



GUJARAT TECHNOLOGICAL UNIVERSITY

Community Innovation & Co-Creation Centre

Report

on

Faculty Development Program

on

AMAZON AWS Cloud Computing

organized by

Community Innovation & Co-Creation Centre

on

15th to 18st December 2015

at



Community Innovation & Co-Creation Centre

Room No: 131, Gujarat Technological University, ACPC Building, L.D. Engineering College Campus,
Navrangpura, Ahmedabad



Report

Gujarat Technological University has started Community Innovation and Co-Creation Centre to foster Innovation, Research and Entrepreneurship among students of Gujarat. As GTU has changed the syllabus of Cloud Computing, SUBJECT CODE: 2640013, M.C.A 4th SEMESTER, GTU has organized **Four day faculty development program on AMAZON AWS cloud computing** at CiC3, GTU, Ahmadabad. In that, more than 60 MCA/BE/ME (CE/IT) faculties registered for the workshop and GTU invited all of them for four days.

The objective of the program:

- To make the faculty members aware about cloud computing terminology and Amazon web Service application.
- To provide an understanding for setting up AWS account.
- To study the concept of Amazon machine images, configure instances, and its lifecycle.
- To understand the importance of Cloud computing for higher throughput using Amazon EC2.
- To make aware about Storage and Amazon S3 service.
- To study different application of Cloud and Cloud management techniques.
- To demonstrate the steps required to develop a SWF application on Amazon.

Day-1: 15th December, 2015

On day one **Mr. Harshal Trivedi** carried the session with basic introduction about Cloud computing, how it's useful to industry now days, benefits, advantage and its future scope. Afterwards, he has elaborated the Amazon Web Services (AWS) in detail that, today Amazon Web Services provides a highly reliable, scalable, low-cost infrastructure platform in the cloud that powers hundreds of thousands of businesses in 190 countries around the world. Major benefits of AWS are low cost, agility & instant elasticity, open, flexible and secure. Basically AWS consisting of 55 total services mainly categorized in compute, database, networking.

On the second session of day one, faculties learnt how to create server on AWS cloud practically. Hence, they have created Linux sever and understood how's actual data transfer possible between cloud & host pc.



Day-2:16th December, 2015

On day two, Mr. Vincent Quah, Asia Pacific Head, Amazon Web Services – AWS Educate visited Ahmedabad exclusively for bringing awareness on Cloud Technology through AWS Educate Program at Gujarat Technological University on 16th December 2015.

Mr. Quah interacted with syllabus committee members of MCA, BE-IT, CSE, and ME-CSE at Block 6, GTU campus. Mr. Quah also had a session with these faculty members at Ahmedabad management association.





Community Innovation & Co-Creation Centre

GTU has established 60 computer lab dedicated for bringing awareness on next generation technology with required software. There is a plan to have cloud computing program at least once in a week. GTU initiative will provide students and educators with resources needed to greatly accelerate cloud related learning and help to empower entrepreneurs, technologist and researchers of tomorrow.

On second day, mentor introduced about AMAZON S3 that is "SIMPLE STORAGE SERVICE". In that user can use Amazon S3 to store and retrieve any amount of data at any time, from anywhere on the web. Faculties accomplished these tasks using the simple and intuitive web interface of the AWS Management Console using bucket file for uploading & downloading.

Day-3: 17th December, 2015

On day 3, mentor delivered theory of architecture of overall load balance in AWS server handling. Due to heavy load on single server, failure in response to the request.



In cloud computing, **load balancing** distributes workloads across multiple computing resources, such as computers, a computer cluster, network links, central processing units or disk drives. Load balancing aims to optimize resource use, maximize throughput, minimize response time, and avoid overload of any single resource. Using multiple components with load balancing instead of a single component may increase reliability and availability through redundancy.

Day-4: 18th December, 2015

On the last day, mentor delivered a complete flow of SWF (Simple Work flow) & demonstrated the steps for developing application on Amazon. The main fundamental of SWF is WORKFLOW. Workflow is a set of activities that carry out some objective/aims along with the logics that coordinates with activities. Workflow could receive order from activity and take



Community Innovation & Co-Creation Centre

whatever actions are needed to fulfill it. For scalability large number of applications are nowadays relying on concept of asynchronous and distributed processing. Design autonomous distributed components. Reason is developers can have the flexibility to deploy and scale out parts of the application independently if the load on the application increases.



On the last day participants shared their knowledge on SWF to other faculties as SWF is in the syllabus of MCA 4th semester, Cloud computing subject. After that, faculties asked their doubts and other technical query of entire four days of FDP, and all the doubts & query were solved by the mentor.

At the valedictory ceremony **Prof.Hemal Nayak** asked the faculties for feedback & other suggestions regarding FDP to improve the future session. At the end, he distributed the certificates to all the faculties as well as mentor and he thanked all the faculties for making this FDP successful.





FEED BACK FROM FACULTIES

It was good... I would like to attend more training programs for the same...

~Prof. Rachit Virendra Adhvaryu.
(VVP Eng. College, Rajkot)

It's too good and excellent experience. I appreciate the work of GTU

~ Prof.Patel Parimal
(SCPPGICA,Ahmedabad)

Really good efforts from GTU. I am thankful to GTU organizers for developing such a wonderful FDP.

~Prof.Priyank Nahar
(SCPPGICA,Ahmedabad)

Its good experience for me. I appreciate the efforts of GTU and the resource person.

~Prof. Ashutosh Trivedi(SCPPGICA,Ahmedabad)

Flow of FDP was really good. Experts were excellent.

~Prof. Swapnil Parikh(Babria Inst. Tech,Baroda)