CLASS 4:PROJECTION, LIMIT & SELECTION

PROJECTION:

This is used when we don't need all columns/attributes.

```
db> db.students.deleteOne({ name:"Sam" })
{ acknowledged: true, deletedCount: 1 }
db> db.students.find({} , {name:1 , gpa:1 })
[
  {
    _id: ObjectId('66587b4a0a3749dfd07d78a0'),
    name: 'Student 948',
    gpa: 3.44
  },
  {
    _id: ObjectId('66587b4a0a3749dfd07d78a1'),
    name: 'Student 157',
    gpa: 2.27
  },
  {
    _id: ObjectId('66587b4a0a3749dfd07d78a2'),
    name: 'Student 316',
    gpa: 2.32
```

Here it only shows the name and gpa.Because the command is give as 'name:1' and 'gpa:1'.

Benefits of Projection:

- Reduced data transferred between the database and your application.
- Improves query performance by retrieving only necessary data.
- Simplifies you're your code by focusing on the specific information you neded.

LIMIT:

- The limit operator is used with the find method.
- It's chained after the filter criteria or any sorting operations.

Syntax:

db.collection.find({filter}, {projection}).limit(number)

```
db> db.students.find({} , {_id:0}).limit(5)
[
  {
    name: 'Student 948',
    age: 19,
    courses: "['English', 'Computer Science', 'Physics', 'Mathematics']",
    gpa: 3.44,
    home_city: 'City 2',
    blood_group: 'O+',
    is_hotel_resident: true
  },
  {
    name: 'Student 157',
    age: 20,
    courses: "['Physics', 'English']",
    gpa: 2.27,
    home_city: 'City 4',
    blood_group: 'O-',
    is_hotel_resident: true
  },
```

To get only first 5 document we use limit(5).

SELECTORS:

- Comparison gt and It
- AND operator
  - OR operato