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> use collage
switched to db collage
> show dbs;
admin            0.000GB
config           0.000GB
local            0.000GB
myDatabase       0.000GB
product_detail   0.000GB
> db.createCollection("student")
{ "ok" : 1 }
> show collections
student
> db.Student.insertMany([
...   { roll: 1, name: "vd", course: "DBMS", marks: 85 },
...   { roll: 2, name: "abc", course: "CNS", marks: 75 },
...   { roll: 3, name: "xyz", course: "Physics", marks: 90 },
...   { roll: 4, name: "pqr", course: "Physics", marks: 70 },
...   { roll: 5, name: "adt", course: "Chemistry", marks: 88 }
... ]);
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("68e38364e0f98585036414c1"),
    ObjectId("68e38364e0f98585036414c2"),
    ObjectId("68e38364e0f98585036414c3"),
    ObjectId("68e38364e0f98585036414c4"),
    ObjectId("68e38364e0f98585036414c5")
  ]
}

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> db.Student.find().pretty();
{
  "_id" : ObjectId("68e38364e0f98585036414c1"),
  "roll" : 1,
  "name" : "vd",
  "course" : "DBMS",
  "marks" : 85
}
{
  "_id" : ObjectId("68e38364e0f98585036414c2"),
  "roll" : 2,
  "name" : "abc",
  "course" : "CNS",
  "marks" : 75
}
{
  "_id" : ObjectId("68e38364e0f98585036414c3"),
  "roll" : 3,
  "name" : "xyz",
  "course" : "Physics",
  "marks" : 90
}
{
  "_id" : ObjectId("68e38364e0f98585036414c4"),
  "roll" : 4,
  "name" : "pqr",
  "course" : "Physics",
  "marks" : 70
}
{
  "_id" : ObjectId("68e38364e0f98585036414c5"),
  "roll" : 5,
  "name" : "adt",
  "course" : "Chemistry",
  "marks" : 88
}

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```

> db.Student.mapReduce(
...   function() {
...     emit(this.course, { totalMarks: this.marks, count: 1 });
...   },
...   function(key, values) {
...     var result = { totalMarks: 0, count: 0 };
...     values.forEach(function(value) {
...       result.totalMarks += value.totalMarks;
...       result.count += value.count;
...     });
...     result.averageMarks = result.totalMarks / result.count;
...     return result;
...   },
...   {
...     out: "average_marks_by_course"
...   }
... );
{ "result" : "average_marks_by_course", "ok" : 1 }

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> db.average_marks_by_course.find().pretty();

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{
  "_id" : "CNS",
  "value" : {
    "totalMarks" : 75,
    "count" : 1,
    "averageMarks" : 75
  }
}
{
  "_id" : "DBMS",
  "value" : {
    "totalMarks" : 85,
    "count" : 1,
    "averageMarks" : 85
  }
}
{
  "_id" : "Chemistry",
  "value" : {
    "totalMarks" : 88,
    "count" : 1,
    "averageMarks" : 88
  }
}
{
  "_id" : "Physics",
  "value" : {
    "totalMarks" : 160,
    "count" : 2,
    "averageMarks" : 80
  }
}
> _

```