

MongoDB Queries Solution

1. Find the names and CGPAs of all students from the 'IT' department.

```
db.students.find({department:'IT'}, {name:1, cgpa:1, _id:0})
```

2. List all students whose CGPA is ≥ 8.5 . Show name, roll_no, and department.

```
db.students.find({cgpa:{$gte:8.5}}, {name:1, roll_no:1, department: 1, _id: 0 })
```

3. Find students who are in either 'ECE' or 'ME' department using \$in.

```
db.students.find({ department:{$in: ['ECE', 'ME']}})
```

4. Get name and CGPA of students in 4th year and CGPA > 8.0 .

```
db.students.find({ year: 4, cgpa:{$gt:8.0}}, { name: 1, cgpa:1, _id: 0})
```

5. Find students not in 'CSE' and CGPA ≤ 7.5 using \$and and \$ne.

```
db.students.find({ $and:[{department:{ $ne:'CSE'}},{ cgpa:{ $lte: 7.5 }  
}]})
```

6. Display top 3 students with highest CGPA.

```
db.students.find().sort({ cgpa: -1 }).limit(3)
```

7. Show next 3 students after skipping top 3 based on CGPA (pagination).

```
db.students.find().sort({ cgpa: -1 }).skip(3).limit(3)
```

8. Increase CGPA by 0.2 for all students in 'CSE' department.

```
db.students.updateMany({ department:'CSE'}, {$inc:{cgpa:0.2 }})
```

9. Set department to 'Probation' for students with CGPA < 7.0 .

```
db.students.updateMany({ cgpa:{ $lt:7.0}}, { $set:{department:'Probation'}})
```

10. Remove email field from students in 'ME' department.

```
db.students.updateMany({ department:'ME'}, { $unset:{email:''}})
```

11. Rename 'cgpa' to 'gpa' for all students.

```
db.students.updateMany({}, [{ $set:{gpa:'$cgpa'}}, {$unset:'cgpa'}])
```

12. Replace document of student with roll_no 'CSE2104'.

```
db.students.replaceOne(  
{ roll_no: 'CSE2104' }, { roll_no:'CSE2104', name: 'Simran Kaur', year: 2,  
department: 'CSE', cgpa: 9.5, email: 'simran.updated@univ.edu' }  
)
```