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Roll No! - 05

Sub! - DBMSL

Practical No 12

Title :- Implement map reducers operations with suitable example.

-objective : -

① To Develop Skill to handle NOSQL Database.
② To learn understand and execute process of software application Development.

Hardware : - intel is ubuntu operating system.

Software : - mongoDB Atlas

Theory :-

* mongoDB map reduce : - In mongoDB, map-red is a dataprocessing model that helps to perform operations on large data sets and prodce aggregated results mongoDB provides the map-reduce function to perform the map-redvce operational This has two main function i.e. The map function and reduce function This map function is used to group all the data based an the key value and the reduce function is used to perform operations on the mapped data The data is independently mapped and reduced in diffrent spaces and then combined together in the Function and the result will one the specified new collection.

The mapreduce() function generally operated on large data sets only using map reduce you can perform agreegation operation such as max, avg on the data using same key and it is similar groupBy in It performs on data independenly and parallel.

Syntax : —

```
db.collectionName.mapReduce (map, Reduce, { out: " collectionName"}
                                                    );
```

~~db. collectionName. mapReduce (map, Reduce, {~~

```
db. CollectionName . mapReduce(
            - - - . map(),
            - - - - Reduce();
            - - - query()
            - - - output()
      );
```

Here

* map() :- It uses emit() function in which it takes two parameters key and value key Here the key is on which we make groups like group by ages names and the second parameters is on which aggregation is performed like avg(), sum() is calculated on.

* query :- Here we will pass the query to filter the result set.

* output :- In this, we will specify the collection name where the result will be stored.

Conclusion :- Hence we studied about the map - reduce function in mongoDB.