ACS COLLEGE OF ENGINEERING
#207, Kambipura, Mysore Road, Bangalore – 560 074.
Affilliated to VTU, Belagavi, Approved by AICTE, New Delhi and Govt. Of Karnataka

A Report on

Faculty Development Program on 'Data Science and Docker Technology'

Organized by

Department of Computer Science and Engineering, ACS College of Engineering (ACSCE), Bangalore-560074, Karnataka

Department of Computer Science and Engineering has organized 5 Day Faculty Development Program (FDP) on "Data Science and Docker Technology" from 29th June to 3rd July 2020. Dr .V Mareeswari in her speech addressed all the audience by her precious words. She started with the evolution of computer hardware and software. She continued to revise the change in technology and its importance. Later she discussed the needs of latest programming languages such as Python, R-programming etc. And the later session was continued by Mr. Namasivayam Chockalingom, Enterprise Application Analyst, Fiserv, who started the FDP with the basics of Data Science.

About the FDP**:-**

The vision of this FDP is to enhance the quality of education imparted in institutions by providing faculty members with a platform to learn all they need to know about Data Science and Docker Technology. Educators will get to learn the best practices in these domains so that they can teach the future workforce the required skill sets.

Data Science:- An interdisciplinary field, data science deals with processes and systems that are used to extract knowledge or insights from large amounts of data. Data extracted can be either structured or unstructured. Data science is a continuation of data analysis fields like data mining, statistics, predictive analysis. A vast field, data science uses a lot of theories and techniques that are a part of other fields like information science, mathematics, statics, chemometrics and

computer science. Some of the methods used in data science include probability models, machine learning, signal processing, data mining, statistical learning, database, data engineering, visualization, pattern recognition and learning, uncertainty modeling, computer programming among others. With advancements of so much of data, many aspects of data science are gaining immense importance, especially big data. Data science is not restricted to big data, which in itself is a big field because big data solutions are more focused on organizing and pre-processing the data rather than analyzing the data. In addition, machine learning has enhanced the growth and importance of data science in the last few years. Data has real value and every information extracted from it can make or break businesses. Analytics is the intersection of business and data science, offering new opportunities for a competitive advantage. It unlocks the predictive potential of data analysis to improve financial performance, strategic management, and operational efficiency. Data analytics can lead to valuable insights that can determine leads to increase sales, fraud detection, pattern recognition and risk prediction in various domains. As part of this initiative, a Faculty Development Programme (FDP) is conducted to focus on the fundamentals of data science with hands-on sessions on every topic handled using python.

Docker:- Docker is an open platform for developing, shipping, and running applications. Docker enables you to separate your applications from your infrastructure so you can deliver software quickly. With Docker, you can manage your infrastructure in the same ways you manage your applications. By taking advantage of Docker's methodologies for shipping, testing, and deploying code quickly, you can significantly reduce the delay between writing code and running it in production.

