Name: Shubha Rajendra Chemate

Roll Number: 31118

Subject: DBSL – Assignment 3 of group B – Map-reduce operations in mongoDB

Code:

db.clubs.insertMany([

    {

        name: "FC Bayern Munich",

        nation: "Germany",

        league: "Bundesliga",

        goals: {

            scored: 37,

            conceded: 7,

        },

    },

    {

        name: "Manchester United",

        nation: "England",

        league: "Premier League",

        goals: {

            scored: 24,

            conceded: 17,

        },

    },

    {

        name: "Manchester City",

        nation: "England",

        league: "Premier League",

        goals: {

            scored: 34,

            conceded: 10,

        },

    },

    {

        name: "Liverpool",

        nation: "England",

        league: "Premier League",

        goals: {

            scored: 34,

            conceded: 15,

        },

    },

    {

        name: "Atletico Madrid",

        nation: "Spain",

        league: "LaLiga",

        goals: {

            scored: 30,

            conceded: 12,

        },

    },

    {

        name: "Real Madrid",

        nation: "Spain",

        league: "LaLiga",

        goals: {

            scored: 29,

            conceded: 11,

        },

    },

    {

        name: "Borrusia Dortmund",

        nation: "Germany",

        league: "Bundesliga",

        goals: {

            scored: 25,

            conceded: 18,

        },

    },

    {

        name: "FC Barcelona",

        nation: "Spain",

        league: "LaLiga",

        goals: {

            scored: 26,

            conceded: 20,

        },

    },

    {

        name: "Chelsea",

        nation: "England",

        league: "Premier League",

        goals: {

            scored: 33,

            conceded: 21,

        },

    },

    {

        name: "Juventus",

        nation: "Italy",

        league: "SerieA",

        goals: {

            scored: 26,

            conceded: 22,

        },

    },

]);

db.clubs.find().pretty();

db.clubs.find({}, { \_id: 0 });

// average goals of the teams playing in different league

db.clubs.mapReduce(

    function () {

        emit(this.league, this.goals.scored);

    },

    function (key, values) {

        return Array.avg(values);

    },

    {

        out: "avg\_goals",

    }

);

db.avg\_goals.find().pretty();

// avergae goals of the teams playing in the league LaLiga

db.clubs.mapReduce(

    function () {

        emit(this.league, this.goals.scored);

    },

    function (key, values) {

        return Array.avg(values);

    },

    {

        query: { league: "LaLiga" },

        out: "avg\_goals\_laliga",

    }

);

db.avg\_goals\_laliga.find().pretty();

Outputs:



