Tic-Tac-Toe: The Game

Final Project Presentation

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CPET 499 Web Systems

Project Summary

- This web application contains the classic Tic-Tac-Toe game that is full functional and can display statistics for the amount of games a user wins, loses, and ties.

- Users will have the ability to create a unique username in order to link their login and statistics to

Overview

- Main Components
  - Login for both player 1 and player 2, registration for new players, and ability to logout
  - Selection of X or O
    - Randomly selects a player to be the first picker
  - Fully functional Tic-Tac-Toe gameboard
    - Switches between user depending on who went first
    - Places picture of x or o depending on user
    - Updates statistics at conclusion of round
    - Games will continue until user clicks end game button

Project Scope

- Activities
  - Designing the website
  - Building the website
  - Design the database
  - Build the database
  - Code game logic
- Testing
  - User registration, Login
  - All scenarios that can happen in a game of Tic-Tac-Toe
  - Random user selected to pick x or o
  - Input validation

Project Schedule

Task Name	Start	End	Duration
Tic-Tac-Toe: The Game	10/24/2017	12/14/2017	41 Days
Project Proposal	10/24/2017	11/2/2017	9 Days
Web System Planning	10/24/2017	10/30/2017	7 Days
Proposal Compilation	10/31/2017	11/1/2017	2 Days
Web System Development	11/3/2017	12/12/2017	23 Days
Front-End Development	11/5/2017	11/15/2017	11 Days
Database Creation	11/16/2017	11/17/2017	2 Day
Back-End Development	11/18/2017	11/27/2017	10 Days
Final Project Deliverables	11/2/2017	12/14/2017	10 Days
Progress Report 1	11/2/2017	11/4/2017	3 Days
Progress Report 2	11/28/2017	11/30/2017	3 Days
Final Project Files, Report, PowerPoint Turn In	12/10/2017	12/12/2017	3 Days
Final Project Presentation	12/14/2017	12/14/2017	1 Day

Milestones/Deliverables

- Web Application
  - Front-end components completed
  - Back-end components completed
  - Database built
  - Application tests
- Final Report
- Final Presentation

Requirements

- UI and Data Presentation
  - Welcome Page
  - Login Pages
    - User Creation Page
    - Input validation
  - X and O Selection Page
  - Tic-Tac-Toe Gameboard Page
    - Wins, Losses, and Tie Statistics for Each User
- Server Requirements
  - Cloud9
    - MySQL
    - Apache/PHP – Provides Public Domain Name
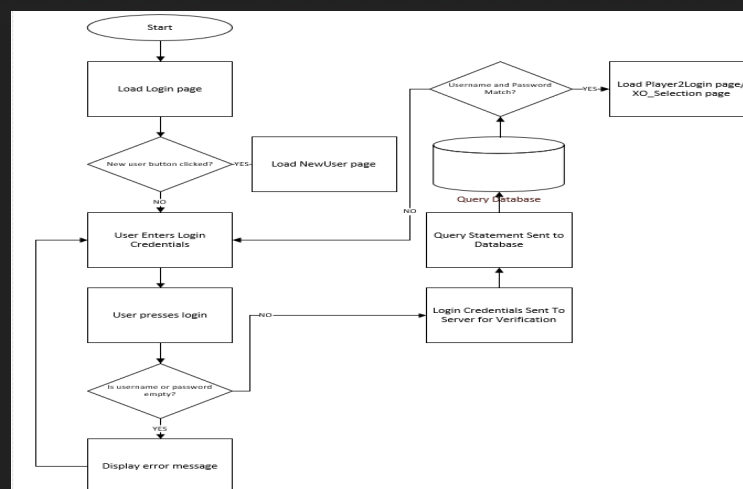   - Disk Size: 2GB, Memory: 512MB, 1 CPU
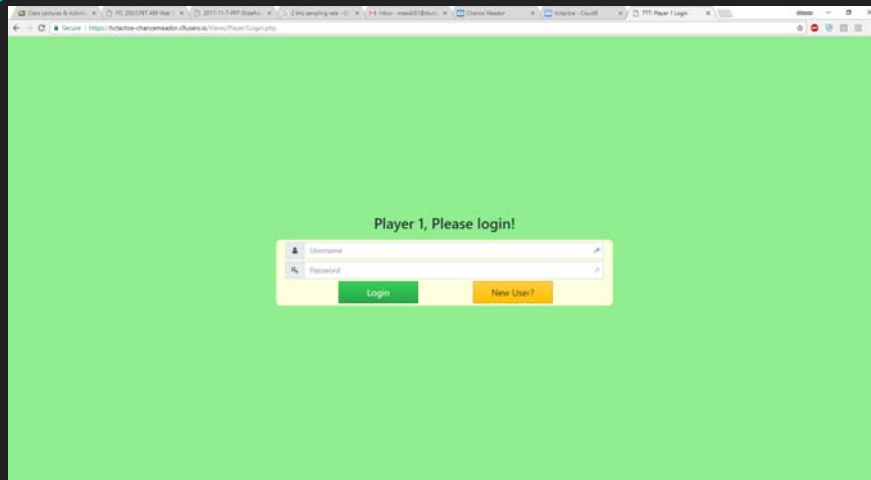
System Design - Overview
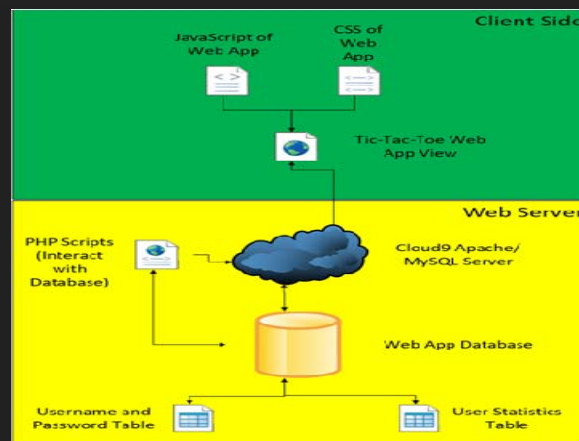
Major Components/Tools

