

## **CRUD C# MONGODB**

- First : install MongoDB.Driver → using MongoDB.Driver
- Second :

### **Ở hàm Class:**

```
string connectionString = "mongodb://localhost:27017";  
var client = new MongoClient( connectionString );
```

### **// Connect to database and collection**

```
var database = client.GetDatabase("YourDatabaseName");
```

➔ Nó sẽ tự tạo 1 folder đặt tên trong MongoDB : YourDatabaseName

```
var studentCollection = database.GetCollection<Student>("Students");
```

➔ Lấy ra 1 collection có tên “**Students**” → nếu không có là nó sẽ tự tạo 1 Folder chứa nhiều thông tin

### **// create 5 students**

```
var students = new List<Student>  
{  
    new Student("Minh", "minhvip@gmail.com", "09333333")  
    {  
        Subjects = new List<string> { "Math", "Physics", "Chemistry" }  
    },  
    new Student("Tuan", "tuan@gmail.com", "0911444")  
    {  
        Subjects = new List<string> { "English", "History" }  
    },  
    new Student("Lan", "lan123@gmail.com", "0912121")  
    {  
        Subjects = new List<string> { "Biology", "Chemistry", "Math" }  
    },  
    new Student("Hoa", "hoa456@gmail.com", "0945454")  
    {  
        Subjects = new List<string> { "Physics", "Computer Science" }
```

```

    },
    new Student("Duc", "duc789@gmail.com", "0987878")
    {
        Subjects = new List<string> { "English", "Math", "Art" }
    }
};

```

**Console.WriteLine("----Added into MongoDB----");**

**// Thêm vào MongoDB**

//studentCollection.InsertMany(students); → **đã chạy rồi thì sau đó cmt lại, kẻo bị double data**

//Console.WriteLine("All Students added");

Console.WriteLine("-----Read data from Database-----");

**// Read data**

var allStudents = studentCollection.Find(student => true ).ToList();

Console.WriteLine("All Students: ");

foreach ( var student in allStudents ) {

    student.DisplayInfor();

}

Console.WriteLine("-----Search name in database-----");

**// Search Student by Name**

var studentName = "Duc";

var findStudent = studentCollection.Find( s => s.Name == studentName).FirstOrDefault();

if (findStudent != null)

{

    findStudent.DisplayInfor();

}

else {

    Console.WriteLine("This student not found");

}

### **// Update data**

```
Console.WriteLine("-----Update data in database-----");  
  
// Find student need to update  
  
var filterUpdateSubject = Builders<Student>.Filter.Eq( s => s.Name , "Tuan" );  
  
// Update any Subject // change 1 môn học luôn  
  
var updateSpecificSubject = Builders<Student>.Update.Set(s => s.Subjects[0], "Sleeping");  
studentCollection.UpdateOne( filterUpdateSubject, updateSpecificSubject);  
  
Console.WriteLine("Subject changed successfully ");
```

### **// Update Phone Number**

```
var filterUpdate = Builders<Student>.Filter.Eq(s => s.Name, "Minh");  
  
var updatePhone = Builders<Student>.Update.Set(s => s.PhoneNumber, "01111111");  
  
studentCollection.UpdateOne(filterUpdate, updatePhone);  
  
Console.WriteLine("Phone number updated for Minh");
```

### **// Delete data**

```
Console.WriteLine("-----Delete data in database-----");
```

### **// Delete theo Name**

```
var deleteFilter = Builders<Student>.Filter.Eq(s => s.Name, "nguyen");  
  
studentCollection.DeleteOne(deleteFilter);  
  
Console.WriteLine("Student Minh Deleted");
```