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NoSQL

Assignment 3 Query Results

Finding Documents:

```
> db.students.find(
  { age: { $gt: 20 } },
  { _id: 0, name: 1, age: 1 }
)
< {
  name: 'Alice',
  age: 22
}
{
  name: 'Charlie',
  age: 24
}
{
  name: 'David',
  age: 21
}
{
  name: 'Eve',
  age: 23
}
```

```
> db.students.findOne(
  { city: "New York", state: "NY" }
)
< {
  _id: '1',
  name: 'Alice',
  age: 22,
  city: 'New York',
  state: 'NY',
  grade: 90,
  enrollment_year: 2021
}
```

```
> db.students.find(
  {},
  { _id: 0, name: 1, age: 1, grade: 1 }
)
< {
  name: 'Alice',
  age: 22,
  grade: 90
}
{
  name: 'Bob',
  age: 19,
  grade: 85
}
{
  name: 'Charlie',
  age: 24,
  grade: 70
}
{
  name: 'David',
  age: 21,
  grade: 88
}
{
  name: 'Eve',
  age: 23,
  grade: 95
}
```

```
> db.students.findOne(
  { _id: "3" }
)
< {
  _id: '3',
  name: 'Charlie',
  age: 24,
  city: 'Chicago',
  state: 'IL',
  grade: 70,
  enrollment_year: 2022
}
```

Sorting Documents:

```
> db.students.find().sort({ grade: -1 }).limit(5)
```

```
< {
  _id: '5',
  name: 'Eve',
  age: 23,
  city: 'Miami',
  state: 'FL',
  grade: 95,
  enrollment_year: 2022
}
{
  _id: '1',
  name: 'Alice',
  age: 22,
  city: 'New York',
  state: 'NY',
  grade: 90,
  enrollment_year: 2021
}
{
  _id: '4',
  name: 'David',
  age: 21,
  city: 'Austin',
  state: 'TX',
  grade: 88,
  enrollment_year: 2020
}
{
  _id: '2',
  name: 'Bob',
  age: 19,
  city: 'Los Angeles',
  state: 'CA',
  grade: 85,
  enrollment_year: 2019
}
{
```

```
  _id: '3',
  name: 'Charlie',
  age: 24,
  city: 'Chicago',
  state: 'IL',
  grade: 70,
  enrollment_year: 2022
}
```

Combining Find, Sort, and Limit:

```
> db.students.find(
  { enrollment_year: { $gt: 2020 } }
).sort({ enrollment_year: 1 }).limit(10)
< {
  _id: '1',
  name: 'Alice',
  age: 22,
  city: 'New York',
  state: 'NY',
  grade: 90,
  enrollment_year: 2021
}
{
  _id: '3',
  name: 'Charlie',
  age: 24,
  city: 'Chicago',
  state: 'IL',
  grade: 70,
  enrollment_year: 2022
}
{
  _id: '5',
  name: 'Eve',
  age: 23,
  city: 'Miami',
  state: 'FL',
  grade: 95,
  enrollment_year: 2022
}
```

```

> db.students.find(
  { enrollment_year: { $gt: 2020 } }
).sort({ enrollment_year: -1 }).limit(10)
< {
  _id: '3',
  name: 'Charlie',
  age: 24,
  city: 'Chicago',
  state: 'IL',
  grade: 70,
  enrollment_year: 2022
}
{
  _id: '5',
  name: 'Eve',
  age: 23,
  city: 'Miami',
  state: 'FL',
  grade: 95,
  enrollment_year: 2022
}
{
  _id: '1',
  name: 'Alice',
  age: 22,
  city: 'New York',
  state: 'NY',
  grade: 90,
  enrollment_year: 2021
}

```

```

> db.students.find(
  { grade: { $gt: 80 } }
).sort({ age: -1 }).limit(3)
< {
  _id: '5',
  name: 'Eve',
  age: 23,
  city: 'Miami',
  state: 'FL',
  grade: 95,
  enrollment_year: 2022
}
{
  _id: '1',
  name: 'Alice',
  age: 22,
  city: 'New York',
  state: 'NY',
  grade: 90,
  enrollment_year: 2021
}
{
  _id: '4',
  name: 'David',
  age: 21,
  city: 'Austin',
  state: 'TX',
  grade: 88,
  enrollment_year: 2020
}

```

