**CS4753 Class Project – Milestone 3 (of 4)**

Due Date: Submit on collab by 11:55 pm on Monday, October 31, 2016

Weight: 10% of final course grade

(Note: Milestone 4 will be worth 11% of your final course grade and will be due November 30).

For the third milestone of the class project, we will be making various improvements to your previous work for the first two milestones. The major improvement will be the implementation of payment processing software using PayPal. This will require you to make an account at PayPal.com. Implementing ways to charge and retrieve funds from your customers is vital to any business. This implementation will help improve your skills in incorporating third party software and APIs to establish functionalities, rather than building them from scratch. Additionally, email capabilities to your project, so that a customer who signs up for your service will receive a confirmation email.

Grading Criteria

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| CRITERIA | POINTS |
| Alter the front end of the form that you created on your signup page to allow for the collection of credit card information (number, expiration date, and CVV number). This will involve adding new text boxes to your old form. It may be smart to divide the form into two groups with the use of headers or titles, such as ‘Personal Information’ and ‘Banking Information’. | 15 |
| Create a PayPal account using a real email (for verification), but you do not need to use a real phone number. Do NOT enter your real credit card information, as we will be using PayPal’s Sandbox to mock transactions. After verifying your account, create a Personal (buyer) virtual account for one of your users and a Business (merchant) virtual account for yourself at <https://developer.paypal.com/developer/accounts/>. Expanding each account reveals a “Profile” link, which shows all the information you need to implement the API. To link an application to your seller account, click on “My Apps & Credentials” under the “Dashboard” header and create a Sandbox REST API app (second option) using your seller account. Now, the seller account is linked to your application as the merchant. | 10 |
| Now that setup is complete, you must integrate the PayPal API to perform a checkout of at least one item. PayPal provides a demo on how to perform a checkout using the REST API in PHP at <https://demo.paypal.com>. At the very least, your application must ensure that a transaction occurs between your unique buyer and seller accounts such that it will appear on the seller’s account dashboard. Ensure that the payment was successful by checking the buyer’s account balance from the PayPal developer page, and checking if the transaction appears on <https://www.sandbox.paypal.com/al/webapps/mpp/merchant> (log in with your PayPal seller account). Note: You must demonstrate at least **two** transactions from different PayPal buyer accounts. | 40 |
| Improve your server code that is used to process a user and write to your database, to incorporate email functionality. This can be established using PHPMailer at <https://github.com/PHPMailer/PHPMailer>. Normally, less work is needed to establish email functionality, but the XAMPP servers that we are using don’t have the configurations necessary to use email with PHP the normal way. Once a user has been successfully added to your database and charged on PayPal, you should email them to let them know that they have successfully signed up for your service. Note: You should be sending an email to the account linked to your website user. | 25 |
| Make sure that your site is generally well polished, and that it looks and functions like a cohesive web application. Your three pages should all be well organized and look clean. | 10 |
| TOTAL | 100 |

**Class Policies:**

**Late Policy:** You will incur a 10-point late penalty for each day late that you submit your project. After 5 late days, no submissions will be accepted.

**Submission Policy**: You will be submitting a .zip file of your project code to Collab under the correct assignment page. Groups will be required to sign up for in-person demos for each assignment, in which they will display their current progress to the TAs. On your honor, you agree to demo the exact code you submitted on collab.

**Demo Policy:** If you miss your scheduled demo appointment (disregarding emergency situations and extreme circumstances) you will incur a 5-point penalty on your milestone grade.