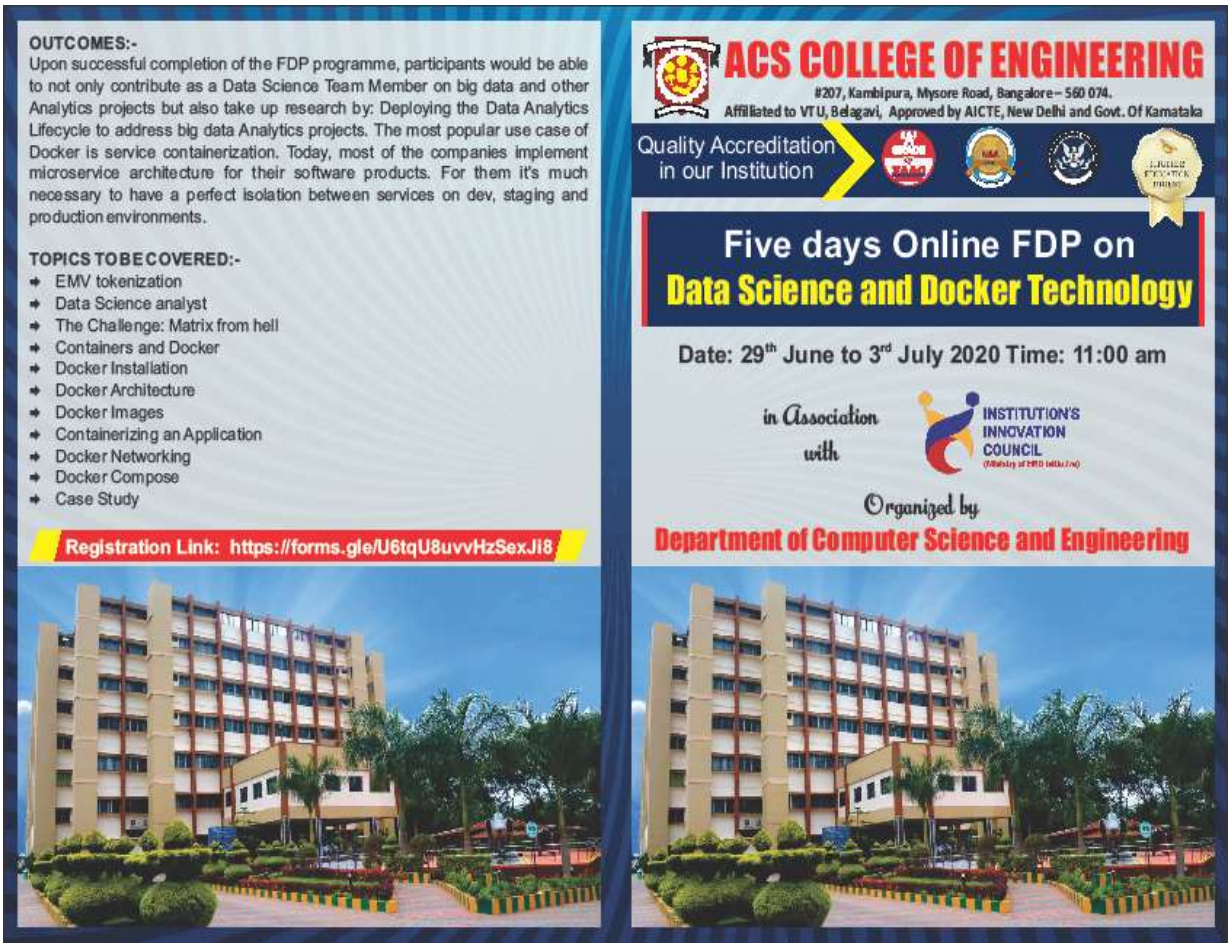
OBJECTIVES OF FDP:-

The principal purpose of Data Science is to find patterns within data. It uses various statistical techniques to analyze and draw insights from the data. From data extraction, wrangling and pre-processing, a Data Scientist must scrutinize the data thoroughly. And Docker is a set of platform as a service product that uses OS-level virtualization to deliver software in packages called containers. Containers are isolated from one another and bundle their own software, libraries and configuration files; they can communicate with each other through well defined channels.

Program Schedule:-

Day and Date	Course Contents
Day1: Monday, 29/6/2020	EMV tokenization, Data Science analyst
Day2: Tuesday, 30/6/2020	The Challenge: Matrix from hell
Day 3: Wednesday, 01/7/2020	Containers and Docker, Docker Installation, Docker Architecture, Docker Images, Containerizing an Application
Day 4: Friday, 02/7/2020	Docker Networking, Docker Compose, Case Study
Day 5: Saturday, 03/7/2020	Assignment Session

FDP Brochure:-



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Chairman, RRGI

Er. A. C. S. ARUNKUMAR
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RRGI

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RRGI

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Rector, RRGI

Dr. M.S.MURALI
Principal, ACSCE

Dr .V Mareeswari
HOD, Dept. of CSE

RESOURCE PERSONS

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Enterprise Application Analyst
Fiserv

Mr. Girish Y T
Programmer/Analyst
NetApp India (Pvt.) Ltd.

