Programs to practice in the Lab

Topics Covered: Mongo DB

Create a database sms and add the collection named students to it.

The collection students should contain the following fields with its documents.

Add atleast 15 documents with different set of information.

name:	Student's full name
age:	Age of the student
gender:	Gender of the student
branch:	Branch student belongs to
email:	Contact email
phone:	Contact Number
address:	Embedded document containing street, city, state, and zip code
courses:	List of enrolled courses
grades:	Key-value mapping of subjects and grades
attendance:	Total and attended classes
scholarship:	Boolean indicating if the student has a scholarship

Eg:

```
{
        "name": "Abc",
        "age": 35,
        "gender": "Male",
        "branch": "CSE",
        "email": "abc@gmail.com",
        "phone": "45454545",
        "address": {
                "street": "Malakpet",
                "city": "Hyderabad",
                "state": "Telangana",
                "zip": "500036"
        },
        "courses": ["Full Stack Development", "Web Technologies", "Java Programming"],
        "grades": {
                "Computer Science": "S",
                "Mathematics": "A+",
                "Physics": "A"
        },
        "attendance": {
                "total_classes": 50,
                "attended": 45
        }
        "scholarship": true
}
```

Question 1: Find all students in the collection.

Question 2: Find a student with the name "Abc".

Question 3: Find students who are 35 years old.

Question 4: Find students who are older than 30.

Question 5: Find students who are younger than 25.

Question 6: Find male students.

Question 7: Find students who belong to the "CSE" branch.

Question 8: Find students with an email containing "gmail.com"

Question 9: Find students who live in Hyderabad.

Question 10: Find students whose zip code is 500036.

Question 11: Find students enrolled in the "Java Programming" course.

Question 12: Find students taking both "Full Stack Development" and "Web Technologies" courses.

Question 13: Find students who have scored "S" in Computer Science.

Question 14: Find students who have an "AA+" grade in Mathematics.

Question 15: Find students who attended more than 40 classes.

Question 16: Find students who attended less than 50% of total classes.

Question 17: Find students who have a scholarship.

Question 18: Find students who do not have a scholarship.

Question 19: Find students who have more than two courses.

Question 20: Find students whose phone number starts with "454".

Question 21: Find students who are older than 30 and belong to the CSE branch.

Question 22: Find students who live in Hyderabad and have a scholarship.

Question 23: Find students enrolled in either "Java Programming" or "Web Technologies".

Question 24: Find students who have attended at least 90% of their total classes.

Question 25: Find students who have scored either "S" in Computer Science or "AA+" in Mathematics.

Question 26: Find students who have attended more than 40 classes but do not have a scholarship.

Question 27: Find students whose name starts with "A" and live in Telangana.

Question 28: Find students who are taking at least 3 courses.

Question 29: Find students whose phone number contains the sequence "454".

Question 30: Find students who live in Hyderabad but do not study "Java Programming".

Question 31: Find students who have scored at least "A" grade in all subjects.

Question 32: Find students with an email that ends with "@gmail.com" and have a scholarship.

Question 33: Find students who have attended more classes than the average attendance of all students.

Question 34: Find students who live in a city that contains "pet" in the name.

Question 35: Find students who are younger than 40, have a scholarship, and are studying at least 2 courses.

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