**Project #1 – (System Development)**

**Draft Requirements Specification**

“Big Boss Club” (BBC) needs a database. BBC is a martial arts school with hundreds of students. BBC has these requirements:

* There is only one instructor who teaches all classes
* Students are given a student number when they join the school. This is stored along with their name, date of birth, the date they joined the school, their mobile number, email, and address.
* The school wants to track also the students’ parents (Mother and/or Father). Assume that most students live with their parents. Not all students have parents (some students might be adults so there is no need to keep track of their parents). We need to store also parents’ mobile phone and email address. Parents may also be students.
* Students pay fees for membership, tests, purchasing products, etc. The system must be able to keep track of all money received from students. The system should be able to show this information for any given date, e.g. by month or within a range such as from Jan 1-Jan 20th.
* A class is offered for a specific level at a specific time, day of the week. For example, one class taught on Mondays at 5:00 pm is an intermediate-level class. Another class taught on Mondays at 6:00 pm is a beginner-level class. A third class taught on Tuesdays at 5:00 pm is an advanced-level class, and so on. There are different levels of classes. These provided here are only as an example.
* Students may attend any class at any level during each week so there is no expectation that any particular student will attend any particular class session. Therefore, the actual attendance of students at each individual class meeting must be tracked.
* Each student holds a rank in the martial arts. The belt color and the date the student awarded each rank needs to be kept in the database. A given rank may be held by many students. While it is customary to think of a student as having a single rank, it is necessary to track each student’s progress through the ranks. Therefore, every rank that a student attains is kept in the system. New students joining the school are automatically given a white belt rank (default). All ranks have at least one student that has achieved that rank at some time.

**Sample ranks (admin can enter any ranks in the Ranks table)**

1. White
2. Yellow
3. Half Green
4. Green
5. Half Blue
6. Blue
7. Half Red
8. Red
9. Half Black
10. Black

**Group Size**

Teams should be from 1-3 people.

**Deliverables**

You are asked to provide:

1. A *Technical Report* in Word or PDF format with the following information:

* the names and student numbers of your team members
* how to run the system
* provide usernames/passwords (if any)
* A dependency diagram in 3NF
* A complete Crow’s Foot ERD or a UML Class Diagram

1. A complete system using any programming language for the interface and/or any DBMS of your choice. This includes all system files including source code.

Examples include (not limited):

* + - Java & Oracle
    - ASP.NET & MSSQL
    - .NET & MSSQL
    - PHP & MySQL
    - MS Access

A team representative must upload on Blackboard the above in a ZIP format. In the ZIP file, there should be the **Readme** file containing the (1) from above and one folder containing the (2) from above. The ZIP file should be saved with the name of the team representative as *LastName\_FirstName*, e.g. **Smith\_John**

**Deadline**

March 13 (using Blackboard). ONLY a team representative should upload this file

**Assessment**

Functionality and Database Structure 10%

User Interface 5%

Tech. report 3%

Presentation 2%

**TOTAL 20%**

**Important Notes**

* Only a team representative will be uploading deliverables on Blackboard
* Follow the above instructions very carefully

*\*\*\* Points will be deducted for failing to follow the above instructions or for late submissions \*\*\**