**OOP2 Comp7013**

**Assignment Work Semester 2 :-**

Develop an application to manage a doctor’s surgery.

1. The doctor will have to be authenticated to gain access to the system.
2. The doctor will be presented with a list of their patients when they login.
3. The doctor will need to review a patient’s details, update patients details, add new patients.
   1. Patient details include, name, address, number, patient history (details of each visit/procedure/serious illness + dates) // See Class Diagram
   2. A database should be used to store the patient data
4. The doctor should be able to search for a patient under patient name or patient id
5. Backup and Restore : In the event of a disaster where the database is corrupted or destroyed the system will need to be restored from a backup. The doctor will need to be able to backup all system information to a file and restore from this file if necessary. The file should be labelled with the date of backup, the backup should be done weekly.

**Note** :-

In assessing project work :-

* One third of the marks will be given for well documented and robust code.
* One third of the marks will be given for minimum required functionality operating correctly
* One third of the marks will be given for good design and implementation

1. Design and develop the GUI for the system (as initially there is no functionality behind the GUI, simply pop up a message to say the function has been completed). (14%)
   1. Hard code the data where it is required
   2. Verify data is correct on input and give appropriate error messages if not.
2. Develop the classes required for the application –sample UML diagram provided (14%)
3. Fully implement the functionality of the system and persist the data to a mysql database. (12%)
4. Using serialisation, implement the backup and restore (10%)

* **There will be reviews of the work in week 4, week 7 and week 10.**
* **The final submission and review of all work will be done in week 11.**
* **Students should discuss with the lecturer any issues with their progress in the labs as appropriate.**
* **The competed assignment work should be submitted on Blackboard (unless otherwise instructed by your lecturer) by the 7th of April 2014.**
* **Marks will not be given for any project unless the completed work is demoed to and reviewed with the lecturer.**
* **Please ensure that you submit a zip file of the full project folder – marks will be deducted if you do not submit correctly and on time.**

Doctor

Patient

docId: integer

docName: String

surgeryId: integer

docPasswd: String

pList: ArrayList<Patient>

pId : Integer

pName: String

pAddress: String

pPhone: String

pDOB: Date

myHistory: ArrayList<History>

Doctor(String, Integer, String)

Getters and Setters etc

addPatient(Patient): boolean

updatePatient(Patient)

printReport(Date, Patient):

search(Patient, Date)

Patient(String,String,String,Date)

doctorsVisit()

Getters and Setters etc

Surgery

addDoctor()

updateDoctor()

saveSystem()://weekly

restoreSystem(): weekly

login()

surgeryId Integer

surgeryAdd String

docList: ArrayList<Doctor>

PatientHistory

historyId: Integer

patientId: Integer

doctorId: Integer

visitDate: Date

description: String

medicine: String

procedure: String

PatientHistory(integer,integer, String, String, String)

Getters and Setters etc