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**Assignment-9**

**TITLE: MongoDB CRUD Operations**

**1.Create Database PCCOE**

**> use PCCOE**

switched to db PCCOE

**2. Create following Collections**

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

**Students(Sname,roll\_no,class)**

**> db.createCollection("Teachers");**

{ "ok" : 1 }

> **db.Teachers.insert({Tname:"Madhura",dno:"1",dname:"Comp",experience:"5yrs",salary:"50000",date\_of\_joining:"12-Aug-2014"})**

> db.Teachers.insert({Tname:"Atul",dno:"2",dname:"IT",experience:"8yrs",salary:"65000",date\_of\_joining:"14-Sept-2012"})

> db.Teachers.insert({Tname:"Smita",dno:"3",dname:"EnTc",experience:"4yrs",salary:"45000",date\_of\_joining:"15-Oct-2016"})

> db.Teachers.insert({Tname:"Ganesh",dno:"1",dname:"Comp",experience:"10yrs",salary:"70000",date\_of\_joining:"04-Feb-2011"})

> db.Teachers.insert({Tname:"Sonal",dno:"2",dname:"IT",experience:"4yrs",salary:"40000",date\_of\_joining:"07-July-2015"})

> **db.createCollection("Students");**

{ "ok" : 1 }

> **db.Students.insert({Sname:"Shivani",roll\_no:"101",class:"TE"});**

> db.Students.insert({Sname:"Piyush",roll\_no:"202",class:"TE"});

> db.Students.insert({Sname:"Snehal",roll\_no:"304",class:"TE"});

> db.Students.insert({Sname:"Prerana",roll\_no:"105",class:"TE"});

> db.Students.insert({Sname:"Devesh",roll\_no:"206",class:"TE"});

> db.Students.insert({Sname:"Sapna",roll\_no:"108",class:"TE"});

**3. Find the information about all teachers**

> **db.Teachers.find()**

{ "\_id" : ObjectId("5d8cdd62c39c4bc4eb45261b"), "Tname" : "Madhura", "dno" : "1", "dname" : "Comp", "experience" : "5yrs", "salary" : "50000", "date\_of\_joining" : "12-Aug-2014" }

{ "\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"), "Tname" : "Atul", "dno" : "2", "dname" : "IT", "experience" : "8yrs", "salary" : "65000", "date\_of\_joining" : "14-Sept-2012" }

{ "\_id" : ObjectId("5d8cde11c39c4bc4eb45261d"), "Tname" : "Smita", "dno" : "3", "dname" : "EnTc", "experience" : "4yrs", "salary" : "45000", "date\_of\_joining" : "15-Oct-2016" }

{ "\_id" : ObjectId("5d8ce0ffc39c4bc4eb45261e"), "Tname" : "Ganesh", "dno" : "1", "dname" : "Comp", "experience" : "10yrs", "salary" : "70000", "date\_of\_joining" : "04-Feb-2011" }

{ "\_id" : ObjectId("5d8ce132c39c4bc4eb45261f"), "Tname" : "Sonal", "dno" : "2", "dname" : "IT", "experience" : "4yrs", "salary" : "40000", "date\_of\_joining" : "07-July-2015" }

**4. Find the information about all teachers of computer department**

**> db.Teachers.find({dname:"Comp"});**

{ "\_id" : ObjectId("5d8cdd62c39c4bc4eb45261b"), "Tname" : "Madhura", "dno" : "1", "dname" : "Comp", "experience" : "5yrs", "salary" : "50000", "date\_of\_joining" : "12-Aug-2014" }

{ "\_id" : ObjectId("5d8ce0ffc39c4bc4eb45261e"), "Tname" : "Ganesh", "dno" : "1", "dname" : "Comp", "experience" : "10yrs", "salary" : "70000", "date\_of\_joining" : "04-Feb-2011" }

**5. Find the information about all teachers of computer,IT,and e&TC department**

**> db.Teachers.find({$or:[{dname:"Comp"},{dname:"IT"},{dname:"EnTc"}]});**

{ "\_id" : ObjectId("5d8cdd62c39c4bc4eb45261b"), "Tname" : "Madhura", "dno" : "1", "dname" : "Comp", "experience" : "5yrs", "salary" : "50000", "date\_of\_joining" : "12-Aug-2014" }

