CEN 4010 Principles of Software Engineering, Fall 2021

Covid Connections

*By Team Onux*

Project Team 8

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# Product Summary

#### Name of Product

Covid Connections

#### List of Committed Functions

1. Creating, posting, and replying on **Forums**
2. **Secure Account Creation** and **Sign In/Login**
3. **Covid Resources**
4. **Game**s
5. Posting and sharing of **Images** (may delete)
6. **Homepage** displaying the weather in your area, directory to all other functions, and personal account page (may delete)

#### 

#### Unique Features

Covid Connections is a new and exciting social media platform that allows residents of Florida to connect throughout the Covid-19 pandemic. The site features forums, games, and resources about Covid-19. Covid Connections also is the first of its kind to completely respect the member’s privacy, and not sell any data to third parties.

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#### URL

https://lamp.cse.fau.edu/~cen4010\_fa21\_g08/home/index.php

# Usability Test Plan

# QA Test Plan

# Code Review

# Best Practices for Security

The list of assets that will be protected by the system are the user password and the database layers.

The user password will be encrypted using RIPEMD hashing. RIPEMD hashing is a hash function that convert normal data to irregular values which will allow the password to be secured and encrypted. Before encrypting the password there will be a two salt phrases to further protect the password.

The database layer is also encrypted. The strings inputs will be sanitized in queries which will prevent SQL injection attacks. For input validation, the user password and the username will be checked against the database to see if it’s input correctly. Also, before any post or images are modified, the system will verify that the original user is still logged in. The search inputs will be sanitized through queries to see if the inputs were true.

# Non-Functional Requirements

**Compatibility Requirements:** Done

* + The website is compatible with all browsers.

1-Browser

* Done
  + The website is compatible with Chrome, Safari, and Firefox. All the requirements are met

2-Computer and OS

* Done
  + There are no particular OS that being used.

**Expected Load:** Done

The website will be run through the lamp server. There should be enough storage available through the server to run the website.

**Performance Requirements:** On Track

* Responsiveness: Done
  + The website was implemented using bootstraps. The overall theme is something that’s very sample.
* Test Requirement: On track
  + The test requirement is being implemented currently. As a team, we will be testing how the search correspond to certain inputs.
* Reliability: Done
* Bug Count: On track
  + So far there has not been any bugs reported. We run daily updates to make sure that there’s no bugs being implemented in the code.

**Availability Requirements:** Done

* The website is currently being run on the lamp server, If the lamp server is not available, the site will be unresponsive.

**Security Requirements:** On Track

* Login/Password: Done
  + The login was recently implemented. It is run through the database. The password is encrypted.
* The security requirements are being implemented. It’s being researched on if it would be possible to use google for the simple login phase of the process. It being tested on to see how it would operate with a user that visit the website.

**Compatibility Requirements:**

1. *Browsers:* The site will be created using bootstrap to ease compatibility between desktop and mobile based browsers. The initial scope of the site covers compatibility with Chrome and Firefox, which should also provide compatibility with other major browsers. No alternative site functionality will be considered if the browser does not have JavaScript installed.
2. *Computer and OS:* The site is being built with no particular operating system in mind. If the OS can run any popular browser, it will run the site.

**Expected Load:**

1. As the site should not be receiving large use traffic simultaneously, we will make all possible accommodations to tolerate multiple users at once. Scripts will be executed to simulate multiple simultaneous users/requests to the server.

**Storage Requirements:**

1. System will be stored on LAMP server. Backup options are not yet determined but may include cloud storage for image and database files.

**Availability Requirements:**

1. System will be stored on LAMP server. As such, it is subject only to LAMP server maintenance constraints.
2. In the event of LAMP downtime, website will be inaccessible.

**Performance Requirements:**

1. *Responsiveness:* The system will be coded using bootstrap which should help accommodate any screen size.
2. *Test Requirements:*  Testing will include all functional requirements as well as simulated multiuser load and response time.
3. *Reliability:* The system should be operational 100% of the time if LAMP is up and running. Failures should be addressed prior to deployment.
4. *Bug Count:* No more than 10 bugs during development at any time. No more than 5 bugs when system is deployed.

**Security Requirements:**

1. *Login/Password:* Users will be required to authenticate via username and password. Passwords will be salted and hashed on the database layer to protect user privacy and security as much as possible.
2. *Test Requirements:*  Testing will include all functional requirements as well as simulated multiuser load and response time.
3. *Reliability:* The system should be operational 100% of the time if LAMP is up and running. Failures should be addressed prior to deployment.
4. *Bug Count:* No more than 10 bugs during development at any time. No more than 5 bugs when system is deployed.