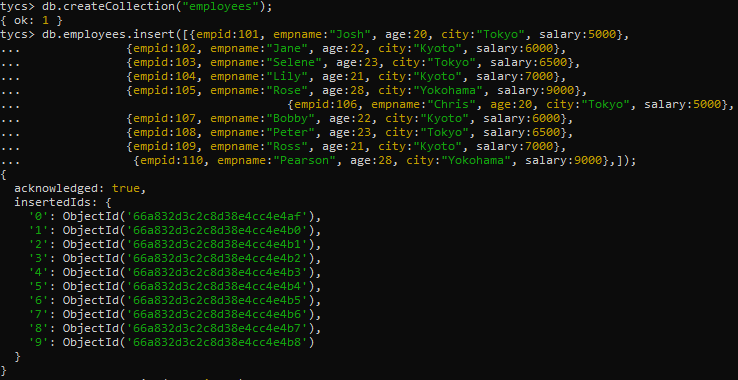
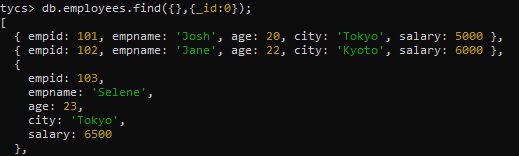
**Practical No : 05**

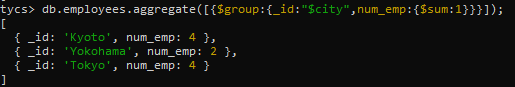
**Aim :** **Aggregate functions:** **MongoDB advanced queries using aggregation**

**Q1) Insert employee (id, name, age, city, salary) collection with 10 records in the database and display all the records.**



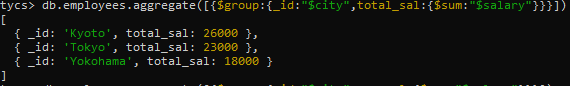


1. Group by function to get count.

db.Employee.aggregate([{$group:{\_id:"$city",num\_emp:{$sum:1}}}])

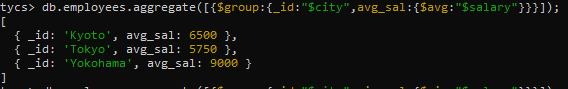
2. Sum function.

db.Employee.aggregate([{$group:{\_id:"$city",total\_sal:{$sum:"$sal"}}}])



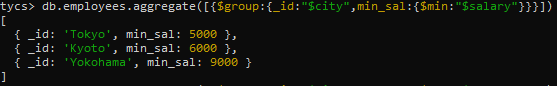
3. Avg function.

db.Employee.aggregate([{$group:{\_id:"$city",avg\_sal:{$avg:"$sal"}}}])



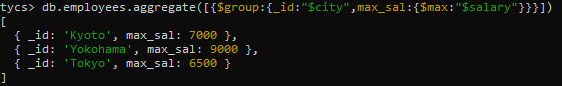
4. Min function

db.Employee.aggregate([{$group:{\_id:"$city",min\_sal:{$min:"$sal"}}}])



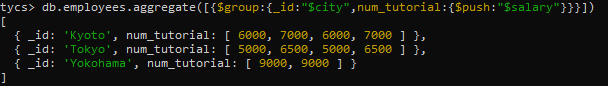
5. Max function.

db.Employee.aggregate([{$group:{\_id:"$city",max\_sal:{$max:"$sal"}}}])



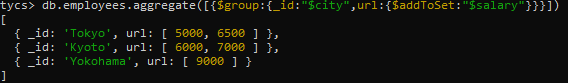
6. Push function

db.Employee.aggregate([{$group:{\_id:"$city",num\_tutorial:{$push:"$sal"}}}])

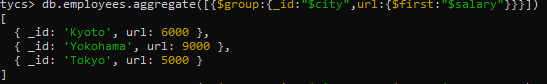


7. addToSet function

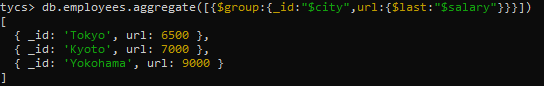
db.Employee.aggregate([{$group:{\_id:"$city",url:{$addToSet:"$sal"}}}])

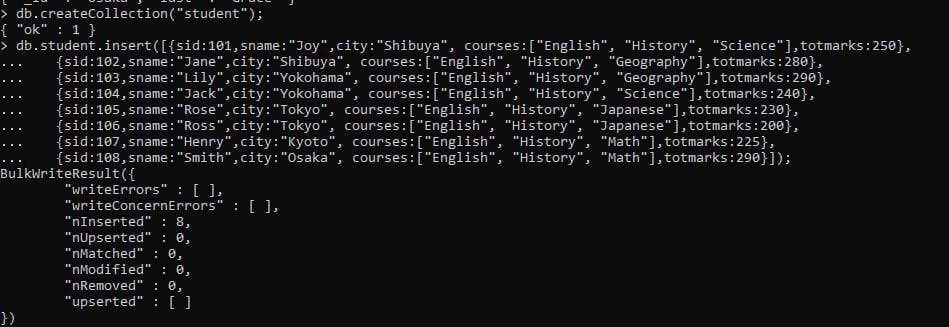


8. First function

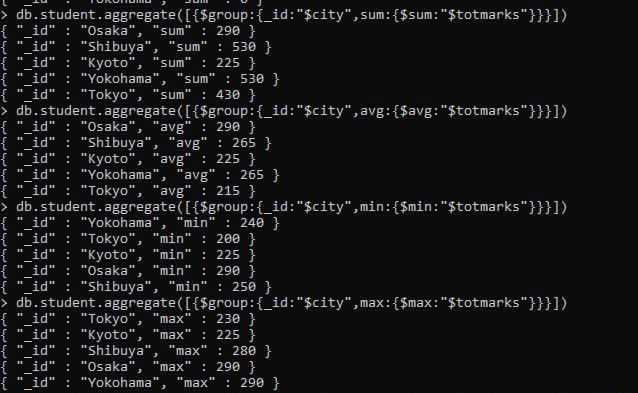


9. Last function

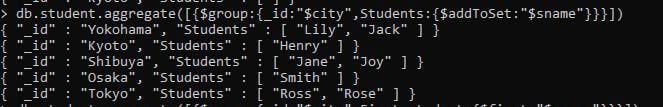


**Q 2) Create a Collection Student with the following Fields (s\_id,sname,age,city,courses,marks) where courses is an array perform the Following Queries based on the collection.**

1.Write a MongoDB query to use sum, avg, min and max expression.



2.Write a MongoDB query to use push and addToSet expression.



3.Write a MongoDB query to use first and last expression.

