

Exercise 03:

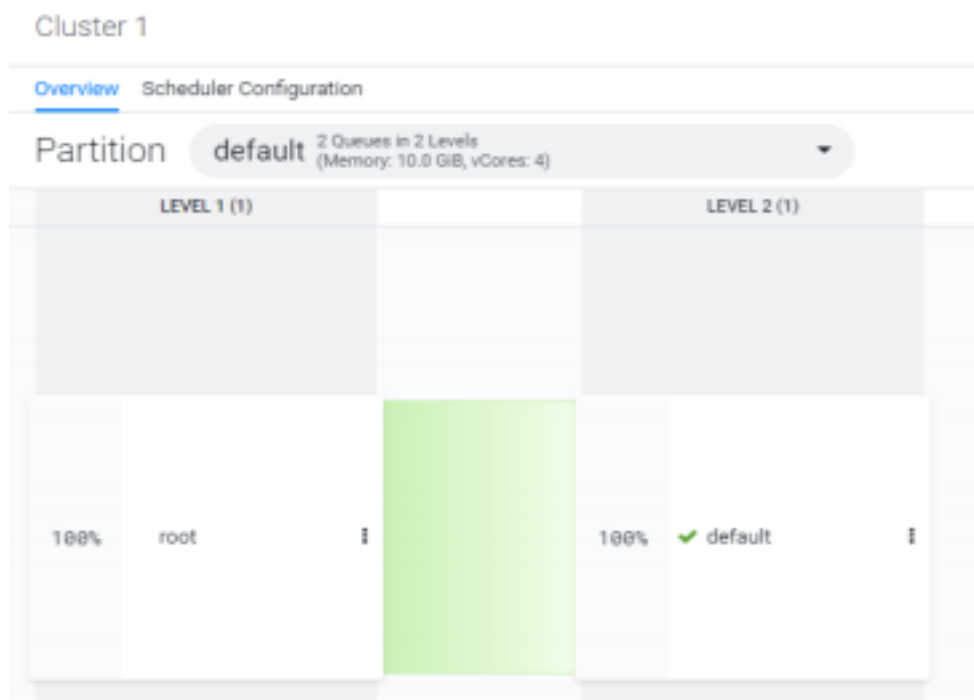
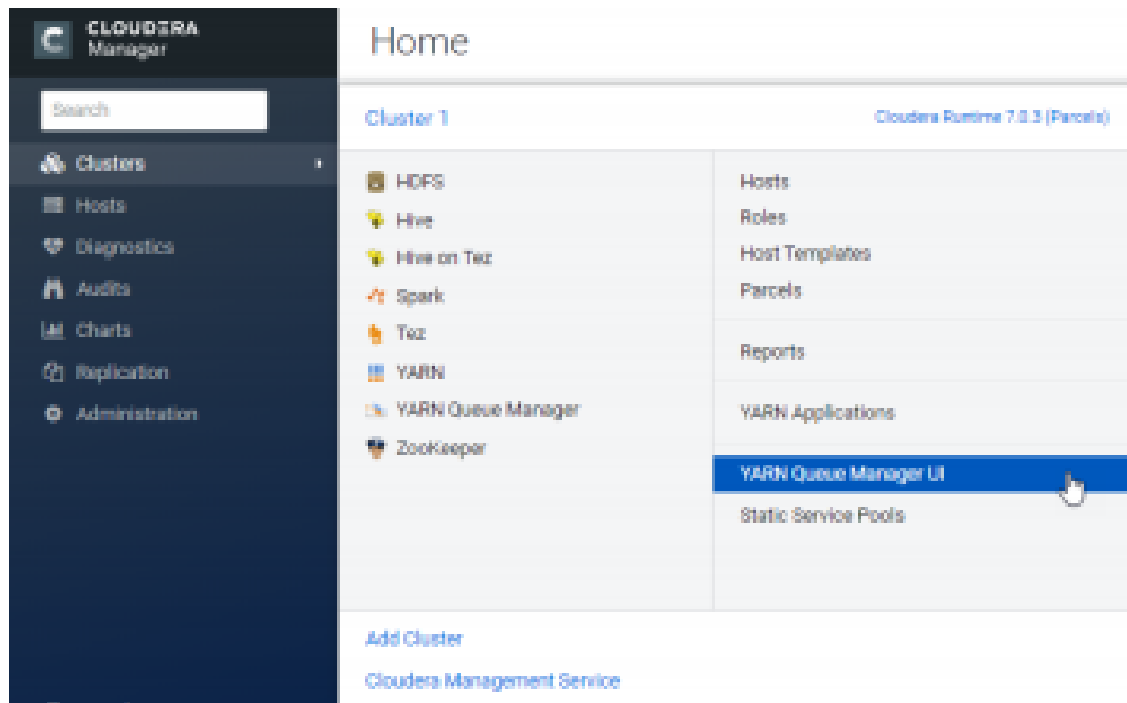
Working with YARN Containers & Queues



