Create Database SITS using MongoDB Create following Collections

Teachers(Tname,dno,dname,experience,salary,date\_of\_joining )

Students(Sname,roll\_no,class)

1. Display the department wise average salary

2. Display the no. Of employees working in each department

3. Display the department wise total salary of departments having total salary greater than or equals to 50000/-

4. Write the queries using the different operators like max, min. Etc.

5. Create unique index on any field for above given collections

6. Create compound index on any fields for above given collections

7. Show all the indexes created in the database SITS.

8. Delete index.ANS :=

Insert data  
use SITS; db.Teachers.insertMany([{ Tname: "John", dno: 1, dname: "Computer", experience: 5, salary: 40000, date\_of\_joining: new Date("2018-01-15") }, { Tname: "Mary", dno: 1, dname: "Computer", experience: 10, salary: 55000, date\_of\_joining: new Date("2015-03-25") }, { Tname: "David", dno: 2, dname: "Mechanical", experience: 7, salary: 35000, date\_of\_joining: new Date("2019-06-10") }, { Tname: "Sara", dno: 2, dname: "Mechanical", experience: 3, salary: 25000, date\_of\_joining: new Date("2020-11-20") }]); db.Students.insertMany([{ Sname: "Amit", roll\_no: 1, class: "TE" }, { Sname: "Riya", roll\_no: 2, class: "BE" }, { Sname: "Ankit", roll\_no: 3, class: "SE" }]);

1

db.Teachers.aggregate([{ $group: { \_id: "$dname", avgSalary: { $avg: "$salary" } } }])

2

db.Teachers.aggregate([{ $group: { \_id: "$dname", employeeCount: { $sum: 1 } } }])

3

db.Teachers.aggregate([{ $group: { \_id: "$dname", totalSalary: { $sum: "$salary" } } }, { $match: { totalSalary: { $gte: 50000 } } }])

4

db.Teachers.aggregate([{ $group: { \_id: "$dname", maxSalary: { $max: "$salary" }, minSalary: { $min: "$salary" } } }])

5

db.Teachers.createIndex({ Tname: 1 }, { unique: true })

6

db.Teachers.createIndex({ dno: 1, salary: 1 })

7

db.Students.insertOne({ studentID: 1, name: "Jane Smith", age: 20 });

8

db.Teachers.getIndexes(); db.Students.getIndexes();

9

db.Teachers.dropIndex("Tname\_1")