Web Site Application Fall 2014

Assignment 3

This Assignment uses knowledge gained so far through the course. This assignment is worth 12% of your final grade. This assignment is due: **Thursday November 6th 2014 11:59pm Chicago Time**. It might take you several hours of work to complete. You will need to make sure you have access to a computer hosting a web server capable of running PHP and MySQL. I recommend you install WAMP or MAMP (or LAMP) on your personal machine. Any students enrolled in the 562 sections must complete the additional work described in the graduate extension section.

Introduction

You are going to build a web application that could be delivered to and customized by customers with little to no knowledge of the PHP programming language. This web application will be used by schools in developing nations to host educational material and courses, much like blackboard is used by IIT.

Objectives

- Explain the role of forms in web site applications
- Implement and describe basic security for form processing
- Outline the types of resources server applications can connect to and their advantages and disadvantages
- Describe the components and advantages of the Model View Controller architecture

Requirements

- Your application must use our basic application framework layout and utilize databases to provide a customizable application.
- Your application must be configurable to use a <u>specific database</u> on a <u>user supplied hostname</u>, with <u>user</u> and <u>password</u>.
    - o For maximum points, logins should use salted and hashed passwords
    - o Undergraduates should provide a **configuration.php** file to edit to change the database connection and salt values
        - Undergraduates should additionally provide a **database.sql** file that can be imported to create a database for the website
    - o Graduates should provide a **installation.php instead of database.sql** file that presents an installation form that sets up the database host, user and password – this should set up the database, tables and **configuration.php** file automatically
        - This installation file should create any requisite tables and data inside the chosen database
- Your application should have one user facing entry point – **index.php** that creates all views for all customer requirements – to do this it will need to use additional components
- Administrative users should be able to log in to the website admin section (**admin/index.php**), and after logging in:

- - Customize elements of the website by enabling and disabling different components
  - Customize the site name and subtitle – which should be reflected in the common layout across all pages
- The main page (index.php) should show a form to login and links to the LIST views of any enabled components

Components
- Each component should be controlled by two GET parameters in the url:
  option=**COMPONENT_NAME** and & view=**VIEW_NAME**
  - Option should enable the inclusion of the specific component layout files
  - View should dictate which functions of layout to execute
- The **COURSE** component should show at least two views:
  - A **LIST** of courses from the database showing their description and course number that shows links to a…
  - **DETAIL** view of a particular course showing its course number, description credit hours and a button to enroll (if the user is logged in)
  - (You may add an additional view to confirm enrolment)
- The **USER** component should have at least two external views:
  - A **LIST** view that shows all users name and email and a link to
  - A **ENROLMENT** view that shows all courses that the user has enrolled in by description and course number

Graduate Extension
- Your application should know how to set itself up. Instead of providing a SQL import script, your application should instead use that script to setup the database given a database host, name, user and password. On completion of the install the regular application should run correctly.

Grading Details
You will obtain maximum grades by:

- Making maximum use of variables and control structures to minimize the lines of repeated code needed to display the required elements.
- Producing an application the produces no visible errors under normal operation
- Completing requirements with elegant solutions
- Submitting on time

Submission Details
You must upload your submission, including source code inside a zip archive to blackboard by the due date. The submission must be in the following format. Failure to produce your assignment in exactly this format will result in a 5% reduction in assignment grade:

Assignment Submission Format:

YourLastName_FirstName_IdNumber_AS3.zip

-**src** (folder)
        -*ALL documents and folders as required*
        -*Import.sql/Installation.php (A database import script (undergrad) or installation page*
README.pdf (describes your submission including problems and additional attributions)

Late Policy

You will lost 10% of your assignment grade (1.2% of course grade) every 24hours that your submission is late, starting from 1minute after the deadline.

Extensions are given in rare circumstances due to serious illness or family issues and will <u>only be considered</u> **up to 48 hours before** the deadline and with proof of hardship.