

Exam Detailed Outline

Docker



- Concept of the container.
- Docker Architecture.
- Docker installation on a Linux machine.
- Create, manage, and remove containers from Docker.
- Pull, manage, and remove OCI images from Docker.
- Deploying Multi-tier applications on Docker.
- Exposing the application inside a container to the outside world.
- Describe the Docker network.
- How to create an OCI image using Dockerfile.
- Use of volumes with Docker for persistent volume.
- Attaching a volume to the container in Docker.
- Saving an OCI image as a tarball.
- Docker Compose.
- Public and private registries in Docker.
- Create a private registry in Docker.
- Adding OCI images to the private registry

Podman



- What is Podman.
- What is daemon-less service.
- Difference between docker vs Podman vs Buildah.
- Podman Architecture.
- Podman installation on a Linux machine.
- Create, manage, and remove containers from Podman.
- Create, manage, and remove images from Podman.
- Running a container inside a pod.
- Running a container using a normal user.
- Deploying Multi-tier applications on Podman.
- Exposing the application inside a container to the outside world.
- Podman Network.

- How to create OCI image using Dockerfile or Containerfile.
- The use of volumes with Podman for persistent volume.
- Attaching a volume to the container in Podman.
- Saving an OCI image as a tarball.
- Extract the OCI image from a tarball.

Buildah

- What is OCI.
- Buildah installation on a Linux machine.
- Container Concept in Buildah.
- Creating an OCI image using Dockerfile / Container file.
- Building an image from Scratch using Buildah.
- Creating a private registry.
- Adding OCI images to the private registry.
- Use cases of Buildah.



Containerd

- What is Containerd.
- Containerd installation on a Linux machine.
- Managing images using containerd.
- Create, manage, and remove containers from containerd.
- Use cases of Containerd.



Reference URL

- 1) <https://docs.docker.com/>
- 2) <https://docs.podman.io/>
- 3) <https://buildah.io/>
- 4) <https://containerd.io/>