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ORGANIZING COMMITTEE

Faculty of Computer Science and Engineering Department

ABOUT THE INSTITUTE:-

ACS College of Engineering (ACSCE) , established in the year 2009 under Moogambigai Charitable and Educational trust is recognized by AICTE, New Delhi, Government of Karnataka and is affiliated to Visvesvaraya Technological University (VTU), Belgavi, Karnataka. The institute is accredited by NBA, NAAC, and HLACT. The institute offers Seven UG courses in Computer Science and Engineering, Aeronautical Engineering, Aerospace Engineering, Bio medical Engineering, Civil Engineering, Electronics and Communication Engineering, Mechanical Engineering, PG courses and Research Centers. All the departments have well qualified staff and well equipped laboratories, library, computing and sports facilities along with other amenities. The college is located at a distance of 17 kms from Bangalore City Railway Station on Mysore road.

ABOUT THE DEPARTMENT:-

The department was established in the year 2009 with an intake of 120 students. It has well qualified and experienced Teaching and Supporting Staff. Our department is having total area of -- 1994 sq meters. The department has spacious classrooms and a well-equipped computer labs with 185 systems, 2 servers all in a networked environment with un- interrupted power supply. Our Department is having smart class room, seminar Hall, Departmental Library, R&D, Language Lab. The institution offers Wi-Fi enabled high-speed Internet (60mbps) facility. The department is NBA accreditated for 3 years (2016-2019) and got extension for another 3 years, NAAC accreditated for 5 years with 'A 'Grade (2016-2021).

