**Part 1: Ingesting Data into the HDFS**

1. Provide a screenshot to show that you unzipped the testprogram.zip file.

A screenshot of a computer

Description automatically generated

1. Provide a screenshot to show that you copied the testprogram folder into the home *directory* of the Hadoop namenode.

A screen shot of a computer

Description automatically generated

1. Provide a screenshot to show that you successfully copied the SalesData.csv file into the inputMapReduce folder.

A screenshot of a computer

Description automatically generated

1. Provide a screenshot to show that the file has been copied using the HDFS cat command.

A screen shot of a computer

Description automatically generated

**Part 2: Performing MapReduce — Aggregation Sales by Country**

1. Provide a description of the three Java files listed below that are used to apply the MapReduce framework on the Hadoop database:
   * SalesCountryDriver.java – Creates, configures, and runs a job object. The configuration includes the names of the job object and its Mapper and Reducer classes, setting the data type of its input and output, and setting the input and output directory for the job object.
   * SalesMapper.java – Splits a comma-delimited input and reports the data for a single country in an Output object.
   * SalesCountryReducer.java – Takes the output from the Mapper and counts how many times a country’s name appears.
2. Provide a screenshot to show that you have successfully defined the environment variables in the namenode CLI.

A screenshot of a computer

Description automatically generated

1. Provide a screenshot to show that you successfully compiled the Java files in the SalesCountry folder.

A screenshot of a computer

Description automatically generated

1. Provide a screenshot to show that you successfully created a jar file from the compiled Java code.

A screenshot of a computer program

Description automatically generated

1. Provide a screenshot to show that you successfully ran the MapReduce operation to distribute the analysis of the data.

A screenshot of a computer

Description automatically generated

1. Provide a screenshot to show that you successfully visualized the content of the part-00000 file inside the mapreduce\_output\_sales folder.

A screenshot of a computer

Description automatically generated