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| **Day** | **Time Schedule** | **Topics Covered** |
| 1 | 9:30 Am – 11:30 Am | 1. Service Networking: ClusterIP, NodePort & Load Balancer ,Ingress Rules. |
|  | 11:30 Am – 11:40 am | Tea Break |
|  | 11:40 am – 1pm | 1. Working with Kubernetes Scheduler. 2. Pod Scheduling within the Kubernetes Cluster 3. Taints, Tolerances, Node Selector, labels & Selectors |
|  | 1pm – 1:40 pm | Lunch break |
|  | 1:40 pm – 4:00 pm | **5 . Storage**   * Managing Data in the Kubernetes Cluster * EmptyDir, hostPath, PV, PVC * Volume Access Modes * Applications with Persistent Storage * ConfigMaps, Secrets   **Lab:** Working with Kubernetes Volume Service  **Lab:** Working with ConfigMaps and Secrets |
|  | 4:00 pm – 4:10 pm | Tea Break |
|  | 4:10 pm – 6:30 pm | **6. Logging and Monitoring**   * Describe Resources * Pod/container logs * Metric Server & top command * Events   **Lab**: Working on Logs and Events  **Lab**: Working with Metric Server  **Lab**: Working with HPA |

**1. Kubernetes Networking and Service**

* Service Networking: ClusterIP, NodePort & Load Balancer
* Ingress Rules

**Lab:** Exposing Applications using various types of Services

**Lab:** Install and Configure Ingress Controller

**2/3/4. Working with Kubernetes Scheduler**

* Pod Scheduling within the Kubernetes Cluster
* Configuring the Kubernetes Scheduler
* Running Multiple Schedulers for Multiple Pods
* Taints, Tolerances, Node Selector, labels & Selectors
* Scheduling Pods with Resource Limits and Label Selectors
* Displaying Scheduler Events

**Lab:** Manually scheduling Pod

**Lab:** Scheduling Pod based on Node Selector and Labels

**Lab:** Taints and Tolerations

**Lab:** Working with Affinity and Anti-Affinity

**5. Storage**

* Managing Data in the Kubernetes Cluster
* EmptyDir, hostPath, PV, PVC
* Volume Access Modes
* Applications with Persistent Storage
* ConfigMaps, Secrets

**Lab:** Working with Kubernetes Volume Service

**Lab:** Working with ConfigMaps and Secrets

**6. Logging and Monitoring**

* Describe Resources
* Pod/container logs
* Metric Server & top command
* Events

**Lab**: Working on Logs and Events

**Lab**: Working with Metric Server

**Lab**: Working with HPA