Practical-11

Current Mongosh Log ID: 68ffcd2c20201519fdcebea3
Connecting to:
mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=
mongosh+2.5.8
Using MongoDB: 8.2.1
Using Mongosh: 2.5.8

For mongosh info see: https://www.mongodb.com/docs/mongodb-shell/

  The server generated these startup warnings when booting
  2025-10-23T11:59:30.250+05:30: Access control is not enabled for the database. Read and write
access to data and configuration is unrestricted

```
test> show dbs
admin      40.00 KiB
collegeDB   88.00 KiB
config     108.00 KiB
local      72.00 KiB
seed       76.00 KiB
student    40.00 KiB
test> use collegeDB;
switched to db collegeDB
collegeDB> db.students.deleteMany({})
{ acknowledged: true, deletedCount: 6 }
collegeDB> db.results.insertMany([
... { name: "Aniket Kamble", subject: "Math", marks: 85 },
... { name: "Aniket Kamble", subject: "Science", marks: 90 },
... { name: "Riya Patel", subject: "Math", marks: 95 },
... { name: "Riya Patel", subject: "Science", marks: 88 },
... { name: "Amit Sharma", subject: "Math", marks: 70 },
... { name: "Amit Sharma", subject: "Science", marks: 75 }
... ]);
...
{
 acknowledged: true,
 insertedIds: {
  '0': ObjectId('68ffce1020201519fdcebea4'),
  '1': ObjectId('68ffce1020201519fdcebea5'),
  '2': ObjectId('68ffce1020201519fdcebea6'),
  '3': ObjectId('68ffce1020201519fdcebea7'),
  '4': ObjectId('68ffce1020201519fdcebea8'),
  '5': ObjectId('68ffce1020201519fdcebea9')
 }
}
```

```
collegeDB> var mapFunction = function() {
...   emit(this.name, this.marks);
... };
...

collegeDB> var reduceFunction = function(key, values) {
...   return Array.sum(values) / values.length;
... };
...

collegeDB> db.results.mapReduce(
...   mapFunction,
...   reduceFunction,
...   { out: "avg_marks_per_student" }
... );
...
DeprecationWarning: Collection.mapReduce() is deprecated. Use an aggregation instead.
See https://mongodb.com/docs/manual/core/map-reduce for details.
{ result: 'avg_marks_per_student', ok: 1 }
collegeDB> db.avg_marks_per_student.find();
[
  { _id: 'Amit Sharma', value: 72.5 },
  { _id: 'Aniket Kamble', value: 87.5 },
  { _id: 'Riya Patel', value: 91.5 }
]
collegeDB>
```