M1

Problem Statement:

MongoDB: Employee collection with embedded Name, Company_name, Salary, Designation, Age, Expertise(array), DOB, Email, Contact, Address(array). Insert >=5 docs. Queries: Programmer with salary>30000; upsert Tester TCS Age25; increase Infosys salaries by 10000; reduce TCS salaries by 5000; Designation != Tester; exact array match for Expertise.

Code:

```javascript
// M1: Mongo shell commands (JavaScript)
use mydb;

db.employee.drop();

db.employee.insertMany([
  {
    Name: {FName:'Amit', LName:'Kumar'},
    Company_name: 'Infosys',
    Salary: 40000,
    Designation: 'Programmer',
    Age: 28,
    Expertise: ['Mongodb','Mysql','Cassandra'],
    DOB: '1997-03-10',
    Email: 'amit@example.com',
    Contact: '9876543210',
    Address: [{PAddr:'Pune', LAddr:'Kothrud'}]
  },
  {
    Name: {FName:'Riya', LName:'Shah'},
    Company_name: 'TCS',
    Salary: 32000,
    Designation: 'Programmer',
    Age: 26,
    Expertise: ['Mongodb','Redis'],
    DOB: '1999-01-12',
    Email: 'riya@example.com',
    Contact: '9876501234',
    Address: [{PAddr:'Mumbai', LAddr:'Andheri'}]
  },
  {
    Name: {FName:'Vikram', LName:'Singh'},
    Company_name: 'Infosys',
    Salary: 45000,
    Designation: 'Manager',
    Age: 35,
    Expertise: ['Leadership','Mysql'],
    DOB: '1990-06-05',
    Email: 'vikram@example.com',
    Contact: '9123456780',
    Address: [{PAddr:'Pune', LAddr:'Baner'}]
  },
  {
    Name: {FName:'Maya', LName:'Patel'},
    Company_name: 'TCS',
    Salary: 28000,
    Designation: 'Tester',
    Age: 25,
```

```
      Expertise: ['Selenium','JMeter'],
      DOB: '2000-02-20',
      Email: 'maya@example.com',
      Contact: '9000000000',
      Address: [{PAddr:'Bangalore', LAddr:'Whitefield'}]
  },
  {
      Name: {FName:'Arjun', LName:'Rao'},
      Company_name: 'Wipro',
      Salary: 35000,
      Designation: 'Developer',
      Age: 29,
      Expertise: ['Mongodb','Mysql','Cassandra'],
      DOB: '1996-08-15',
      Email: 'arjun@example.com',
      Contact: '9988776655',
      Address: [{PAddr:'Pune', LAddr:'Kothrud'}]
  }
]);

// 1. Programmer with salary > 30000
db.employee.find({Designation:'Programmer', Salary: {$gt:30000}}).pretty();

// 2. Upsert Tester at TCS age 25
db.employee.updateOne({Designation:'Tester', Company_name:'TCS', Age:25},
  {$setOnInsert:{Name:{FName:'New',LName:'Tester'}, Salary:30000}}, {upsert:true});

// 3. Increase salary for Infosys by 10000
db.employee.updateMany({Company_name:'Infosys'}, {$inc:{Salary:10000}});

// 4. Reduce salary for TCS employees by 5000
db.employee.updateMany({Company_name:'TCS'}, {$inc:{Salary:-5000}});

// 5. Designation != Tester
db.employee.find({Designation: {$ne:'Tester'}});

// 6. Exact array match for Expertise
db.employee.find({Expertise: ['Mongodb','Mysql','Cassandra']});
```