**ASSIGNMENT NO:11**

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**Collection “city “ which contains the documents given as below(Perform on Mongo Terminal)**

**{ city:”pune”,**

**type:”urban”,**

**state:”MH”,**

**population:”5600000”**

**}**

**-using mapreduce, find statewise population.**

**-using mapreduce, find citywise population.**

**-using mapreduce, find typewise population.**

ASS11> use ASS11

already on db ASS11

ASS11> db.createCollection("city")

{ ok: 1 }

ASS11> db.city.insertMany([ {city:"mumbai", type:"urban", state:"MH", population:"5600000" }, {city:"mumbai", type:"urban", state:"MH", population:"560000" }, {city:"chamorshi", type:"rural", state:"MH", population:"10000" }, {city:"Rampur", type:"rural", state:"MH", population:"500" }, {city:"nagpur", type:"urban", state:"MH", population:"260000" }, {city:"Chennai", type:"urban", state:"TN", population:"1000000" }, {city:"vellore", type:"urban", state:"TN", population:"760000" }, {city:"Melur", type:"rural", state:"TN", population:"5000" }, {city:"Thiruvaiyaru", type:"rural", state:"TN", population:"5600" }])

{

acknowledged: true,

insertedIds: {

'0': ObjectId("65396b9763b3990f4e8db955"),

'1': ObjectId("65396b9763b3990f4e8db956"),

'2': ObjectId("65396b9763b3990f4e8db957"),

'3': ObjectId("65396b9763b3990f4e8db958"),

'4': ObjectId("65396b9763b3990f4e8db959"),

'5': ObjectId("65396b9763b3990f4e8db95a"),

'6': ObjectId("65396b9763b3990f4e8db95b"),

'7': ObjectId("65396b9763b3990f4e8db95c"),

'8': ObjectId("65396b9763b3990f4e8db95d")

}

}

ASS11> db.runCommand({

... mapReduce: "city",

... map: function() {

... emit(this.state, parseInt(this.population));

... },

... reduce: function(key, values) {

... return Array.sum(values);

... },

... out: "statewise\_population"

... })

{ result: 'statewise\_population', ok: 1 }

ASS11> db.statewise\_population.find()

[ { \_id: 'MH', value: 12861000 }, { \_id: 'TN', value: 3541200 } ]

ASS11> db.runCommand({

... mapReduce: "city",

... map: function() {

... emit(this.city, parseInt(this.population));

... },

... reduce: function(key, values) {

... return Array.sum(values);

... },

... out: "citywise\_population"

... })

{ result: 'citywise\_population', ok: 1 }

ASS11> db.citywise\_population.find()

[

{ \_id: 'vellore', value: 1520000 },

{ \_id: 'Melur', value: 10000 },

{ \_id: 'Rampur', value: 1000 },

{ \_id: 'mumbai', value: 12320000 },

{ \_id: 'Chennai', value: 2000000 },

{ \_id: 'Thiruvaiyaru', value: 11200 },

{ \_id: 'chamorshi', value: 20000 },

{ \_id: 'nagpur', value: 520000 }

]

ASS11> db.runCommand({

... mapReduce: "city",

... map: function() {

... emit(this.type, parseInt(this.population));

... },

... reduce: function(key, values) {

... return Array.sum(values);

... },

... out: "typewise\_population"})

{ result: 'typewise\_population', ok: 1 }

ASS11> db.typewise\_population.find()

[ { \_id: 'rural', value: 42200 }, { \_id: 'urban', value: 16360000 } ]

ASS11>