{ "\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"), "Tname" : "Atul", "dno" : "2", "dname" : "IT", "experience" : "8yrs", "salary" : "65000", "date\_of\_joining" : "14-Sept-2012" }

{ "\_id" : ObjectId("5d8cde11c39c4bc4eb45261d"), "Tname" : "Smita", "dno" : "3", "dname" : "EnTc", "experience" : "4yrs", "salary" : "45000", "date\_of\_joining" : "15-Oct-2016" }

{ "\_id" : ObjectId("5d8ce0ffc39c4bc4eb45261e"), "Tname" : "Ganesh", "dno" : "1", "dname" : "Comp", "experience" : "10yrs", "salary" : "70000", "date\_of\_joining" : "04-Feb-2011" }

{ "\_id" : ObjectId("5d8ce132c39c4bc4eb45261f"), "Tname" : "Sonal", "dno" : "2", "dname" : "IT", "experience" : "4yrs", "salary" : "40000", "date\_of\_joining" : "07-July-2015" }

**6. Find the information about all teachers of computer,IT,and E&TC department having salary greate r than or equal to 10000/-**

**> db.Teachers.find({dname:{$in:['Comp','IT','EnTc']},salary:{$gt:"50000"}});**

{ "\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"), "Tname" : "Atul", "dno" : "2", "dname" : "IT", "experience" : "8yrs", "salary" : "65000", "date\_of\_joining" : "14-Sept-2012" }

{ "\_id" : ObjectId("5d8ce0ffc39c4bc4eb45261e"), "Tname" : "Ganesh", "dno" : "1", "dname" : "Comp", "experience" : "10yrs", "salary" : "70000", "date\_of\_joining" : "04-Feb-2011" }

**7. Find the student information having roll\_no = 2 or Sname=xyz**

**> db.Students.find({$or:[{roll\_no:"202"},{Sname:"Piyush"}]});**

{ "\_id" : ObjectId("5d8ce1a5c39c4bc4eb452621"), "Sname" : "Piyush", "roll\_no" : "202", "class" : "TE" }

**8. Update the experience of teacher-praveen to 10years, if the entry is not available in database consider the entry as new entry.**

**> db.Teachers.update({Tname:"Atul"},{$set:{experience:"10yrs"}},{multi:true});**

**> db.Teachers.find({Tname:"Atul"});**

{ "Tname" : "Atul", "\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"), "date\_of\_joining" : "14-Sept-2012", "dname" : "IT", "dno" : "2", "experience" : "10yrs", "salary" : "65000" }

**9. Update the deparment of all the teachers working in IT deprtment to COMP**

**> db.Teachers.update({dname:"IT"},{$set:{dname:"Comp"}},{multi:true});**

**> db.Teachers.find().pretty();**

{

"\_id" : ObjectId("5d8cdd62c39c4bc4eb45261b"),

"Tname" : "Madhura",

"dno" : "1",

"dname" : "Comp",

"experience" : "5yrs",

"salary" : "50000",

"date\_of\_joining" : "12-Aug-2014"

}

{

"Tname" : "Atul",

"\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"),

"date\_of\_joining" : "14-Sept-2012",

"dname" : "Comp",

"dno" : "2",

"experience" : "10yrs",

"salary" : "65000"

}

{

"\_id" : ObjectId("5d8cde11c39c4bc4eb45261d"),

"Tname" : "Smita",

"dno" : "3",

"dname" : "EnTc",

"experience" : "4yrs",

"salary" : "45000",

"date\_of\_joining" : "15-Oct-2016"

}

{

"\_id" : ObjectId("5d8ce0ffc39c4bc4eb45261e"),

"Tname" : "Ganesh",

"dno" : "1",

"dname" : "Comp",

"experience" : "10yrs",

"salary" : "70000",

"date\_of\_joining" : "04-Feb-2011"

}

{

"Tname" : "Sonal",

"\_id" : ObjectId("5d8ce132c39c4bc4eb45261f"),

"date\_of\_joining" : "07-July-2015",

"dname" : "Comp",

"dno" : "2",

"experience" : "4yrs",

"salary" : "40000"