- Hardware
  - Cloud-Based Linux Virtual Machine (Cloud9)
  - PC to Access Cloud9 Virtual Machine for Development
- Software
  - Cloud9 Web Application
    - Text Editor
    - Apache/PHP Web Server
      - PHP
      - HTML5
      - JavaScript, JQuery, AJAX
      - CSS
    - MySQL
      - Phpmyadmin for Database Management

System Design – User Login
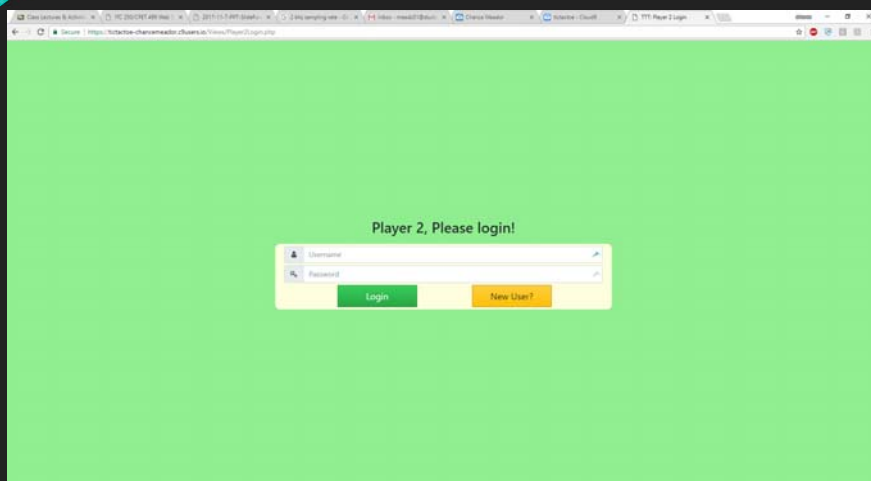
UI – User Login

