As a Data Engineer with expertise in Cloudera and its ecosystem, I can provide you with a detailed guide on configuring a Cloudera cluster. Cloudera, a platform for big data, offers a unified environment that combines multiple big data utilities such as Hadoop, Hue, NiFi, CFM, Atlas, and Ranger.

Overview of Cloudera Cluster

A Cloudera cluster typically consists of a distributed environment where multiple nodes work together to handle large volumes of data. The core components include:

1. **Hadoop Distributed File System (HDFS):** For storing data across all the nodes.
2. **Yet Another Resource Negotiator (YARN):** Manages and schedules resources.
3. **Various Data Processing Tools:** Like Apache Spark, Hive, etc.
4. **Management Tools:** Such as Cloudera Manager, Hue, NiFi, Atlas, and Ranger.

Configuration Settings

Configuration settings in Cloudera are managed through Cloudera Manager. Key areas include:

- **Cluster Setup:** Defining the number of nodes, memory, CPU cores, etc.
- **HDFS Configuration:** Settings related to block size, replication factor, etc.
- **YARN Settings:** Configuring resource allocation, scheduling, etc.
- **Security Settings:** Kerberos authentication, encryption, etc.
- **Monitoring and Logging:** Setting up alerts, log management, etc.

Modifying Service Configurations

1. **Through Cloudera Manager:**
   - Navigate to the service you want to modify.
   - Go to the Configuration tab.
   - Make necessary changes and save.
2. **Using Configuration Files:**
   - Directly edit configuration files like `hdfs-site.xml`, `core-site.xml`, etc.
   - Restart the service for changes to take effect.

Configuration Files

Important configuration files include:

- `hdfs-site.xml`: HDFS configurations.
- `core-site.xml`: Core configurations for Hadoop.

- `yarn-site.xml`: YARN-related settings.
- `mapred-site.xml`: Configurations for MapReduce.

Managing Role Instances

- **Add/Remove Roles:** Through Cloudera Manager, you can add or remove roles like NameNode, DataNode, ResourceManager, etc.
- **Balancing Role Instances:** Ensure roles are balanced across the cluster for optimal performance.

Adding New Services

1. In Cloudera Manager, use the "Add a Service" wizard.
2. Choose the service you want to add (e.g., Apache Spark, Kafka).
3. Follow the on-screen instructions to configure the service.

Adding and Removing Hosts

- **Adding Hosts:** Use the "Add Hosts" wizard in Cloudera Manager to integrate new nodes into the cluster.
- **Removing Hosts:** Decommission the node first and then remove it from the cluster using Cloudera Manager.

Hands-On Exercise: Configuring a Hadoop Cluster

1. **Setup Cluster Nodes:** Start with a minimum of three nodes.
2. **Install Cloudera Manager:** Deploy Cloudera Manager on one of the nodes.
3. **Cluster Configuration:**
   - Use the Cloudera Manager wizard to configure the cluster.
   - Assign roles to each node (e.g., NameNode, DataNode).
4. **Configure HDFS, YARN, and Other Services:** Use the Cloudera Manager interface.
5. **Security Configuration:** Set up Kerberos for authentication.
6. **Add Additional Services:** Like Spark, Kafka, etc., as needed.
7. **Test and Validate:** Run test jobs to ensure the cluster is functioning correctly.

This guide provides a high-level overview. Detailed implementation would depend on specific use cases and the hardware/software environment of your cluster.