Bard Experiment

Sources

1. saturncloud.io/blog/mapreduce-to-solve-...

Complete code

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Here is a complete Python code for matrix-vector multiplication using MapReduce:

Python

```
import sys
from operator import add

def mapper(key, value):
  # Split the input line into the key-value pair.
  key, value = key.split()

  # Convert the key and value to numerics.
  key = int(key)
  value = float(value)

  # Emit intermediate key-value pairs.
  for j in range(len(value)):
    yield (key, j, value[j])

def reducer(key, values):
  # Sum the values for the given key.
  sum_values = sum(values)

  # Emit the final output.
  yield (key, sum_values)

if __name__ == '__main__':
  # Get the input and output directories.
  input_dir = sys.argv[1]
  output_dir = sys.argv[2]

  # Submit the MapReduce job.
  hadoop jar hadoop-streaming-*.jar -file mapper.py -mapper mapper.py -file reducer.py -reducer redu
```

Use code with caution. Learn more

To use this code, you would first need to save it as a Python file, e.g. `matrix_vector_multiplication.py` . Then, you could submit the MapReduce job using the following command:

hadoop jar hadoop-streaming-*.jar -file matrix_vector_multiplication.py -mapper matrix_vector_multiplication.py -file matrix_vector_multiplication.py -reducer matrix_vector_multiplication.py -input input_dir -output output_dir

This would create an output directory `output_dir` containing the output of the matrix-vector multiplication.

Talk to Bard in English or Marathi