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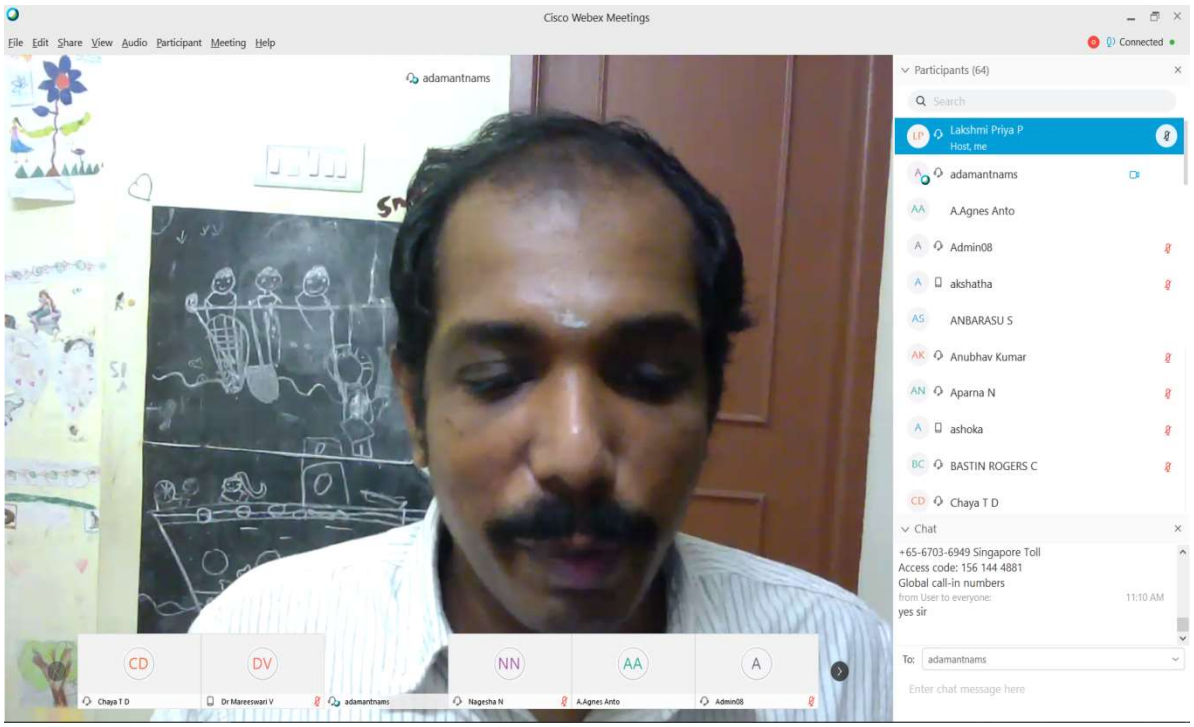
Day One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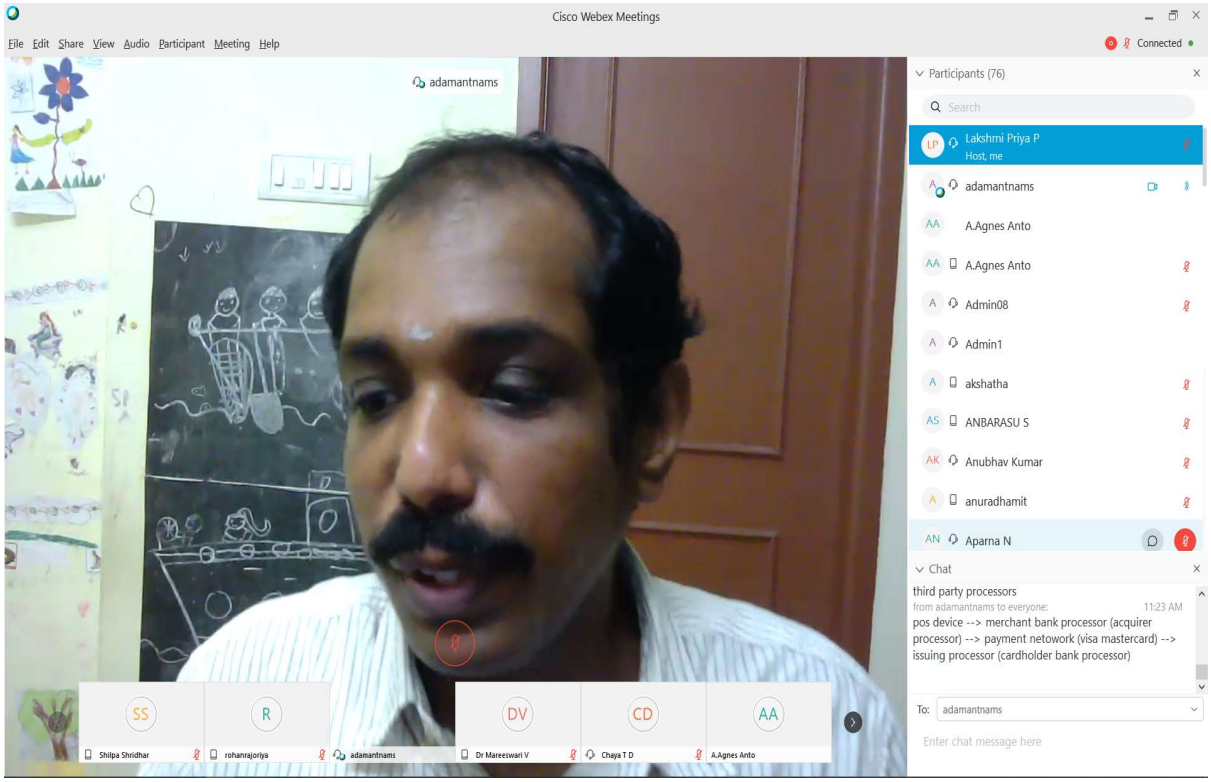
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Anubhav Kumar
anuradhamit
Aparna N
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from adamantnams to everyone: 11:23 AM