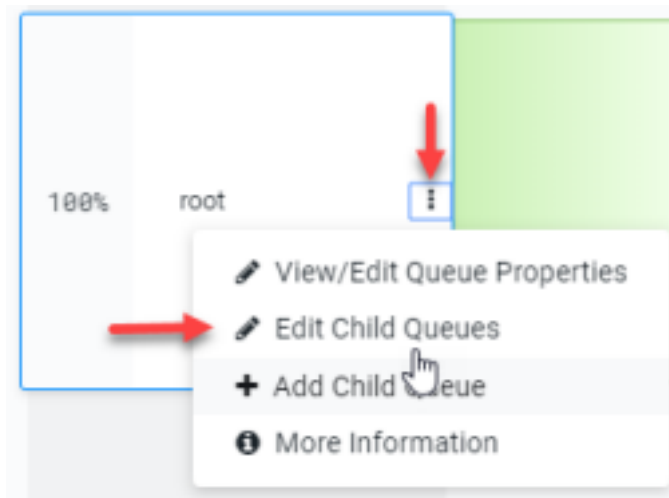
Understanding and Configuring YARN Queues

YARN queue settings and state behavior.

1. Open Cloudera Manager <http://localhost:7180>
2. In Cloudera Manager, click Clusters.
3. Select the **YARN Queue Manager UI**.



4. Click on “**Edit Child Queues**”



5. Click on “**Add Queue**”

root ✕

Memory: 10240; vCores: 4

CONFIGURED CAPACITY	MAXIMUM CAPACITY	
100 %	100 %	✓ default Memory: 10.0 GiB; vCores: 4

[+ Add Queue](#)

Total Configured Capacity: 100%

Cancel Save

6. In **Queue Name**. Specify **dev** as its name Configure the following settings in dev:

- **Configured Capacity:** 25%
- **Maximum Capacity:** 100%

In Default Queue

Configure the following settings:

- **Configured Capacity:** 75%
- **Maximum Capacity:** 100%

root ✕

Memory: 10240; vCores: 4

CONFIGURED CAPACITY	MAXIMUM CAPACITY	
75 %	100 %	✓ default Memory: 10.0 GiB; vCores: 4
25 %	100 %	dev

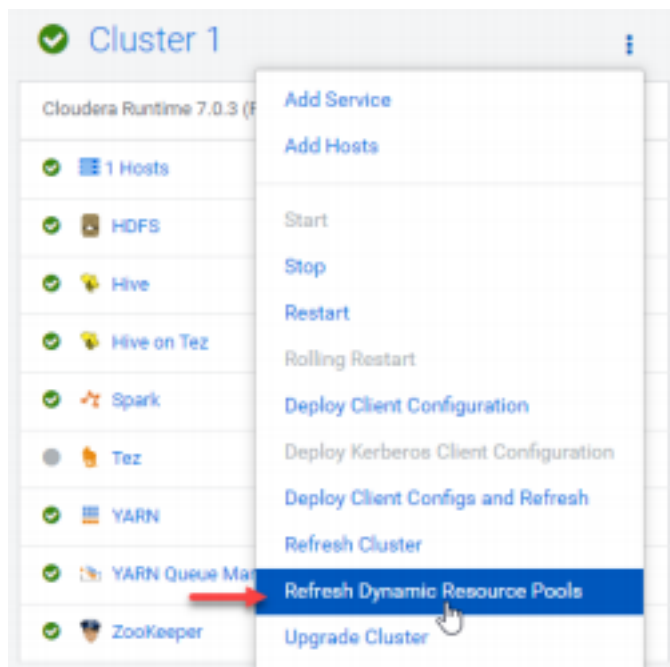
ⓘ Additional queue properties can be set later by clicking [View/Edit Queue Properties](#) on the new queue's menu.

