**Lab2**

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**PART III**

**User Case:** Coursera provides multiple courses online. Each course got many details and multiple users try learn from Coursera. Provide the courses user looking for by the topic or whether courses offered by universities or companies, how difficult is the course for the user to decide based on his current skill set if he/she can do the course

**Created Table with the coursera with the following fields, PRIMARY KEY for this table are (course\_id, Created\_By)**

Field Name Type Details

course\_id int Unique number for each course

Course\_Name text Name of the Course

About\_Course text Description about the course

Created\_By text Who created the course (Universities/Companies like IBM)

Thought\_by text Who is teaching the course

Basic\_Info text Short description of the course what do they cover

Level text Level of the course (Basic/Intermediate etc)

Language text What are the languages course is supported

How\_to\_pass text Details to pass the exam (how many tests or assignments)

Rate decimal Rate of the course

Creation of the Table:

CREATE TABLE coursera (

course\_id int,

Course\_Name text,

About\_Course text,

Created\_By text,

Thought\_by text,

Basic\_Info text,

Level text,

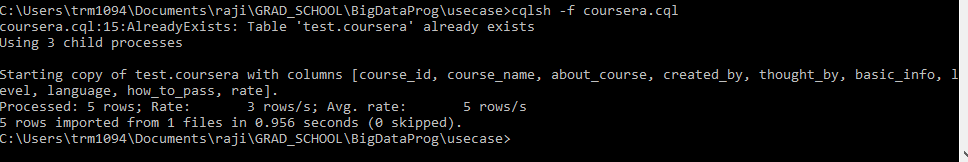
Language text,

How\_to\_pass text,

Rate decimal,

PRIMARY KEY(course\_id, Created\_By)

);



**Created data for courses related to Data Science and Java :**

Introduction to Data Science in Python

What is Data Science?

SQL for Data Science

HTML, CSS, and Javascript for Web Developers

Java Programming: Solving Problems with Software

**Import the data using:**

COPY coursera (course\_id,Course\_Name,About\_Course,Created\_By,Thought\_by,Basic\_Info,Level,Language,How\_to\_pass,Rate) FROM 'coursera.csv' WITH HEADER=True AND DELIMITER='|';

**Create Index for course\_name and About\_course :**

CREATE CUSTOM INDEX crname\_index ON coursera(course\_name)

USING 'org.apache.cassandra.index.sasi.SASIIndex'

WITH OPTIONS = {

'mode': 'CONTAINS',

'analyzer\_class': 'org.apache.cassandra.index.sasi.analyzer.NonTokenizingAnalyzer',

'case\_sensitive': 'false'};

CREATE CUSTOM INDEX abt\_course\_index ON coursera(About\_Course)

USING 'org.apache.cassandra.index.sasi.SASIIndex'

WITH OPTIONS = {

'mode': 'CONTAINS',

'analyzer\_class': 'org.apache.cassandra.index.sasi.analyzer.NonTokenizingAnalyzer',

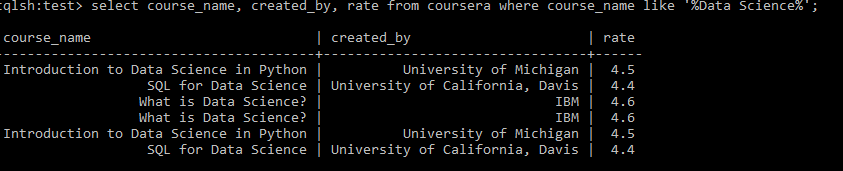
'case\_sensitive': 'false'};

**Queries:**

1. Find out the course by the topic:

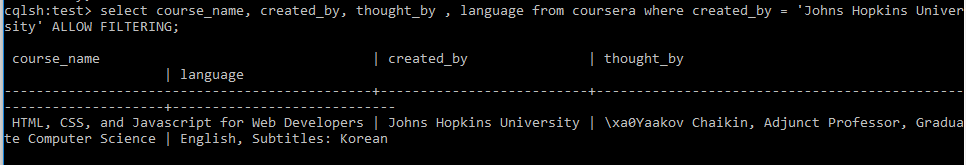
select course\_name, created\_by, rate from coursera where course\_name like '%Data Science%';

As Index added on course name can search course name like



1. Find out if the course is offered by Johns Hopkins University

select course\_name, created\_by, thought\_by , language from coursera where created\_by = 'Johns Hopkins University’



1. Find out level of difficulty for Java courses what is the criteria to pass that way user can decide which course to take

select course\_name, basic\_info, level ,how\_to\_pass from coursera where course\_name like '%Java%' ALLOW FILTERING;