UI – User Login Continued

System Design – New User Creation
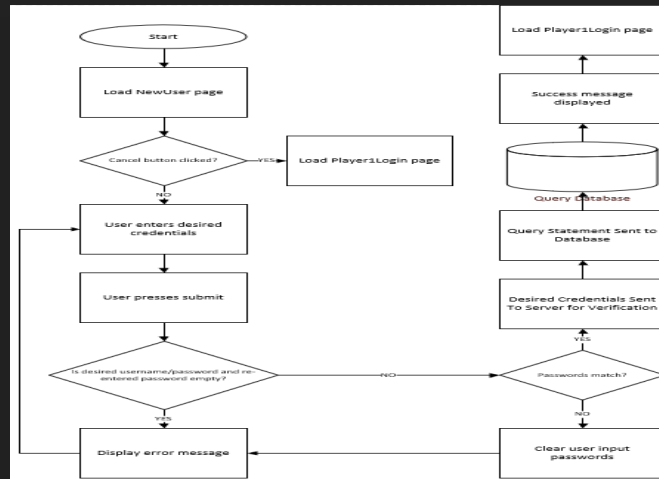
UI – New User Creation
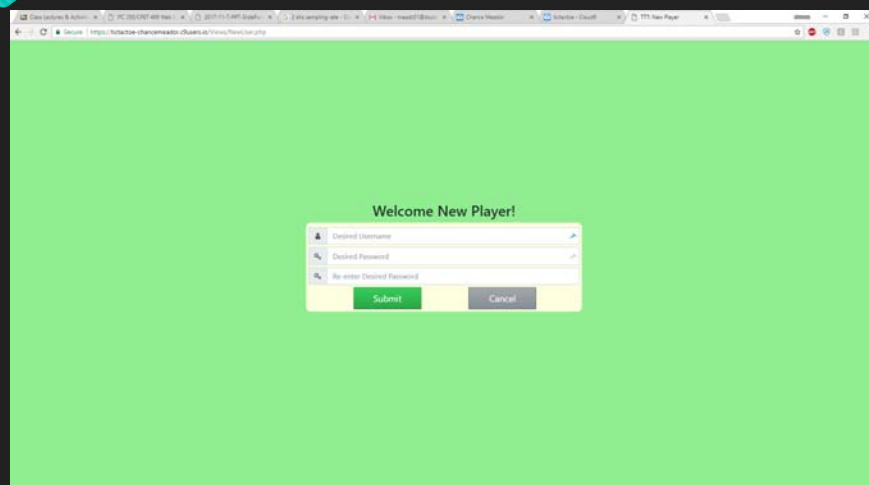
System Design – Game Piece Selection
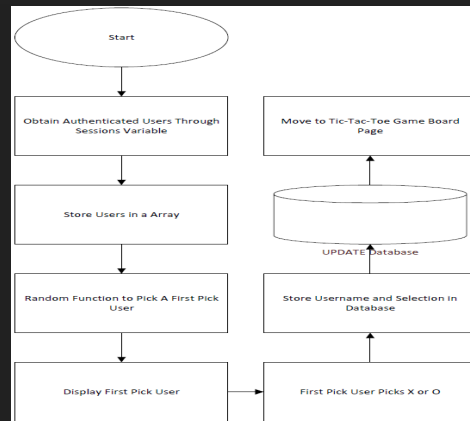
UI – Game Piece Selection
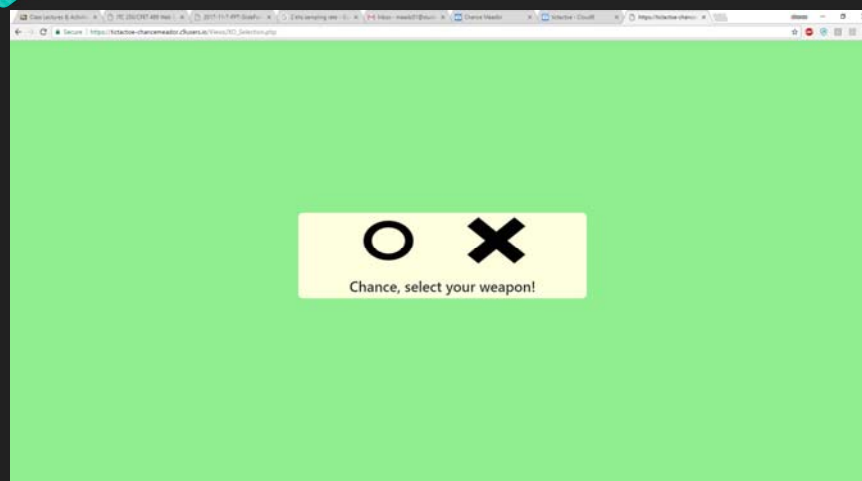
System Design – Tic-Tac-Toe Game
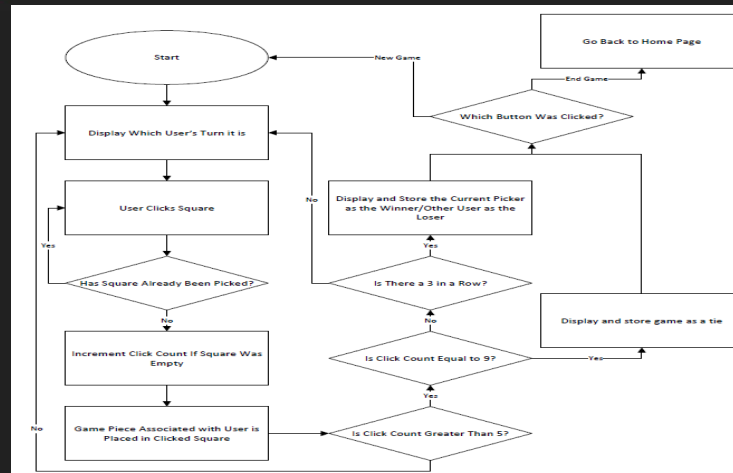