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To: adamantnams
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Shilpa Shridhar
rohanrajoriya
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Dr Mareeswari V
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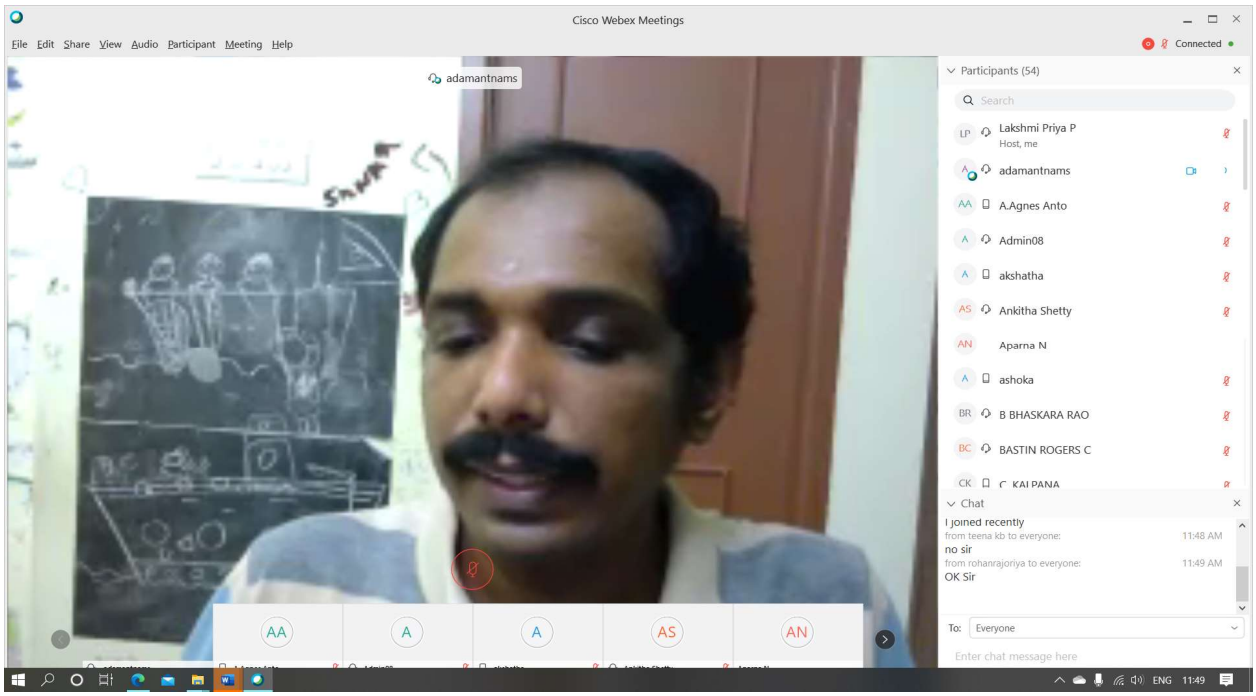
Day Two



