Type of Event: Workshop

Name of the Event: Hands on Workshop on Virtualization using Docker and Kubernetes - Leading industrial diversification

Coordinator's Name and contact Details: Mr. Ramanjeet Singh, Phone - 7986552005, email ID- ramanjeetsingh.uic@cumail.in

Student Coordinators:
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About the workshop:
Virtualization uses software to create an abstraction layer over computer hardware that allows the hardware elements of a single computer—processors, memory, storage and more—to be divided into multiple virtual computers, commonly called virtual machines (VMs). Each VM runs its own operating system (OS) and behaves like an independent computer, even though it is running on just a portion of the actual underlying computer hardware.

Today, virtualization is a standard practice in enterprise IT architecture. It is also the technology that drives cloud computing economics. Virtualization enables cloud providers to serve users with their existing physical computer hardware; it enables cloud users to purchase only the computing resources they need when they need it, and to scale those resources cost-effectively as their workloads grow.

Taking the influence of technology into consideration, Hands-on workshop on **'Virtualization using Docker and Kubernetes'** is being organized as a part of **TechInvent-2021**, by the University institute of computing. The objective of this workshop is making the students aware of real scenario like When the traffic of loading increases, i.e. N number of requests comes within a second, the organization may have to scale up the containers. But when containers increase day by day, the chances of having complexity increases. That is the reason, to handle those containers, the need for container management tools increases. And then Kubernetes came into the market. It became popular because of its functionality, and it was used as a Google brainchild.

Objective of the workshop:

- Basics of virtualization will lead the students to understand the importance of Docker and Kubernetes in the IT industry.
- Implementation of Docker and kubernetes allows the students to have hands-on experience.
- It will lead to new opportunities and job options for students.

Outcome of Workshop:

- The real-world implementation of technology
- Make students aware how technology has been impacting the people working in the respective fields.

- To enable students and other participants with technical skills for better career options.

Benefits of the workshops:

1. Certificate of participation.

Schedule: 4th Sept 2021

Duration: 1 Days

Expert

Mr. Deepak Mishra , Founder and CEO, Prodevans Technologies PVT LTD

Contents of Workshop

1. Getting Started with Docker
    a. Introduction to Docker
    b. Virtualization vs. Containerization
    c. Installation of Docker on Windows and Linux and EC2 Instances.
    d. Docker Architecture and Docker Registry
    e. Docker CLI and Dockerfile
2. Getting Started With Kubernetes
    a. Introduction to Kubernetes
    b. Kubernetes Features and Architecture
    c. Installation Process.
    d. Getting Starting OpenShift
    e. Introduction to OpenShift

Registration Process
- The google form link will be shared for the participants to register for the workshop including details like Name, Designation, Present Organization, Place.

- At the end of the workshop participants are required to fill the feedback form for the betterment and learning.

- Filling the feedback form will be compulsory for the candidates to receive the workshop certificates.