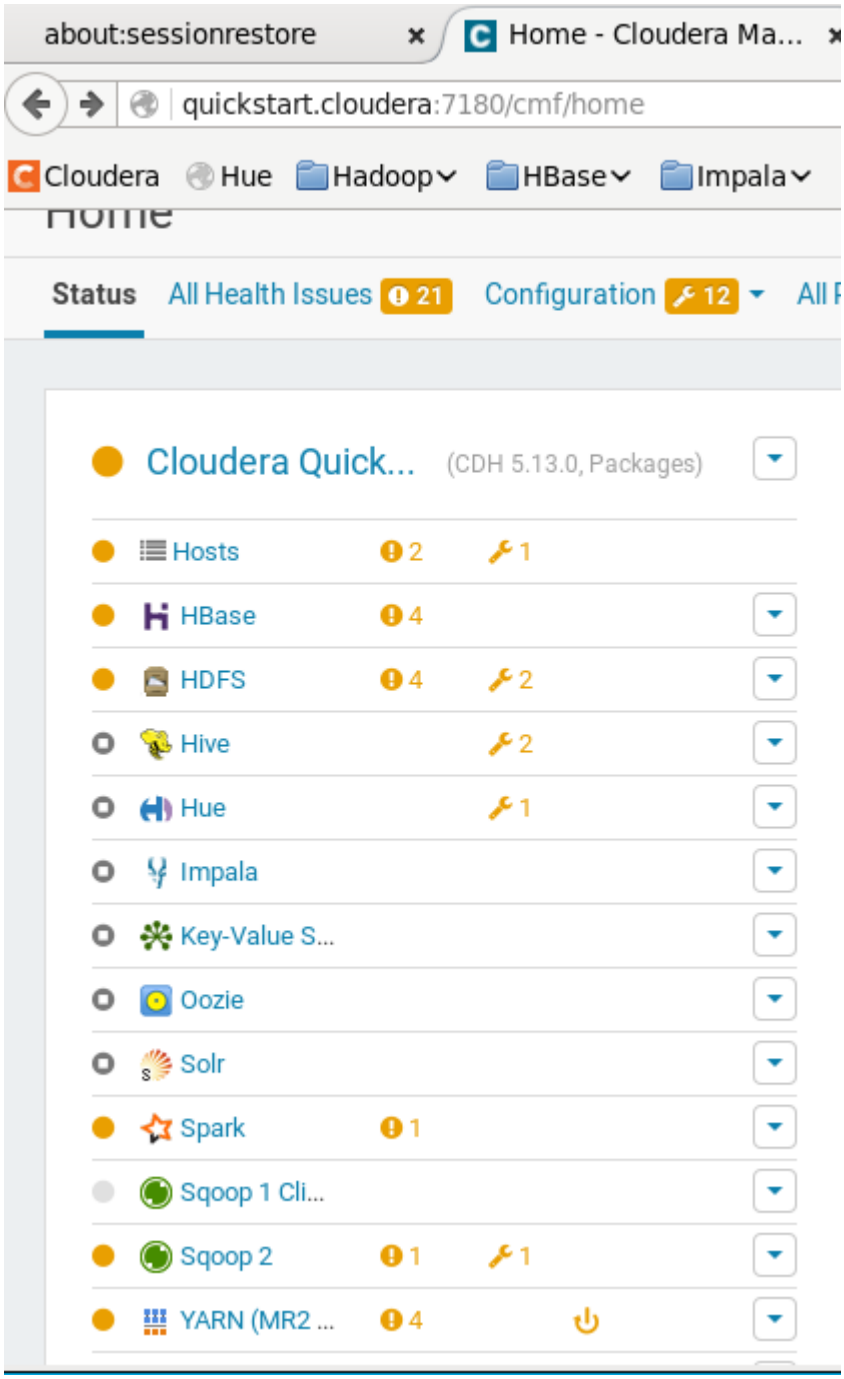
Practical 8 - Write a Pig Script for solving counting problems.

Step 1: Start Necessary Services

Before starting the practical, ensure that the necessary services, including HDFS,YARN are running on the Cloudera cluster.



Step 2: Create Input File input.csv

Open a new terminal and create a CSV file named input.csv:

```
[cloudera@quickstart ~]$ cat > /home/cloudera/input.csv
People die when they are killed.
Don't talk, it makes you sound stupid.
The ocean is so salty because everyone pees in it.
If you see a stranger, follow him.^Z
[1]+  Stopped                 cat > /home/cloudera/input.csv
```

View the data –

```
[cloudera@quickstart ~]$ cat /home/cloudera/input.csv
People die when they are killed.
Don't talk, it makes you sound stupid.
The ocean is so salty because everyone pees in it.
[cloudera@quickstart ~]$
```

Step 3: View Data Through Pig

To view the data through Pig, enter the Pig shell:

```
[cloudera@quickstart ~]$ pig -x local
```

Step 4: Pig Shell Prompt

After the above command, your prompt will change to (grunt>).

```
grunt>
```

Step 5: Pig Code for Word Count

Enter the following Pig code to get the word count of your file:

```
grunt> lines = LOAD '/home/cloudera/input.csv' AS (line:chararray);
grunt> words = FOREACH lines GENERATE FLATTEN(TOKENIZE(line)) as word;
grunt> grouped = GROUP words BY word;
grunt> wordcount = FOREACH grouped GENERATE group, COUNT(words);
grunt> DUMP wordcount;
```

Step 6: View the Output

Once you enter after writing the above code, you will see the output as:

```
HadoopVersion   PigVersion      UserId  StartedAt       FinishedAt      Features
2.6.0-cdh5.13.0 0.12.0-cdh5.13.0        cloudera        2024-02-22 00:32:13     2024-02-22 00:32:27     GROUP_BY

Success!

Job Stats (time in seconds):
JobId   Alias   Feature Outputs
job_local1793176200_0001        grouped,lines,wordcount,words   GROUP_BY,COMBINER       file:/tmp/temp443132024/tmp2122179645,

Input(s):
Successfully read records from: "/home/cloudera/input.csv"

Output(s):
Successfully stored records in: "file:/tmp/temp443132024/tmp2122179645"

Job DAG:
job_local1793176200_0001
```

```
(in,1)
(is,1)
(it,1)
(so,1)
(The,1)
(are,1)
(die,1)
(it.,1)
(you,1)
(pees,1)
(talk,1)
(they,1)
(when,1)
(makes,1)
(ocean,1)
(salty,1)
(sound,1)
(People,1)
(Don’t,1)
(because,1)
(killed.,1)
(stupid.,1)
(everyone,1)
grunt>
```