Total Configured Capacity: 100%

7. Click on save.

Note: Ignore the error “Failed to add queue”

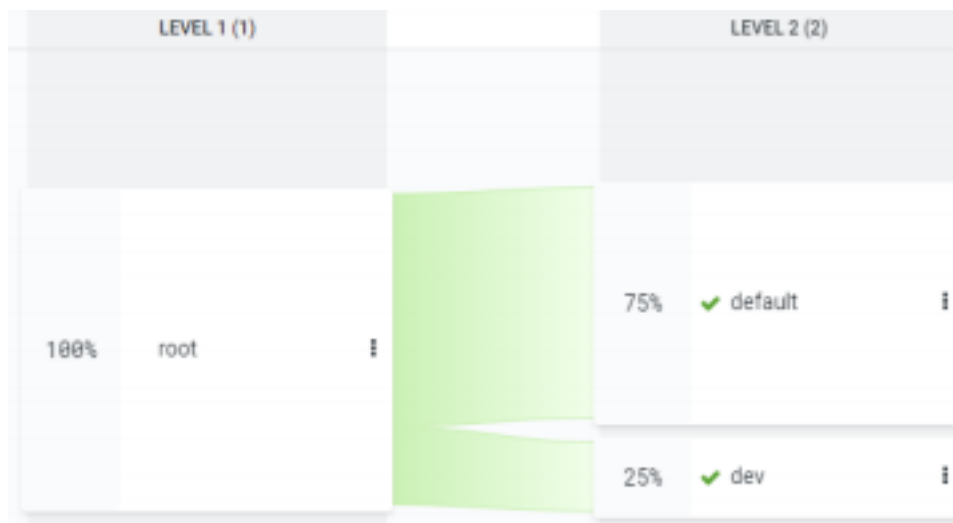
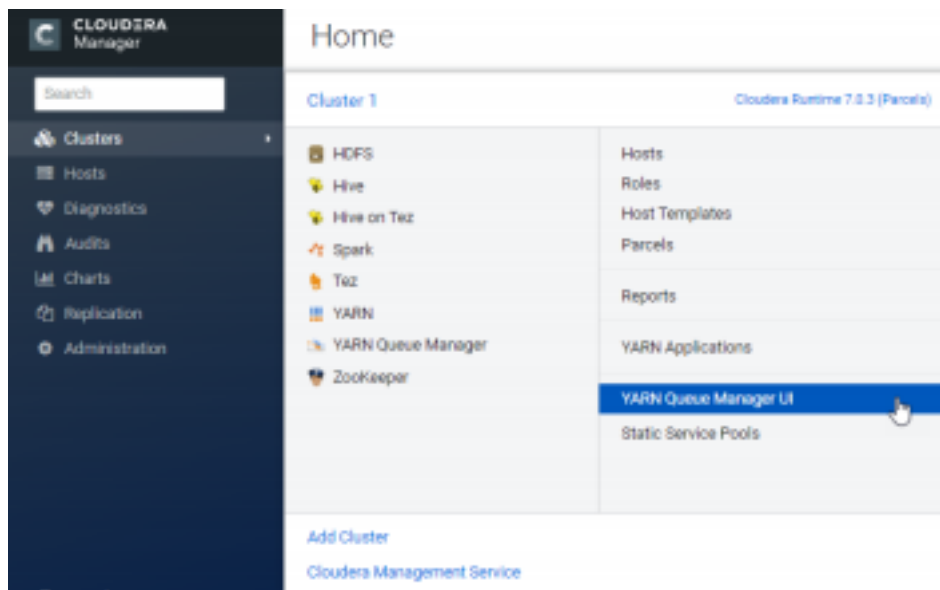
8. Click on **Refresh Dynamic Resource Pools**



Note: Ignore warning if there is any.

9. In Cloudera Manager, click on Clusters.

10. Select the **YARN Queue Manager UI**.



Submit Spark Applications in different Queues

Launch two instances of wordcount YARN job in two terminal windows.

1. Open Terminal, Change to the
/opt/cloudera/parcels/SPARK3/lib/spark3/examples/jars directory.

```
cd /opt/cloudera/parcels/SPARK3/lib/spark3/examples/jars
```

2. In terminal window, Import sherlock.txt file into HDFS

```
hdfs dfs -put ~/training/data/sherlock.txt data/
```

3. Type the Spark Submit command to execute wordcount and pass **--queue dev**.

Terminal

```
spark3-submit --queue dev --class  
org.apache.spark.examples.JavaWordCount --master yarn --deploy-mode  
cluster spark-examples_2.12-3.0.0.2.99.0.0-23.jar data/sherlock.txt  
output
```

End of Exercise