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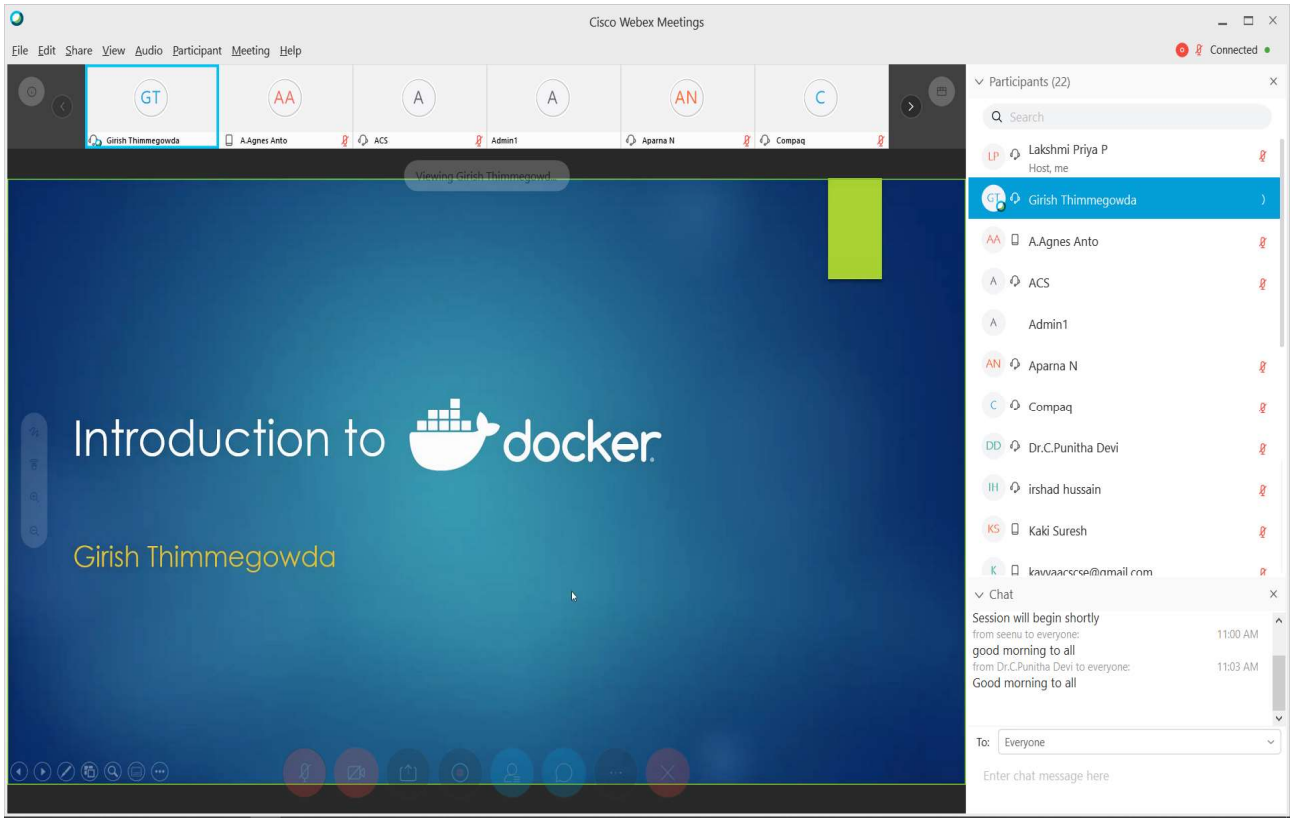

