

Application Deployment with MAESTRO

Challenge Title: Application Deployment with MAESTRO

Challenge Context and Purpose:

Maestro is an advanced DevOps framework for cloud orchestration and dynamic resource management. It offers a dashboard that enables the design, deployment, and management of cloud-native, containerized components across both public and private cloud environments, and tools for integrating edge resources.

During the hackathon, participants will interact with MAESTRO in a controlled environment for the creation and deployment of an application in a K8s cluster.

Goals of the Challenge:

- Assess the usability and effectiveness of MAESTRO.
- Gather feedback on the clarity of risk scores and mitigation suggestions.

Key Tasks for Participants:

- Deploy a sample application within MAESTRO.
- Document the overall usability and clarity of the workflow.

Feedback and Evaluation Requirements.

- Complete an evaluation form outlining: ease of use, clarity of outputs, and perceived value.

Deliverables:

- Completed evaluation form.
- Short notes or recommendations for improving usability and functionality.

Resources and Tools Provided:

- Access to MAESTRO
- Documentation and quick-start guide.
- Predefined demo application for testing.

Estimated Time Requirement: ~10 minutes

Contact Point (Optional): Ioannis Ledakis, gledakis@ubitech.eu

Instructions:

URL:

<https://cybersuite-maestro.euprojects.net>

Username:

huser1

Password

Huser1abc!

/* Create a DBMS application */

1. From the sidebar, navigate to **Applications**
2. In the upper right corner, click on '**Create new**'
3. Type an **application name** in the input bar up left (e.g. demodbms)
4. Search and choose **components**

Search for mariadb (our database component)

Search for phpmyadmin (a management interface component)

5. Fulfill the **graph dependencies** by linking the components. Hover over the small circle of the phpmyadmin component and click to drag a line to the mariadb component.
6. Maestro will identify the interface connection and you have to select it and click save.
7. Then **Save** your application, bottom left button

/* Deploy the DBMS application */

1. From the sidebar, navigate to **Applications**.
2. Find the name of your application in the table, and from the actions button (three dots), click on **Create Instance**.
3. Give your instance a **name** in the input bar up left (e.g. hackathondbms)
4. Select **provider** from the left sidebar (cybersuite-k8s-hackathon)
5. Click **proceed** to deploy
6. Maestro will navigate to the **instances** page, and you can see your instance with a status WAITING_ORCHESTRATOR. Normally a refresh after ~30 seconds will show a DEPLOYED status
7. When the instance status turns to deployed, from the actions menu of the instance (three dots), click **View Graph**
8. You should see the components with a green color, indicating the successful deployment, and **information about the deployment** (IPs, ports etc.)
9. To clear the resources, when finished, click undeploy from the actions menu to remove the instance.