**ASSIGNMENT**

**Name:** Saransh Varshney

**University Roll Number:** 2315001986

**Assignment Number:** 1 (Mongo DB)

**Find / Query Operations**

1. db.students.find({ department: "IT" }, { name: 1, cgpa: 1, \_id: 0 });
2. db.students.find(

{ cgpa: { $gte: 8.5 } },

{ name: 1, roll\_no: 1, department: 1, \_id: 0 }

);

1. db.students.find(

{ department: { $in: ["ECE", "ME"] } }

);

1. db.students.find(

{ year: 4, cgpa: { $gt: 8.0 } },

{ name: 1, cgpa: 1, \_id: 0 }

);

1. db.students.find(

{

$and: [

{ department: { $ne: "CSE" } },

{ cgpa: { $lte: 7.5 } }

]

}

);

**Sort / Pagination**

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

**Update Operations**

1. db.students.updateMany(

{ department: "CSE" },

{ $inc: { cgpa: 0.2 } }

);

1. db.students.updateMany(

{ cgpa: { $lt: 7.0 } },

{ $set: { department: "Probation" } }

);

db.students.updateMany(

{ department: "ME" },

{ $unset: { email: "" } }

);

**Bonus (Advanced)**

db.students.updateMany(

{},

{ $rename: { "cgpa": "gpa" } }

);

db.students.replaceOne(

{ roll\_no: "CSE2104" },

{

roll\_no: "CSE2104",

name: "Simran Kaur",

year: 3,

department: "CSE",

cgpa: 9.4,

email: "simran.kaur@univ.edu"

}

);