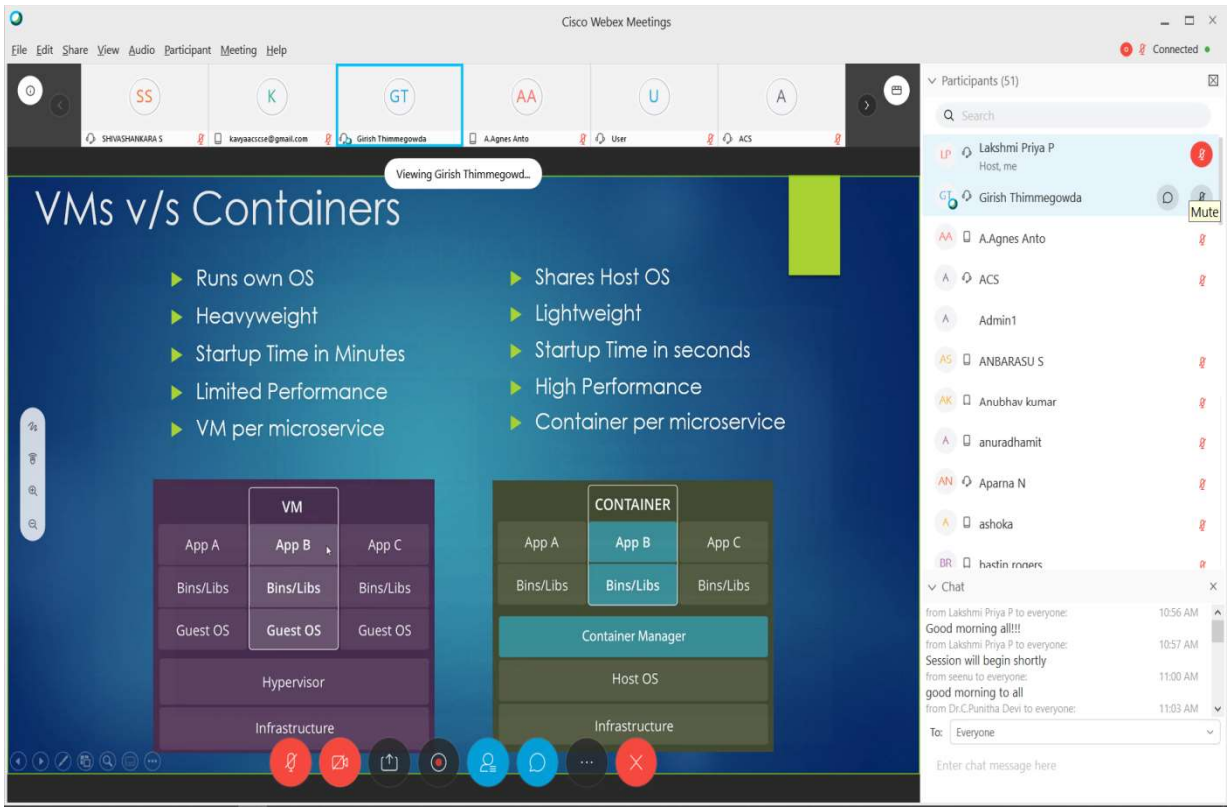
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VMs v/s Containers
Runs own OS
Heavyweight
Startup Time in Minutes
Limited Performance
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Shares Host OS
Lightweight
Startup Time in seconds
High Performance
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App B
App C
Bins/Libs
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Hypervisor
Infrastructure
CONTAINER
Container Manager
Host OS
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A.Agnes Anto
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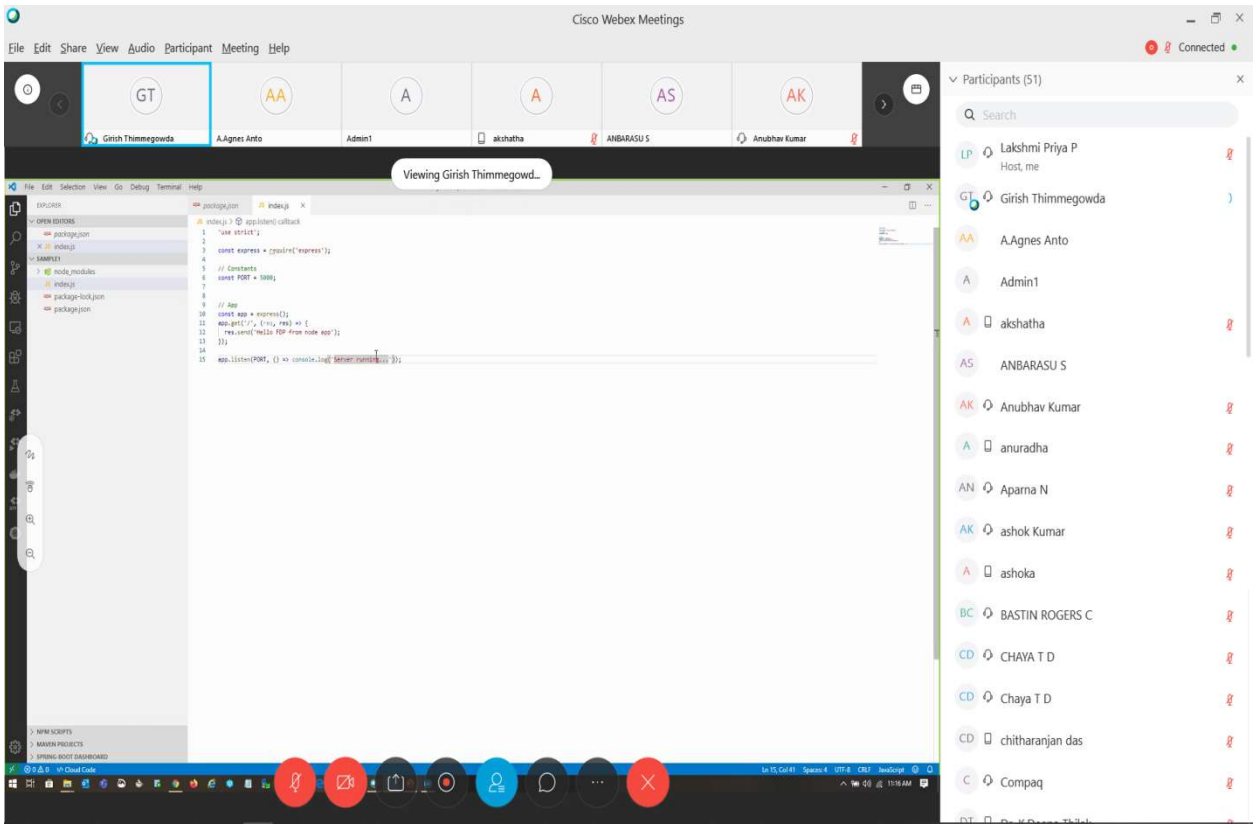
Good morning all!!!
Session will begin shortly
good morning to all
To: Everyone
Enter chat message here

