

TY B.Tech. (CSE) – II [2024-25]

6CS371 : Advanced Database System Lab.

Assignment No. 10

Cassandra Clustering

1. Setup a multi-node Cassandra Cluster on single windows machine. Give your group name (2025GRP**) to cluster. Follow the steps given in below link

<https://extendit.us/articles/steps-configure-multiple-nodes-cassandra-single-windows-machine>

Repeat above experimentation with physical more than 3 machines in lab.

2. Install the DataStax OpsCenter community edition (<https://www.datastax.com/blog/datastax-community-217-and-2016-ready-download>) and configure it for above cluster formed.
3. Use Case - **Weather Station IoT Temperature Sensor Data** : There are set of weather stations at different remote location with “weatherStationID”. Each station record the temperature after every 5 minutes and push the data to nearest node in above cluster. Design the cluster database to hold these weather data. User should be able to retrieve the data in any dimensions.
4. Demonstrate the cluster operations of above use case using OpsCenter.

Note : Follow the submission guidelines.

Deadline : 06/04/2025

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