

## Q1. Creating and Dropping Database & Collection

sh

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```
# Creating a new database
```

```
use MyDatabase
```

```
# Creating a collection (implicitly by inserting a document)
```

```
db.createCollection("Customers")
```

```
# Dropping a collection
```

```
db.Customers.drop()
```

```
# Dropping the entire database
```

```
db.dropDatabase()
```

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## Q2. Insert a New Document into the "Customers" Collection

sh

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```
db.Customers.insertOne({  
    name: "John Doe",  
    email: "john.doe@example.com",  
    address: "123 Main St, New York, NY",  
    purchases: 500  
})
```

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## Q3. Retrieve and Display All Documents from the "Customers" Collection

sh

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```
db.Customers.find().pretty()
```

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## Q4. Update the Address of a Specific Customer

sh

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```
db.Customers.updateOne(  
  { name: "John Doe" },  
  { $set: { address: "456 Elm St, Los Angeles, CA" } }  
)
```

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#### **Q5. Query for Customers Who Have Made Purchases Over a Certain Amount**

sh

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```
db.Customers.find({ purchases: { $gt: 300 } }).pretty()
```

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#### **Q6. Remove a Customer from the "Customers" Collection**

sh

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```
db.Customers.deleteOne({ name: "John Doe" })
```

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#### **Q7. Create a New Database Named "SchoolDB"**

sh

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```
use SchoolDB
```

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#### **Q8. Insert Documents into the "Students" Collection**

sh

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```
db.Students.insertMany([  
  { name: "Alice", age: 14, grade: "9th" },  
  { name: "Bob", age: 16, grade: "11th" },  
  { name: "Charlie", age: 15, grade: "10th" }  
])
```

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### **Q9. Query for Students Older Than a Specific Age or Belonging to a Particular Grade**

sh

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```
db.Students.find({ $or: [{ age: { $gt: 15 } }, { grade: "9th" }]
}).pretty()
```

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### **Q10. Update the Grade of a Specific Student**

sh

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```
db.Students.updateOne(
  { name: "Alice" },
  { $set: { grade: "10th" } }
)
```

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### **Q11. Insert Documents into the "Teachers" Collection**

sh

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```
db.Teachers.insertMany([
  { name: "Mr. Smith", subject: "Mathematics", experience: 10 },
  { name: "Ms. Johnson", subject: "English", experience: 8 },
  { name: "Dr. Brown", subject: "Physics", experience: 12 }
])
```

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### **Q12. Query for Teachers Specializing in a Specific Subject or Having More Than a Certain Experience**

sh

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```
db.Teachers.find({ $or: [{ subject: "Physics" }, { experience: { $gt:
9 } }] }).pretty()
```

---

### **Q13. Update the Experience of a Specific Teacher**

```
sh
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db.Teachers.updateOne(
  { name: "Mr. Smith" },
  { $set: { experience: 12 } }
)
```

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## Additional Tasks

### Task 1: Create a New MongoDB Database Named "PWSKILLS"

```
sh
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use PWSKILLS
```

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### Task 2: Create a Collection Named "Employees" Within the "PWSKILLS" Database

```
sh
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db.createCollection("Employees")
```

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### Task 3: Insert Several Documents Representing Employees

```
sh
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db.Employees.insertMany([
  { name: "Alice Johnson", position: "Software Engineer", salary:
75000 },
  { name: "Bob Williams", position: "Product Manager", salary: 90000
},
  { name: "Charlie Brown", position: "UI/UX Designer", salary: 65000
}
])
```

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### Task 4: Retrieve and Display All Documents from the "Employees" Collection

```
sh
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```

```
db.Employees.find().pretty()
```

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#### **Task 5: Drop the "Employees" Collection**

sh

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```
db.Employees.drop()
```