Activity – Solutions

1. Create a new DB college

```
use college
```

Explanation: Switches to (or creates) the college database.

---

2. Create collection faculty

```
db.createCollection("faculty")
```

Explanation: Creates a collection named faculty.

---

3. Insert at least 5 documents

```
db.faculty.insertMany([
  { name: "Dr. Sharma", subject: "Math", experience: 10, age: 45 },
  { name: "Prof. Mehta", subject: "Physics", experience: 7, age: 38 },
  { name: "Dr. Gupta", subject: "Math", experience: 5, age: 29 },
  { name: "Ms. Singh", subject: "Chemistry", experience: 3, age: 27 },
  { name: "Mr. Khan", subject: "English", experience: 8, age: 41 }
])
```

✅ **5 faculty added.**

---

4. Find all faculty teaching Math

```
db.faculty.find({ subject: "Math" })
```

Output:

```
[
  { name: "Dr. Sharma", subject: "Math", experience: 10, age: 45 },
  { name: "Dr. Gupta", subject: "Math", experience: 5, age: 29 }
```

```
]
```

---

5. Update one faculty's experience

```
db.faculty.updateOne(
  { name: "Dr. Gupta" },
  { $set: { experience: 6 } }
)
```

Explanation: Updated Dr. Gupta's experience from **5 → 6 years**.

---

6. Delete one faculty

```
db.faculty.deleteOne({ name: "Ms. Singh" })
```

Explanation: Deleted **Ms. Singh** from the collection.

---

7. Find faculty with age > 30

```
db.faculty.find({ age: { $gt: 30 } })
```

Output:

```
[
  { name: "Dr. Sharma", subject: "Math", experience: 10, age: 45 },
  { name: "Prof. Mehta", subject: "Physics", experience: 7, age: 38 },
  { name: "Mr. Khan", subject: "English", experience: 8, age: 41 }
]
```

✅ Done! This covers **all tasks with queries + expected results**.