CS545 Fall 2015
Project #3
Server-Side Programming and AJAX, MySQL

200 points

Due Date/Time:
Your project is due on Thursday, November 20th at 4:00 P.M. San Diego time. Your project must be published in your class account on jadran and function correctly to receive credit for the assignment.

The Project:
For this assignment, you will create the server-side portion. This part is PHP, AJAX and MySQL. You will write a PHP script to accept information from the form created in project 2, validate the data, and then store it in the MySQL database server, which is opatija.sdsu.edu. You will also add AJAX. Since AJAX involves both the client and the server, you will need to change your client-side code. Your project #3 will add the following features:

- **AJAX** to verify that the form to be submitted is not a duplicate.
- **A php script** that reads the parameters from the form and stores them in your MySQL database on opatija.sdsu.edu. We will discuss database design and a sample DB schema will be provided.
- You must also **upload and store the child's image** on the server. Do not store the actual image in the MySQL database, store only the name and use a folder on the server for the image file.
- **A report** that gives the roster of the registered participants, grouped by program. The report should contain the following information:

Child's first name, last name, nickname, gender
The child's image
Child's age at the time the report is generated
Parent's first name, last name, primary phone number
Emergency contact's name, phone number

- **A confirmation page**

These are the minimum specifications; you should feel free to make up any additional details or enhancements that you feel may be needed.

You will have the following:

1. Landing page (index.html) - html **part 1**
2. Enrollment Form - html **part 1**
3. Confirmation page - php **part 2**
4. Error page or message - php **part 2**
5. Roster Report - php **part 2**

The Roster Report should not be password protected, and should be accessable at the following URL:
`http://jadran.sdsu.edu/~jadrnxxx/proj3/report.php`

NOTE: It is an error to assume that data coming from a client computer must be valid because javascript code to validate is attached to the client-side code. You must validate the data on the server before committing it to the database.

The Database

You will need to store data from the input form on the server side. As is common in industry, you will use a database server, which is a separate machine, `opatija.sdsu.edu`. Thus, your html page will invoke a php script running on jadran, and that script will open a connection to the database server to store or retrieve information.

```
client <-----> webserver (jadran) <-----> database server
                                          (opatija)
```

We will cover details about connecting to and using the database server in class. You may find it helpful to refer to User Guide to jadran. Scroll down to the "MySQL Database" section.

Additional Details:

- Up to this point in the semester, you have been able to develop your code on a personal computer, and transfer files once finished to jadran. This will no longer be possible. PHP code won't run on your personal computer (unless you install a web server). See https://www.apachefriends.org/index.html for information about installing a local server. This is not recommended.
- As with the previous item, connection to the database server is only allowed from jadran. All other access is firewalled and blocked.
- Family relationships are often complicated these days. For simplicity, every child will have a single primary parent.
- All pages in your project should have a clean, professional appearance.
- You must use only PHP to add the server side code. Pages sent from PHP will not be explicitly validated, but should contain correct code.
- The above specifications are the minimum requirements. You may do more if you wish.

Project Submission:

This project is a continuation of Project #2. You will add the server-side code, and also add AJAX functionality to the client-side. For this assignment, you must place your project in a directory names **proj3** (which you must create) in your **public_html** directory in your assigned class account. The main page, or entry point, must be a file named

index.html. Your project must be published and visible in your assigned class account and accessible by the following URL pattern:

```
http://jadran.sdsu.edu/~jadrnxxx/proj3/
OR
http://jadran.sdsu.edu/~jadrnxxx/proj3/index.html
```

Your roster report will be accessible by the following URL:

```
http://jadran.sdsu.edu/~jadrnxxx/proj3/report.php
```

IMPORTANT: You will not turn in anything for project assignments (i.e. code printouts). Thus, so that I know that your project is complete and ready for grading, you must create an empty file in the same directory as your project entry point named `finished`. Create this file by using the unix command touch [filename]. Example:

```
jadrn000@jadran:~/public_html/proj3> touch finished
jadrn000@jadran:~/public_html/proj3>
jadrn000@jadran:~/public_html/proj3> ls -l

-rw-r--r-- 1 jadrn000 users 0 Nov 18 10:00 finished

jadrn000@jadran:~/public_html/proj3>
```

If you later discover that you need to do additional work on your project, make sure that you delete this file from your account. You may do this with the unix command rm [filename]. Example:

```
jadrn000@jadran:~/public_html/proj3> rm finished
jadrn000@jadran:~/public_html/proj3>
jadrn000@jadran:~/public_html/proj3> ls -l
total 0
jadrn000@jadran:~/public_html/proj3>
```

At any time after the due date, your instructor may grade the project if a `finished` file is found in your account. In that case, no resubmission or regrade will be permitted.

First, you should copy everything in proj2/ into proj3/ so that you can develop the third project without touching your project #2. Run the following commands on the server in your public_html directory:

```
mkdir proj3
cp -r proj2/*   proj3
```

Be sure the delete proj3/finished.

Grading:

Correct and appropriate use of AJAX, PHP and MySQL are the primary focus. It can be difficult to generate correctly formatted html code with a script. Pay attention to the output of your scripts to insure correctness. You must insure that your upload folder is not visible **EVER**. Server security is paramount, so this is a gradable issue.

Cheating:

Just a reminder here. Collaboration is not permitted for this course. You are expected to complete all project assignments on your own. You must write all xhtml, css, and php code on your own. You may not use any code generation tools (Dreamweaver, Frontpage etc). Collaboration with anyone, or use of code generation tools is considered cheating. If you adapt or copy code from the Internet, be sure to cite the source. This should be limited to specific techniques. Any student caught cheating on the projects or a midterm exam will receive an "F" in the course, and a report will be filed with the University.