Title: Map reduce operation with suitable example using MongoDB.

Problem : Write an eg. of Map reduce Statement using MongoDB.

Objective:

- To understand concept of map-reduce as data processing paradigm for condensing large volumes of data into useful aggregated results.

Requirements:

MongoDB, PC

Theory :

- Map Reduce : Map reduce is a powerful and flexible tool for aggregating data.

- It can solve problems that are too complex to express using the aggregation frameworks query language.

- It uses js as its query language.

- It is fairly slow and should not be used for real time analysis.

- Map reduce can be easily parallelized across multiple sources.

Map phase:
Map an operation onto every document in a collection. That operation can be either "do nothing" or "emit these keys with x values".

Intermidiate & stage:
Keys are grouped and lists of emitted values are created for each key.

Reduce phase:
Takes this list of values and reduces it to a single element.
This element is returned to the shuffle step until each key has a list containing a single value: result.

Conclusion:
We have successfully understood & implemented map reduce operations.