**Software Engineer - PHP Assignment**

**Preconditions**

1. You should work on your local machine.
2. You may use any IDE or editor for developing the application.
3. You may use the latest PHP5 version compatible with required libraries.
4. You may use Apache or IIS as the web server.
5. You may use MySQL as database.

Requirements

**Objective**

Create a pathology lab reporting system, which can be used to publish medical test result reports to patients.

Functional Specifications

Create a pathology lab reporting web application where medical test result reports can be published to the patients:

* Operator users should be able to log in to the system to perform following privileged tasks. Patients cannot access these pages.
  + Reports CRUD (Multiple tests and results in each report)
  + Patients CRUD (including pass code)
* Lab sends a text message to the patient with a pass code to log in (out of scope).
* Patient user could log in using his name (auto complete field) and pass code sent to him. And then can do the following:
  + Display list of his reports.
  + Display a report details as a page.
  + Export a report as PDF
  + Mail a report as PDF

**Technical Specifications**

The following list of technical specifications should be adhered to:

* Use MVC design
* Use MySQL database. Create the needed tables.
* Use a PDF export library.
* Use either of CodeIgniter, Zend, or YII as web development library.
* Use PHP Mailer as mailing library
* Apply input validations and constraints wherever necessary to create a stable application.
* Even if you are not able to complete all the tasks, try to achieve a working application.

**To be evaluated**

* The quality of the output (functionality)
* Code quality and completeness
* Technologies applied
* Extra validations and assumptions which are not described
* Add missing requirements to the implementation, according to your experience.

**Delivery / What to submit**

**Application Demo**

Record the demonstration of the web application using Wink. Do not upload the video. Save it to your localmachine.

**Database script**

Create a single SQL script file to create the database, its schema and any stored procedure you may use.

**Readme**

Create a txt file with the following information

* Steps to create and initialize the database.
* Steps to prepare the source code to build/run properly
* Any assumptions made and missing requirements that are not covered in the specifications
* Any feedback you may wish to give about improving the assignment.

**Design diagrams**

Create a doc file containing the following information and diagrams

* List of technologies and design patterns used.
* An overall activity diagram
* An overall component interaction diagram

Deliverable Structure

Delivery for this assignment should consist of an archive named - **Software Engineer -PHP.zip**containing the following

* Source code/project
* Wink recording, download version 2 from Wink, render the video to swf format
* Readme.txt containing the instructions to configure and run the application, notes and feedback
* Design.doc with needed diagrams

Structure of the resulting zip file should be of the following format

  {your\_name} - Software Engineer - PHP.zip

  {your\_name} - Software Engineer - PHP.zip \Readme.txt

  {your\_name} - Software Engineer - PHP.zip \Design.doc

  {your\_name} - Software Engineer - PHP.zip \Wink\ <<< this folder should contain the wink recording

  {your\_name} - Software Engineer - PHP.zip \Source\ <<< this folder should contain the complete sourcecode for the project(s)