Code Inspection Report

RoboNews.com

"Your Source For Robotics Coverage"

Client

William R. Martin

Team 3

Sven Rivera
Chad Auld
Gaurang Bhatt
Kyle Sprankle
Austin Duff

Start Date: 2/25/2013

RoboNews.com
Code Inspection Report

Table of Contents

1. Introduction

1.1 Purpose

The purpose of this document is to review and discuss our inspection of the code for our Robotics site. The intended readership is anyone interested in our coding processes. We will describe the process that we took to look over our code and the best and worst parts of our system. We specify the modules that have been inspected by name and description, and we state any defects that arise during our inspection.

1.2 References

1. System Design Document
2. Testing Report

1.3 Coding and Commenting Conventions

When coding, we attempted to go with the camel case naming conventions of variables, classes etc. The first letter of classes are always capitalized, and variables are lowercase. We did our best to follow the coding conventions of PHP, HTML, and SQL.

1.4 Defect Checklist

Defects can cause bugs and make code difficult to handle. They can be very simple or more complex. We used the categories "Coding Conventions," "Logic Error," "Security Oversights," and "Commenting." View the two tables below for explanations of the categories, and for a list of possible defects we could encounter. Refer to the testing report for information about tests.

Defect Categories

Categories	Explanation
Coding Conventions	When code is implemented or designed in a strange way. Makes it more difficult to maintain the code.
Logic Errors	When code doesn't do what we originally inten
Security Oversights	Points in code where the security of the program could become compromised. They could allow unwanted access from outside sources.
Commenting	Comments are missing, or there are too many, they are misleading

Possible Defects

Category	Defect
Commenting	Missing comments
Commenting	Too many comments
Commenting	Comments are misleading
Logic Error	Array Index out of bounds
Logic Error	Error in parentheses
Logic Error	Objects compared incorrectly
Coding Conventions	Improper variable naming
Coding Conventions	Improper method naming
Coding Conventions	Improper class naming
Security Oversights	Incorrect handling of password exception
Security Oversights	Vulnerability of variables or strings
Coding Conventions	Incorrect usage of object methods
Coding Conventions	Code duplication
Logic Error	Incorrect order or amount of parameters
Logic Error	Error in case sensitivity
Security Oversights	URL access restriction not working correctly

2. Code Inspection Process

2.1 Description

We did our best to inspect the code as we were writing it, as well as making sure that it was doing what was intended. We attempted to either meet with at least one other group member to inspect code together, or have group members review the code on Github. We will attempt to meet in pairs/groups more in the future.

Our code inspection process isn't the most ideal because it is very difficult for us to meet due to conflicting schedules. Most of the time when we meet it is in pairs or as the whole group. We will attempt to meet more as a group in the future but we have done well to keep in touch of our progress in coding through github or messaging. We will also attempt to make sure that we do not wait too long to review our code.

2.2 Impressions of the Process

Our process has been working pretty well, but it would work better if we attempted to do more group meetings. Plus we need to do better to communicate defects in code. We discussed that in the future we will attempt to keep each other informed about possible defects to handle in each of our files. This should make it easier to know what we do and don't need to do for the website.

The areas of code that are most likely to contain defects are the ones that we have not fully reviewed or finished yet. So for these reasons, the file submitPage.php is the most likely to contain defects. The least likely are regUserLogin.php and newUser.php because we have reviewed them the most and they do exactly what they are intended to do as of right now.

2.3 Inspection Meetings

As stated earlier, inspection meetings were mainly conducted in pairs or in the whole group. Any time that we didn't meet we reviewed the code separately on github. Refer to the table for meeting times and the members present.

Date	Time	Members present
2/20/2013	5:30pm - 7:00pm	All Members
2/21/2013	7:00pm - 9:00pm	Gaurang Bhatt, Sven Rivera
2/26/2013	4:00pm - 7:00pm	Chad Auld, Kyle Sprankle
2/27/2013	5:30pm - 7:00pm	All members
2/28/2013	6:00pm - 7:00pm	Kyle Sprankle, Gaurang Bhatt, Chad Auld

3. Modules Inspected

Our website is based on a mix of PHP, HTML, and SQL, with small inclusions of CSS and JavaScript. Refer to the Table for a list of our files and brief descriptions of each.

Code Description Table

#	File	Brief Description
1	index.php	Username/Password field form. Also contains link to regist a new account.
2	newUser.php	Processes and adds new user to a database.
3	regUserLogin.php	Processes the login info to check for existing user.
4	regPage.php	Main page used to display the articles.
5	adminPage.php	Like regPage.php, but will include the functionality to bloc users and edit article submissions.
6	submitPage.php	Form used for entering the new article. Processes the form well.
7	CommonMethods.php	Provides connection to the database with the specified username and password, as well as execute the queries.
8	frameTop.html	Template for the banner and contains the functioning "buttons".
9	frameBottom.html	closes the tags that are opened by frameTop.
10	menuscript.js	Handles creation of buttons and their submenus.
11	menustyle.css	Stylesheet to help modify the appearance of the website.

Refer to the Design Document for more explanation on many of these files and how they interact.

4. Defects

The table describes the defects found in the system.

Defect Table

Category of Error	Location	Comments	Handled
Correctness	submitPage.php	Does not verify URL access	Not yet
Commenting	submitPage.php index.php	Not enough comments	Not yet
Correctness	submitPage.php	Does not provide review yet	Not yet

Appendix A - Team Review Sign-off

Team
Name _____ Date _____
Print
Name _____ Date _____
Signature
Comments _____

_____
Name _____ Date _____
Print
Name _____ Date _____
Signature
Comments _____

_____
Name _____ Date _____
Print
Name _____ Date _____
Signature
Comments _____

_____
Name _____ Date _____
Print
Name _____ Date _____
Signature
Comments _____

_____
Name _____ Date _____
Print
Name _____ Date _____
Signature
Comments _____

_____

Appendix B - Document Contributions

This document was mainly done by Kyle Sprankle with review from the rest of the team.