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| **INF 354 Homework Assignment** | | | |
| **Assignment #:** | **6** | **DUE DATE:** | **18 March 2015 12:00PM (Noon)** |
| **Topic:** | No SQL databases: MongoDB | | |
| **Instructions:** | For this week’s homework you will be designing a simple a Windows Form Application that can insert data into a MongoDB document database and retrieve data from a MongoDB document database.  In order to aid you in completing this task we have found some DLL’s that can interact with a MongoDB document database. All you have to do is use the DLL’s we have found for you as appose to manually code everything for the database interaction (Isn’t that nice!). In order to use these DLL’s in your program you need to add the following references: MongoDB.Bson.dll and MongoDB.Driver.dll. These are located in the CSharpDriver-1.8.1 folder we have provided you guys.  Your MongoDB database should be called “354db”. You are going to make a **collection** called “clients”. Your Insert Form is going to create a new **document** and insert that document into the **clients** **collection**  Your Read Form is going to get data from the **clients collection** of the **354db** according to a certain input on the read form: In SQL this query would use a WHERE clause. [eg WHERE @param = id].  Whenever a document is inserted into the clients collection it should have the following fields: “client\_firstname”, “client\_surname”, “client\_cellphone\_number”, “client\_email”, “client\_age”, “client\_idNumber” and “client\_sex”.  **PLEASE NOTE YOU ARE USING VERSION 1.8.1 OF THE C# MongoDB Driver SOFTWARE!**  **THIS HOMEWORK ASSIGNMENT HAS TO RUN ON CAMPUS PC’S FOR IT TO BE MARKED!**  Now that you are ready to rock and roll create the following forms:  A form to insert data into the database with the following controls:  Your form should have a button and textboxes/labels pairs for each field that we require to be in the clients collection above. When the user clicks the insert button, a **document** should be inserted into the **clients collection**.  A form to select data form the database with the following controls:  Your form should have a button, label and a textbox. The textbox must receive a clients idNumber as input. When you click the button a MessageBox should appear showing all of that clients specific data. This data must be retrieved from the **clients** **collection**. | | |
| **Reference materials:** | [**http://docs.mongodb.org/ecosystem/drivers/csharp/**](http://docs.mongodb.org/ecosystem/drivers/csharp/)  [**http://api.mongodb.org/csharp/current/**](http://api.mongodb.org/csharp/current/)  [**http://docs.mongodb.org/manual/tutorial/getting-started/**](http://docs.mongodb.org/manual/tutorial/getting-started/) | | |

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| **Outcome** | **Mark** |
| **Insert data into document database** | **15** |
| **Retrieve data from document database** | **15** |