

Hands-On Workshop: "Cloud Computing Mastery: Virtualization, Platform Services, and Advanced Networking"

Date: 09/10/2024 Venue: JD Hall Expert: Mr. Harshad Sanghani CTO of ECFY Consulting Pvt. Ltd.

Number of Students Benefited: 200+

Jointly Organized by the Departments of CE/AI&DS, IT/CS, and ICT, CGPIT, Uka Tarsadia University

on October 9th, 2024. This workshop aimed to provide students with practical exposure to cloud computing technologies, focusing on key areas such as virtualization, cloud platforms, and advanced networking, in a highly interactive and hands-on learning environment.

Objectives

The primary objectives of the hands-on workshop were to:

- Educate participants about essential cloud computing components, including virtualization technologies, cloud platforms, and networking within cloud environments.
- Provide hands-on training to students, enabling them to gain practical skills and a deeper understanding of real-world cloud service architectures.
- Equip participants with the tools and knowledge to effectively manage cloud infrastructures and integrate networking solutions within cloud environments.

Workshop Sessions

The workshop commenced at 9:00 AM with an **Introductory Session on Virtualization**. In this hands-on session, Mr. Sanghani provided a detailed walkthrough of virtualization technologies, with a focus on optimizing server performance and resource allocation through virtual machines and hypervisors. Participants were able to engage directly with virtualization tools to understand their applications in cloud computing.

The second session delved into **Cloud Platform Services**, where students learned about configuring and managing cloud environments on platforms such as AWS, Azure, and Google Cloud. Mr. Sanghani demonstrated real-world use cases and configurations, guiding participants through practical exercises that emphasized the importance of scalability, security, and reliability in cloud-native technologies.

The final session explored **Advanced Networking in Cloud Environments**, focusing on key topics like load balancing, network security, and integrating on-premise and cloud-based networks. This session involved hands-on exercises, where students worked on optimizing network performance in cloud infrastructures, giving them firsthand experience in managing real-world cloud networks.

Outcomes

By the end of the hands-on workshop, students gained:

- 1. A deep understanding of Virtualization: Hands-on exposure to virtual machines, hypervisors, and resource optimization techniques in cloud environments.
- 2. **Practical experience with Cloud Platforms:** Direct interaction with cloud platform services (AWS, Azure, Google Cloud), enhancing students' technical proficiency in cloud management.
- 3. Enhanced Knowledge of Cloud Networking: Hands-on experience with advanced cloud networking concepts, such as security optimization and load balancing.
- 4. **Cloud Management Skills:** Essential practical skills for managing cloud infrastructures, integrating networking components, and troubleshooting real-time challenges in cloud environments.

Glimpses of the sessions













Feedback and Conclusion

The feedback from participants was overwhelmingly positive, with many students highlighting the benefits of the **hands-on approach**. The practical sessions led by industry expert Mr. Harshad Sanghani provided invaluable insights, bridging the gap between theoretical knowledge and real-world applications in cloud computing.

In conclusion, the "Cloud Computing Mastery" hands-on workshop was a tremendous success. It effectively equipped students with both theoretical and practical skills in virtualization, cloud platforms, and advanced networking. Future workshops could delve further into these subjects, offering even more advanced hands-on learning opportunities to enrich the students' knowledge and expertise.