**Day 1 Lab Assignments**

**Use MongoDB to do the following assignments:**

1. Create database named: FacultySystemDB.
2. Create collection (student) that has:
   * FirstName: string
   * LastName: string
   * Age: Number
   * Faculty: An object that has Name and Address
   * Grades: An array of objects, each object has: CourseName, Grade, Pass (Boolean).
   * IsFired: Boolean
3. Insert 3 (at least) documents in Student collection with different values.
   * Try inserting one record each time
   * Try inserting collection
4. Retrieve the following data:
   * All Students.
   * Student with specific First Name.
   * Students who his First Name=Ahmed, or Last Name= Ahmed.
   * Students that their First name isn't "Ahmed".
   * Students with Age less than 21.
   * All fired students.
   * Students with Age more than or equal to 21, and their faculty isn't NULL.
   * Display student with specific First Name, and display his First Name, Last name, IsFired fields only.
5. Update the student with specific FirstName, and change his LastName.
   * Try Update() statement.
   * Try Update() with Mulit option.
   * Try Save().
6. Delete Fired students.
7. Delete all students collection.
8. Delete the whole DB.
9. Create new database named: FacultySystemV2.
   * Create student collection that has (FirstName, lastName, IsFired, FacultyID, array of objects, each object has CourseID, grade).
   * Create Faculty collection that has (Faculty Name, Address).
   * Create Course collection, which has (Course Name, Final Mark).
   * Insert some data in previous collections.

**Bonus:**

1. Install Redis database, and try to insert and select data from it.
2. Retrieve and insert to MongoDB using a C# Desktop / Web application.
3. Display each student along with his grades in course he studied from FacultySystemV2.
4. Add your own key to any collection.

**<Script>document.write(“Thank YOU”) </Script>**