Assignment-1 MongoDB Queries

Name – Ram Lal

Sec – B (61)

Roll No. -
2315001795

1.

```
assignment1> db.assignment1.find(
...    { department: "IT" },
...    { _id: 0, name: 1, cgpa: 1 }
... );
[
  { name: 'Aditya Patel', cgpa: 8.7 },
  { name: 'Vikas Nair', cgpa: 8.4 },
  { name: 'Karan Gupta', cgpa: 8.9 },
  { name: 'Dev Mishra', cgpa: 8.6 }
]
assignment1> |
```

2.

```
assignment1> db.assignment1.find(
...    { cgpa: { $gte: 8.5 } },
...    { _id: 0, name: 1, roll_no: 1, department: 1 }
... );
[
  { roll_no: 'CSE2101', name: 'Aarav Sharma', department: 'CSE' },
  { roll_no: 'CSE2104', name: 'Simran Kaur', department: 'CSE' },
  { roll_no: 'IT2105', name: 'Aditya Patel', department: 'IT' },
  { roll_no: 'CSE2201', name: 'Neha Jain', department: 'CSE' },
  { roll_no: 'CSE2301', name: 'Meera Joshi', department: 'CSE' },
  { roll_no: 'IT2304', name: 'Karan Gupta', department: 'IT' },
  { roll_no: 'IT2404', name: 'Dev Mishra', department: 'IT' },
  { roll_no: 'CSE2405', name: 'Tanya Roy', department: 'CSE' }
]
assignment1> |
```

3.

```
assignment1> db.assignment1.find(
...    { department: { $in: ["ECE", "ME"] } },
...    { _id: 0, roll_no: 1, name: 1 }
... );
[
  { roll_no: 'ECE2102', name: 'Priya Verma' },
  { roll_no: 'ME2103', name: 'Rahul Singh' },
  { roll_no: 'ECE2202', name: 'Rohan Mehta' },
  { roll_no: 'ME2203', name: 'Sneha Reddy' },
  { roll_no: 'ECE2302', name: 'Ankit Bansal' },
  { roll_no: 'ME2303', name: 'Pooja Yadav' },
  { roll_no: 'ECE2402', name: 'Aman Khan' },
  { roll_no: 'ME2403', name: 'Ishita Desai' },
  { roll_no: 'ECE2406', name: 'Nikhil Rao' },
  { roll_no: 'ME2407', name: 'Shreya Pandey' }
]
assignment1> |
```

4.

```
assignment1> db.assignment1.find(
...    { year: 4, cgpa: { $gt: 8.0 } },
...    { _id: 0, name: 1, cgpa: 1 }
... );
[
  { name: 'Meera Joshi', cgpa: 9.3 },
  { name: 'Ankit Bansal', cgpa: 8.1 },
  { name: 'Karan Gupta', cgpa: 8.9 }
]
assignment1> |
```

5.

```
assignment1> db.assignment1.find(
...    { $and: [{ department: { $ne: "CSE" } }, { cgpa: { $lte: 7.5 } }] }
... );
[
  {
    _id: ObjectId('684f01dcbfd1c07e6a50eb72'),
    roll_no: 'ME2303',
    name: 'Pooja Yadav',
    year: 4,
    department: 'ME',
    cgpa: 7.5,
    email: 'pooja.me@univ.edu'
  }
]
assignment1>
```

6.

```
assignment1> db.assignment1.find().sort({ cgpa: -1 }).limit(3);
[
  {
    _id: ObjectId('684f01dcbfd1c07e6a50eb70'),
    roll_no: 'CSE2301',
    name: 'Meera Joshi',
    year: 4,
    department: 'CSE',
    cgpa: 9.3,
    email: 'meera.cse@univ.edu'
  },
  {
    _id: ObjectId('684f01dcbfd1c07e6a50eb6c'),
    roll_no: 'CSE2201',
    name: 'Neha Jain',
    year: 3,
    department: 'CSE',
    cgpa: 9.1,
    email: 'neha.cse@univ.edu'
  },
  {
    _id: ObjectId('684f01dcbfd1c07e6a50eb6a'),
    roll_no: 'CSE2104',
    name: 'Simran Kaur',
    year: 2,
    department: 'CSE',
    cgpa: 9,
    email: 'simran.cse@univ.edu'
  }
]
assignment1>
```

7.

```
assignment1> db.assignment1.find().sort({ cgpa: -1 }).skip(3).limit(3);
[
  {
    _id: ObjectId('684f01dcbfd1c07e6a50eb73'),
    roll_no: 'IT2304',
    name: 'Karan Gupta',
    year: 4,
    department: 'IT',
    cgpa: 8.9,
    email: 'karan.it@univ.edu'
  },
  {
    _id: ObjectId('684f01dcbfd1c07e6a50eb78'),
    roll_no: 'CSE2405',
    name: 'Tanya Roy',
    year: 1,
    department: 'CSE',
    cgpa: 8.7,
    email: 'tanya.cse@univ.edu'
  },
  {
    _id: ObjectId('684f01dcbfd1c07e6a50eb6b'),
    roll_no: 'IT2105',
    name: 'Aditya Patel',
    year: 2,
    department: 'IT',
    cgpa: 8.7,
    email: 'aditya.it@univ.edu'
  }
]
assignment1>
```

8.

```
assignment1> db.assignment1.updateMany(
...    { department: "CSE" },
...    { $inc: { cgpa: 0.2 } }
... );
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 6,
  modifiedCount: 6,
  upsertedCount: 0
}
assignment1>
```

9.

```
assignment1> db.assignment1.updateMany(
...    { cgpa: { $lt: 7.0 } },
...    { $set: { department: "Probation" } }
... );
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
assignment1>
```

10.

```
assignment1> db.assignment1.updateMany(
...    { department: "ME" },
...    { $unset: { email: 1 } }
... );
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 5,
  modifiedCount: 5,
  upsertedCount: 0
}
assignment1>
```

11.

```
assignment1> db.assignment1.updateMany(
...    {},
...    { $rename: { "cgpa": "gpa" } }
... );
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 20,
  modifiedCount: 20,
  upsertedCount: 0
}
assignment1>
```

12.

```
assignment1> db.assignment1.replaceOne(
...    { roll_no: "CSE2104" },
...    {
...        roll_no: "CSE2104",
...        name: "Simran Kaur",
...        year: 2,
...        department: "CSE",
...        cgpa: 9.5,
...        email: "simrankaur.cse@univ.edu"
...    }
... );
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
assignment1>
```