Chit 8 –

use college

db.createCollection("students")

db.students.insert([

... {

... "rno": "1",

... "name": "Omkar",

... "subject": "Geometry",

... "class": "A",

... "fees": 50000,

... "marks": 90

... },

... {

... "rno": "2",

... "name": "Rahul",

... "subject": "Science",

... "class": "A",

... "fees": 60000,

... "marks": 80

... },

... {

... "rno": "3",

... "name": "Yash",

... "subject": "Algebra",

... "class": "A",

... "fees": 30000,

... "marks": 85

... },

... {

... "rno": "4",

... "name": "Ved",

... "subject": "History",

... "class": "A",

... "fees": 40000,

... "marks": 93

... },

... {

... "rno": "5",

... "name": "Shree",

... "subject": "Geography",

... "class": "A",

... "fees": 35000,

... "marks": 79

... },

... {

... "rno": "1",

... "name": "Yajur",

... "subject": "Geometry",

... "class": "B",

... "fees": 45000,

... "marks": 90

... },

... {

... "rno": "2",

... "name": "Ganraj",

... "subject": "Science",

... "class": "B",

... "fees": 55000,

... "marks": 87

... },

... {

... "rno": "3",

... "name": "Pratham",

... "subject": "Algebra",

... "class": "B",

... "fees": 63000,

... "marks": 97

... },

... {

... "rno": "4",

... "name": "Shreyash",

... "subject": "History",

... "class": "B",

... "fees": 30000,

... "marks": 88

... },

... {

... "rno": "5",

... "name": "Raj",

... "subject": "Geography",

... "class": "B",

... "fees": 42000,

... "marks": 85

... }

... ])

QUERIES

• Class wise total number of students

var map = function() {emit(this.class, this.\_id)}

var reduce = function(key, values) {return values.length}

db.students.mapReduce(map, reduce, {out: 'classwise\_total'})

db.classwise\_total.find().pretty()

• Class wise total fees

var map = function() {emit(this.class, this.fees)}

var reduce = function(key, values) {return Array.sum(values)}

db.students.mapReduce(map, reduce, {out: 'classwise\_fees'})

db.classwise\_fees.find().pretty()

• Subject wise total marks

var map = function() {emit(this.subject, this.marks)}

var reduce = function(key, values) {return Array.sum(values)}

db.students.mapReduce(map, reduce, {out: 'subjectwise\_marks'})

db.subjectwise\_marks.find().pretty()

• Subject wise total students

var map = function() {emit(this.subject, this.\_id)}

var reduce = function(key, values) {return values.length}

db.students.mapReduce(map, reduce, {out: 'subjectwise\_total'})

db.subjectwise\_total.find().pretty()