}

**10. find the teachers name and their experience from teachers collection**

**> db.Teachers.find({},{Tname:1,experience:1}).pretty();**

{

"\_id" : ObjectId("5d8cdd62c39c4bc4eb45261b"),

"Tname" : "Madhura",

"experience" : "5yrs"

}

{

"Tname" : "Atul",

"\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"),

"experience" : "10yrs"

}

{

"\_id" : ObjectId("5d8cde11c39c4bc4eb45261d"),

"Tname" : "Smita",

"experience" : "4yrs"

}

{

"\_id" : ObjectId("5d8ce0ffc39c4bc4eb45261e"),

"Tname" : "Ganesh",

"experience" : "10yrs"

}

{

"Tname" : "Sonal",

"\_id" : ObjectId("5d8ce132c39c4bc4eb45261f"),

"experience" : "4yrs"

}

**11. Using Save() method insert one entry in department collection**

**>db.Teachers.save({Tname:"Anuradha",dno:"2",dname:"IT",experience:"2yrs",salary:"30000",date\_of\_joining:"14-Aug-2017"});**

**> db.Teachers.find().pretty();**

{

"\_id" : ObjectId("5d8cdd62c39c4bc4eb45261b"),

"Tname" : "Madhura",

"dno" : "1",

"dname" : "Comp",

"experience" : "5yrs",

"salary" : "50000",

"date\_of\_joining" : "12-Aug-2014"

}

{

"Tname" : "Atul",

"\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"),

"date\_of\_joining" : "14-Sept-2012",

"dname" : "Comp",

"dno" : "2",

"experience" : "10yrs",

"salary" : "65000"

}

{

"\_id" : ObjectId("5d8cde11c39c4bc4eb45261d"),

"Tname" : "Smita",

"dno" : "3",

"dname" : "EnTc",

"experience" : "4yrs",

"salary" : "45000",

"date\_of\_joining" : "15-Oct-2016"

}

{

"\_id" : ObjectId("5d8ce0ffc39c4bc4eb45261e"),

"Tname" : "Ganesh",

"dno" : "1",

"dname" : "Comp",

"experience" : "10yrs",

"salary" : "70000",

"date\_of\_joining" : "04-Feb-2011"

}

{

"Tname" : "Sonal",

"\_id" : ObjectId("5d8ce132c39c4bc4eb45261f"),

"date\_of\_joining" : "07-July-2015",

"dname" : "Comp",

"dno" : "2",

"experience" : "4yrs",

"salary" : "40000"

}

{

"\_id" : ObjectId("5d8cebf1f659588495c3226a"),

"Tname" : "Anuradha",

"dno" : "2",

"dname" : "IT",

"experience" : "2yrs",

"salary" : "30000",

"date\_of\_joining" : "14-Aug-2017"

}

**> db.Teachers.save({\_id:"5d8cdd99c39c4bc4eb45261c",Tname:"Atul",dname:"IT"});**

**> db.Teachers.find({Tname:"Atul"}).pretty();**

{

"Tname" : "Atul",

"\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"),

"date\_of\_joining" : "14-Sept-2012",

"dname" : "IT",

"dno" : "2",

"experience" : "10yrs",

"salary" : "65000"

}

**14. display with pretty() method, the first 3 doccuments in teachers collection in ascending order**

**> db.Teachers.find().limit(3).sort({Tname:1}).pretty();**

{

"\_id" : ObjectId("5d8cebf1f659588495c3226a"),

"Tname" : "Anuradha",

"dno" : "2",

"dname" : "IT",

"experience" : "2yrs",

"salary" : "30000",

"date\_of\_joining" : "14-Aug-2017"

}

{

"Tname" : "Atul",

"\_id" : ObjectId("5d8cdd99c39c4bc4eb45261c"),

"date\_of\_joining" : "14-Sept-2012",

"dname" : "Comp",

"dno" : "2",

"experience" : "10yrs",

"salary" : "65000"

}

{

"\_id" : ObjectId("5d8ce0ffc39c4bc4eb45261e"),

"Tname" : "Ganesh",

"dno" : "1",

"dname" : "Comp",

"experience" : "10yrs",

"salary" : "70000",

"date\_of\_joining" : "04-Feb-2011"

}