Lab_10 :

Part – B :

→ db.createCollection(“Student_data)

→ db.Student_data.insertMany([

{ ROLLNO: 101, SNAME: "Vina", DEPARTMENT: "CE", FEES: 15000, SEM: 3, GENDER: "Female", CITY: "Rajkot" },

{ ROLLNO: 102, SNAME: "Krisha", DEPARTMENT: "EC", FEES: 8000, SEM: 5, GENDER: "Female", CITY: "Ahmedabad" },

{ ROLLNO: 103, SNAME: "Priti", DEPARTMENT: "Civil", FEES: 12000, SEM: 7, GENDER: "Female", CITY: "Baroda" },

{ ROLLNO: 104, SNAME: "Mitul", DEPARTMENT: "CE", FEES: 15000, SEM: 3, GENDER: "Male", CITY: "Rajkot" },

{ ROLLNO: 105, SNAME: "Keshav", DEPARTMENT: "CE", FEES: 15000, SEM: 3, GENDER: "Male", CITY: "Jamnagar" },

{ ROLLNO: 106, SNAME: "Zarna", DEPARTMENT: "Civil", FEES: 12000, SEM: 5, GENDER: "Female", CITY: "Ahmedabad" },

{ ROLLNO: 107, SNAME: "Nima", DEPARTMENT: "EE", FEES: 9000, SEM: 5, GENDER: "Female", CITY: "Rajkot" },

{ ROLLNO: 108, SNAME: "Dhruv", DEPARTMENT: "Mechanical", FEES: 10000, SEM: 5, GENDER: "Male", CITY: "Rajkot" },

{ ROLLNO: 109, SNAME: "Krish", DEPARTMENT: "Mechanical", FEES: 10000, SEM: 7, GENDER: "Male", CITY: "Baroda" },

{ ROLLNO: 110, SNAME: "Zeel", DEPARTMENT: "EE", FEES: 9000, SEM: 3, GENDER: "Female", CITY: "Jamnagar" }

])

1. Display Female students and belong to Rajkot city.

→ db.Student_data.find({ GENDER : "Female" , CITY : "Rajkot" })

2. Display students not studying in 3rd sem.

→ db.Student_data.find({ SEM : { $ne : 3 } })

3. Display students whose city is Jamnagar or Baroda. (use: IN)

→ db.Student_data.find({ CITY : { $in : ["Jamnagar" , "Baroda"] } })

4. Display first 2 students names who lives in Baroda.

→ db.Student_data.find({ CITY: "Baroda" }, { SNAME: 1 , _id : 0 }).limit(2)

5. Display Male students who studying in 3rd sem.

→ db.Student_data.find({ GENDER : "Male" , SEM : 3 })

6. Display sname and city and fees of those students whose roll no is less than 105.

→ db.Student_data.find({ ROLLNO : { $lt : 105 } } , { SNAME : 1 , CITY : 1 , FEES : 1 , _id : 0 })

7. Update City of all students from 'Jamnagar' City and Department as 'CE' to 'Surat'.

→ db.Student_data.updateMany({ CITY: "Jamnagar", DEPARTMENT: "CE" }, { $set: { CITY: "Surat" } })

→ db.Student_data.updateMany({ $and : [{CITY : "Jamnagar"} , { DEPARTMENT: "CE" }] } , { $set: { CITY: "Surat" } })

8. Increase Fees by 500 where the Gender is not 'Female'. (Use: Not)

→ db.Student_data.updateMany({ GENDER : { $ne : "Female" } } , { $inc : { FEES : 500 } })

9. Set the Department of all students from 'EE' and in Sem 3 to 'Electrical'.

→ db.Student_data.updateMany({ DEPARTMENT : "EE" , SEM : 3 },

{ $set : { DEPARTMENT : "Electrical" } })

10. Update the Fees of students in 'Rajkot' who are male.

→ db.Student_data.updateMany({ CITY : "Rajkot" , GENDER : "Male" } , { $set : { FEES : 18000 } })

11. Change City to 'Vadodara' for students in Sem 5 and with fees less than 10000.

→ db.Student_data.updateMany({ SEM : 5 , FEES : { $lt : 10000 } } , { $set : { CITY : "Vadodara" } })

12. Delete all students where the City is 'Ahmedabad' or GENDER is 'Male'.

→ db.Student_data.deleteMany({ $or : [{ CITY : "Ahmedabad" } , { GENDER : "Male" }] })

13. Delete students whose Rollno is not in the list [101, 105, 110].

→ db.Student_data.deleteMany({ ROLLNO : { $nin : [101 , 105 , 110] } })

14. Delete students from the 'Civil' department who are in Sem 5 or Sem 7.

→ db.Student_data.deleteMany({ DEPARTMENT : "Civil" , SEM : { $in : [5 , 7] } })

15. Delete all students who are not in the cities 'Rajkot', 'Baroda', or 'Jamnagar'.

→ db.Student_data.deleteMany({ CITY : { $nin : ["Rajkot" , "Baroda" , "Jamnagar"] } })

16. Delete students whose Rollno is between 105 and 108.

→ db.Student_data.deleteMany({ ROLLNO : { $gte : 105 , $lte : 108 } })

17. Rename the City field to LOCATION for all students.

→ db.Student_data.updateMany({} , { $rename : { CITY : "LOCATION" } })

18. Rename the Department field to Branch where the Fees is less than 10000.

→ db.Student_data.updateMany({ FEES : { $lt : 10000 } } , { $rename : { DEPARTMENT : "Branch" } })

19. Rename Sname to Fullname for students with Rollno in [106, 107, 108].

→ db.Student_data.updateMany({ ROLLNO : { $in : [106 , 107 , 108] } } ,
{ $rename : { SNAME : "Fullname" } })

20. Rename Fees to Tuition_Fees for all students with Fees greater than 9000.

→ db.Student_data.updateMany({ FEES : { $gt : 9000 } } , { $rename : { FEES : "Tuition_Fees" } })

21. Rename Department to Major where the Fees is less than 15000 and Gender is 'Female'.

→ db.Student_data.updateMany({ FEES : { $lt : 15000 } , GENDER : "Female" } ,
{ $rename : { DEPARTMENT : "Major" } })

22. Rename City to Hometown for all students whose SEM is 3 and Department is not 'Mechanical'.

→ db.Student_data.updateMany({ SEM : 3 , DEPARTMENT : { $ne : "Mechanical" } } ,
{ $rename : { CITY : "Hometown" } })