requirements by multiplexing demand which in turn leads to higher utilization. The opposite holds true as well. He also discusses about the implications of smoothness. A fixed asset facility servicing highly variable jobs yields low utilization. A case study is also shown to understand the relation between them properly. The results from the theory are also shared.

**Activity 7 : Video on Big Data**

In this video we learn about big data which is a collection of data sets so large and complex, it’s impossible to process it on one computer, with the usual database and tools. Also, because of its size and complexity, Big Data is hard to capture, store, copy, delete, search , share, analyze and visualize. It represents the informations assets characterized by high volume, velocity and variety. This Big Data is used in many situations or applications and hence even they were discussed in the video .

**Activity 8 : Video on Cloud Introduction Summary**

This video is a summary, the reasons why cloud computing is opted and the economical costs it incurs . Career opportunities in cloud computing and other services and tools like scalability of web services , demonstrating user application etc..

**Activity 9 : Video on Software Defined Architecture**

The mechanisms and concepts of providing services, orchestration, and provisioning is called Software Defined Architecture.In the architecture, you have services, service providers, Virtualization and access control, Service logic, Service logic provider, service logic cloud, Cloud provisioning middleware, Hardware and software and data, control, resources.

**Video 10 : Video on Cloud Services**

IaaS performs basic computations and provides storage resources. PaaS provides cloud application infrastructure. SaaS is for cloud applicants. PaaS will offer web based development tools so that the developers can create their own applications online. Principles of software development are as a developer, one has to create an application in the quickest and most effective way possible, applications should not take more time to built, at the end user only sees the end product not the development process.

**Video 11 : Video on Infrastructure as a Service**

Xen wa initially a university research project. Efforts are to be put in the distributions in terms of maintenance. So Xen was hard to use. In the openstack architecture, the above layer will be like user applications, middle one will be dashboard, in the below layer we have Openstack Controller, Network , compute, storage.