Day Four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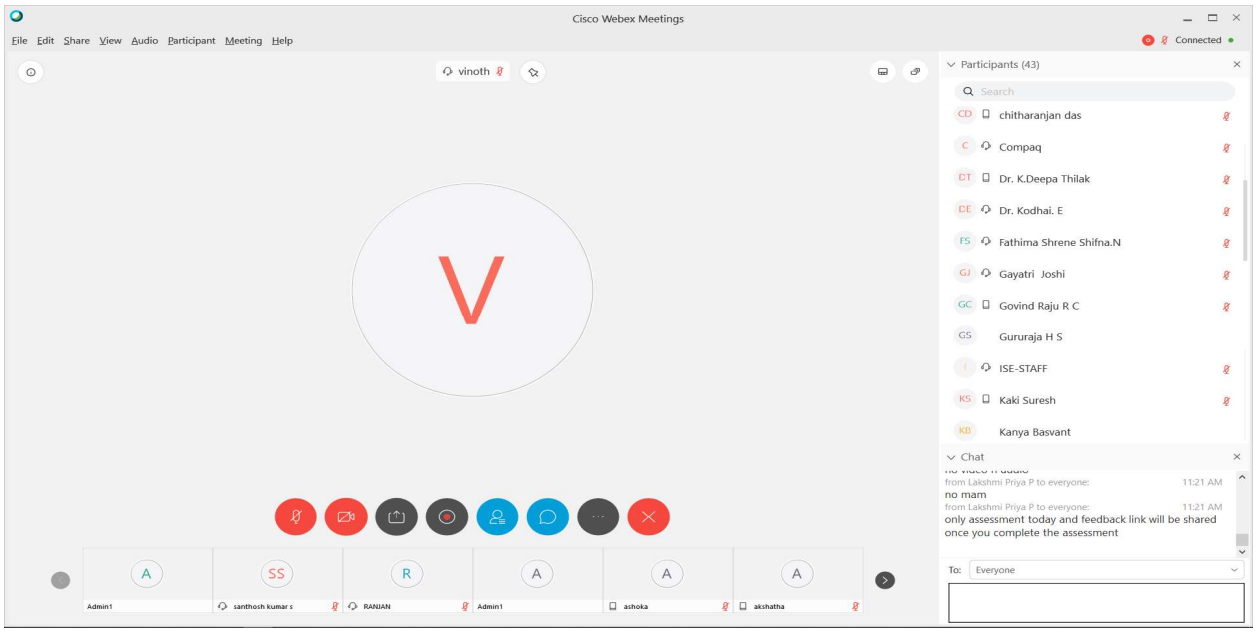
Day Five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Dr. Kodhai. E
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Gayatri Joshi
Govind Raju R C
Gururaja H S
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Participant's certificate

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Department of Computer Science & Engineering

EXCLUSIVE VIRTUAL FACULTY DEVELOPMENT PROGRAM ON

"Data Science and Docker Technology"

Certificate

This is to certify that **Shilpa sridhar** of **Gopalan college of engineering** has actively participated in Five days virtual Faculty Development Programme on **DATA SCIENCE AND DOCKER TECHNOLOGY** held during 29th June - 03rd July 2020, organized by Department of Computer Science and Engineering, ACS College of Engineering, Bangalore.

Mrs. Sunitha Chalageri	Mr. Prasad A Y	Mrs. Kavya G	Mrs. C. Christlin Shanuja	Dr. V.Mareeswari	Dr.M.S.Muarali
Coordinator	Coordinator	Coordinator	Coordinator	HOD, CSE	Principal