Dynatrace Training Lab Document - Day 1 (Detailed Steps)

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1. Dynatrace Overview & Value Proposition

Objective: Understand Dynatrace's capabilities and how it supports modern observability.

Lab Steps:

1. Visit https://www.dynatrace.com.
2. Explore product sections: APM, Infrastructure Monitoring, RUM, Log Monitoring, and Davis AI.
3. Create a feature-capability matrix:
   - Column 1: Feature (e.g., APM)
   - Column 2: Use Case (e.g., Trace slow transactions)
   - Column 3: Example (e.g., Trace a Java web request)
4. Write a short description (~100 words) on how Dynatrace helps monitor microservices, containers, and cloud-native apps.

2. Dynatrace Architecture

Objective: Understand the Dynatrace platform structure.

Lab Steps:

1. Study a Dynatrace architecture diagram (trainer-provided).
2. Identify and note components:
   - OneAgent
   - ActiveGate
   - Cluster Node
3. Explain the communication between components:
   - OneAgent -> ActiveGate -> Cluster
   - Role of each component in data ingestion and processing
4. List key differences between SaaS vs. Managed models.
5. Document considerations for scaling the cluster based on host units.

3. Dynatrace Deployment on Azure

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Objective: Deploy Dynatrace in Azure and configure monitoring.

Lab Steps:

1. Provision a VM in Azure.
2. Download and install the OneAgent using the Dynatrace GUI or script.
3. Enable Azure Monitor integration from the Dynatrace Hub.
4. Set up monitoring for an AKS (Azure Kubernetes Service) cluster:
   - Install OneAgent DaemonSet using Helm.
   - Verify container metrics and pod health.
5. Document observed telemetry (CPU, memory, pod status).

4. Cluster Management Console (CMC)

Objective: Perform admin operations via CMC in a Managed cluster.

Lab Steps:

1. Access the CMC via https://<your-cluster-url>:8021
2. Navigate to the Node Management section.
3. View available nodes and their health status.
4. Check licensing and quota usage.
5. Review the update section and simulate a rolling update.

5. ActiveGates

Objective: Install and configure an Environment ActiveGate.

Lab Steps:

1. Download the ActiveGate installer.
2. Install it on a dedicated VM in a DMZ/subnet.
3. Register with Dynatrace tenant.
4. Validate in CMC or UI under "Deployment Status".
5. Test use cases:
   - Routing OneAgent traffic
   - AWS or Azure integration using this ActiveGate

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6. OneAgents

Objective: Deploy and understand OneAgent's full-stack capabilities.

Lab Steps:

1. Log into Dynatrace and navigate to Deploy Dynatrace > Start Installation.
2. Choose the appropriate OS (Linux/Windows) and follow the scripted install.
3. Validate agent installation:
   - Check the host on the dashboard
   - Check detected processes
4. Configure auto-updates in the deployment settings.
5. Create a table of supported technologies from documentation.

7. User Management - Managed

Objective: Configure access control.

Lab Steps:

1. Open the CMC.
2. Go to User Management > Groups > Add Group.
3. Create roles: Viewer, Admin, Custom Role.
4. Add users and assign them to roles.
5. Explore federation/SSO options (mock or theory if actual SSO is not available).

8. Organizing Your Environment

Objective: Use tagging and zones for better visibility and control.

Lab Steps:

1. Create auto-tag rules:
   - Based on environment (e.g., Environment = Production)
   - Based on process name or service name
2. Manually tag a few services.
3. Create two management zones:

- Zone 1: Production Services
- Zone 2: Development Hosts

4. Assign roles to zones and test visibility by logging in as a user with scoped access.
5. Use filters to validate management zone boundaries.

End of Day 1 Lab Activities

Use the Dynatrace demo environment or your own sandbox instance to complete all exercises. Validate each lab output with screenshots or summaries.

References:

- Dynatrace Documentation: https://docs.dynatrace.com
- Dynatrace University: https://university.dynatrace.com