



NEW HORIZON COLLEGE OF ENGINEERING

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DEPARTMENT OF MCA WORKSHOP REPORT

Topic : Workshop on Containerization and Orchestration of Applications

Date : 3rd August 2024

Timing : 10.00 am – 1.00 pm

Venue : Department of MCA

Speaker : Mr. Ankit Kumar, Senior Software Engineer,
Oracle health AI, Bangalore.

Coordinator : Dr. B Nithya Ramesh, Associate Professor

Convenor : Dr. V Asha, Professor & Head, Department of MCA

Poster:



NEW HORIZON COLLEGE OF ENGINEERING

Department of Master of Computer Applications
in association with
Computer Society of India - student chapter
Organizes
A workshop on

Containerization & Orchestration of Applications

 3rd August, 2024 | 10:00 AM

 MCA Lab

 2nd Semester Students

Faculty Coordinator
Dr. B. Nithya Ramesh
Associate Professor - MCA

Convenor
Dr. V Asha
Professor & Head - MCA



Mr. Ankit Kumar
Senior Software Engineer
Oracle Health & AI



Profile of the Expert:

Mr. Ankit Kumar is currently working as Senior Software Engineer at Oracle health AI, Bengaluru. He is proficient with hands-on experience in container technologies and orchestration tools, designing, developing, and optimizing microservices-based applications. Proficient in Java, Hibernate, and Springboot with a focus on delivering scalable and efficient solutions. Demonstrated expertise in Kubernetes migration and developing Spark jobs.

Objective:

The objective of the workshop was to provide participants with a comprehensive understanding of container technologies and orchestration tools. The workshop aimed to equip attendees with the knowledge and skills required to efficiently manage and deploy containerized applications in a modern IT environment.

Content:

Introduction to Containerization with its understanding, deployment of containers using Dockers, Orchestration tools with a focus on Kubernetes and their usage to manage containerized applications were demonstrated during the session.





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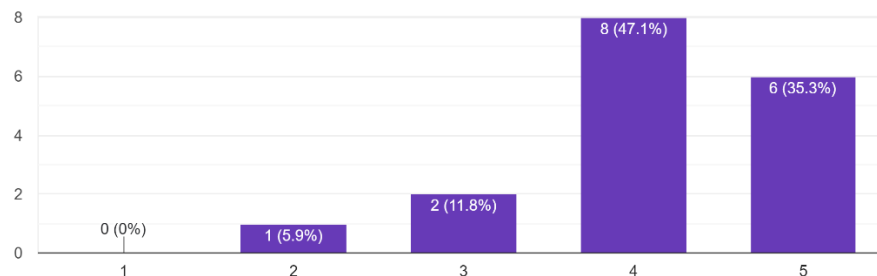
Topics Covered:

The workshop included sessions on the fundamentals of containerization, practical experience with Docker, and an introduction to Kubernetes. Participants learned how to set up and manage Docker containers, use Docker Compose for multi-container applications, and deploy and scale applications using Kubernetes. Best practices for monitoring, logging, security, and CI/CD pipelines were also discussed. The hands-on sessions with Docker provided participants with practical skills in creating and managing Docker containers and images. They learned how to use Docker Compose to define and run multi-container applications. The workshop introduced participants to Kubernetes, focusing on its architecture and components. Students learned how to set up a Kubernetes cluster, deploy applications, and manage them at scale. The session covered important aspects such as monitoring, logging, security, and CI/CD pipelines, which are essential for running containerized applications in production environments.

Sample Feedback:

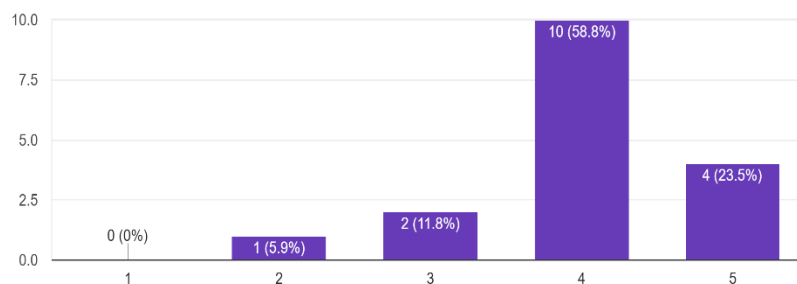
Quality of the training content

17 responses



Effectiveness of the examples depicted during the session.

