DSC 650 – Big Data

Week 6 Assignment

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A screen shot of a computer

Description automatically generated

Screenshot of the table creation command and its output

A screenshot of a computer

Description automatically generated

Screenshot of the tables listed in HBase

A screen shot of a computer

Description automatically generated

Screenshot of the commands used to add data and their outputs.

A screenshot of a computer

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Screenshot of the query (get 'students', '1') and its output

A screenshot of a computer program

Description automatically generated

Screenshot of the commands used to query the data with composite key and their outputs

A screen shot of a computer

Description automatically generated

A screen shot of a computer

Description automatically generated

A computer screen with text on it

Description automatically generated

Screenshot of the commands used for data generation and their outputs

HBase data manipulation

1. Update First Names: For students with IDs from 2 to 50, change the first name prefix from Student to Scholar. For instance, Student3 should become Scholar3.

Code:

***(2..50).each do |i|***

***first\_name = "Scholar#{i}"***

***put 'students', "#{i}", 'details:firstName', first\_name***

***end***

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A screen shot of a computer screen

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2. Add a Middle Name: For students with IDs from 51 to 75, add a middle name column under the details column family. The middle name should follow the pattern MidName#{i}.

Code:

***(51..75).each do |i|***

***middle\_name = "MidName#{i}"***

***put 'students', "#{i}", 'details:middleName', middle\_name***

***end***

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3. Modify Last Names: For students with IDs from 76 to 100, append \_Modified to the last name. So, LastName76 should be updated to LastName76\_Modified.

Code:

***(76..100).each do |i|***

***put 'students', "#{i}", 'details:lastName', "LastName#{i}\_Modified"***

***end***

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4. Bulk Delete: Delete all the details for students with IDs from 90 to 100.

Code:

***(90..100).each do |i|***

***deleteall 'students', "#{i}"***

***end***

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5. Data Retrieval: After all modifications, retrieve and display the details for students with IDs 40, 60, 80, and 90 to verify changes.

Code:

***[40, 60, 80, 90].each do |id|***

***get 'students', "#{id}"***

***end***

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