17 responses



Workshop on Containerization and Orchestration of Applications

Date: 3rd August 2024
Attendance

Participants: Semester II MCA Students

S#	Student Name	USN
1	AFZAL KHAN	1NH23MC005
2	ANMOL GUPTA	1NH23MC018
3	ANURAG KAKOTI NATH	1NH23MC019
4	ANUSHKA GEHLOT	1NH23MC020
5	ARAVINDH J	1NH23MC021
6	CHANDAN S	1NH23MC043
7	CHIRANTHAN B	1NH23MC044
8	DEEPAK A	1NH23MC045
9	DINESH K S	1NH23MC048
10	GOWTHAM S	1NH23MC056
11	HIMAVARDHAN R	1NH23MC062
12	IBRAHIM PASHA J	1NH23MC063
13	JAYASHRI H V	1NH23MC064
14	JEEVAN R	1NH23MC065
15	K T DINESHA	1NH23MC066
16	KAPOPARA HARSH MAHESHBHAI	1NH23MC070
17	KARTHIK TIMMAPP NAIK	1NH23MC071
18	KIRAN M SHET	1NH23MC072
19	KOUSHIK H K	1NH23MC075
20	KUNAL KUMAR MANDAL	1NH23MC077
21	KWAZA MOHINUDDIN	1NH23MC080
22	LATHA U S	1NH23MC081
23	LAXMI N	1NH23MC082
24	MADHU R	1NH23MC085
25	MANJUNATHA	1NH23MC086
26	MANOJ KUMAR S	1NH23MC087
27	MANOJ S	1NH23MC088
28	MONISH K	1NH23MC093
29	MONU KUMAR YADAV	1NH23MC094
30	NIRANTH BHARADWAJ	1NH23MC099
31	PARTHIBAN E	1NH23MC102
32	PAVAN S REDDY	1NH23MC103
33	POOJA MANWANI	1NH23MC105
34	PRAJWAL RAJENDRA METAGUDDA	1NH23MC107
35	PRATHIKSHA NISHAD	1NH23MC111
36	RAHUL B KABBIN	1NH23MC116
37	RAJESHWARI	1NH23MC118
38	RAJIV KUMAR	1NH23MC119
39	RANGANATH N T	1NH23MC121
40	RASHI JAIN	1NH23MC123
41	SHAAMKUMAR S	1NH23MC133
42	SHAIK KHASIM BASHA	1NH23MC134
43	SHAIK SADIK BASHA	1NH23MC135
44	SHAJEETH A S	1NH23MC136
45	SHARON J PEREIRA	1NH23MC138
46	SOURAV KUMAR SHAW	1NH23MC145
47	SUDHARSAN S	1NH23MC150
48	SUPRIYA KUMARI	1NH23MC153
49	SWASTHIK	1NH23MC156
50	TAPAN DAHAL	1NH23MC159
51	USADADIYA MUKESH DINESHBHAI	1NH23MC164
52	VADDI SAI GOWTHAM	1NH23MC165
53	VEMA VENKATA NAGA SAI PHANINDRA KUMAR	1NH23MC168
54	VISHAL PANDEY	1NH23MC174
55	VISHAL RAJ	1NH23MC175
56	YASHWANTH M B	1NH23MC178
57	YUVARAJ V	1NH23MC182

Outcome:

The workshop effectively met its objectives, teaching the students with valuable skills for managing containerized applications in modern IT environments. The introduction to containerization clarified the benefits over traditional virtualization, and practical exercises with Docker helped solidify their understanding of container creation and management. Learning Docker Compose was particularly useful for handling multi-container applications. The hands-on activities of setting up a Kubernetes cluster and deploying applications, will be helpful for the students in using these tools in real-world scenarios.

Faculty Coordinator**Dr. B Nithya Ramesh****Head of Department, MCA****Dr. Asha V**