System Design – Statistics Display
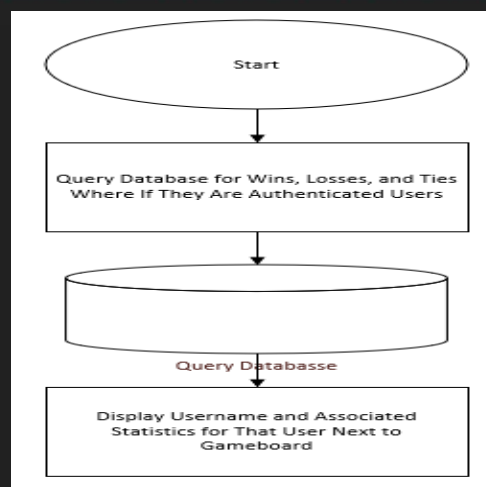
UI – Tic-Tac-Toe Game/Statistics Display
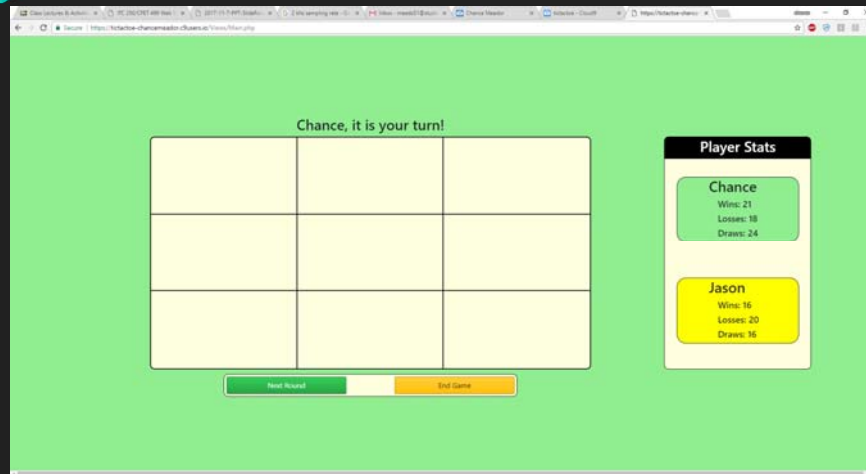
Testing

- User Creation
  - Created two new users
  - Validated that you can not duplicate them
- Login
  - Both users successfully logged in
- Game Piece Selection
  - Verified that user is picked at random
- Tic-Tac-Toe Game
  - User places their respective pieces
  - User can win in all allowable scenarios
  - Game can be reset after a victor/draw is declared or return to home screen
  - Statistics updated upon loading and after each round end

Testing- User Creation
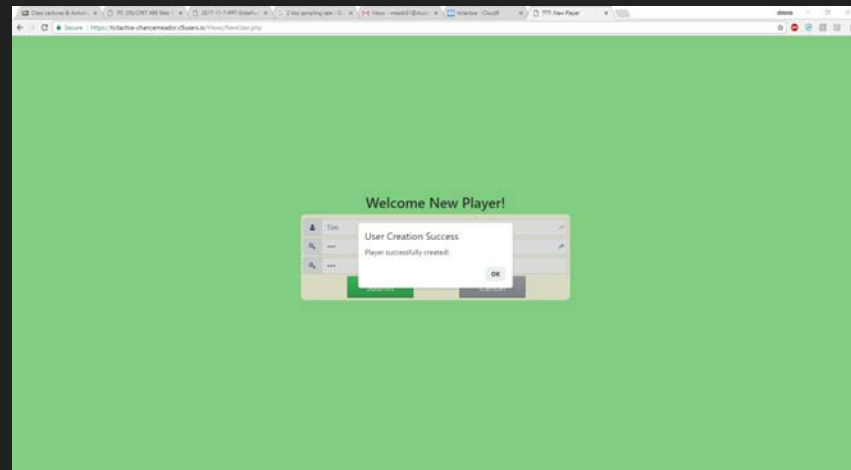
Testing- User Creation Continued
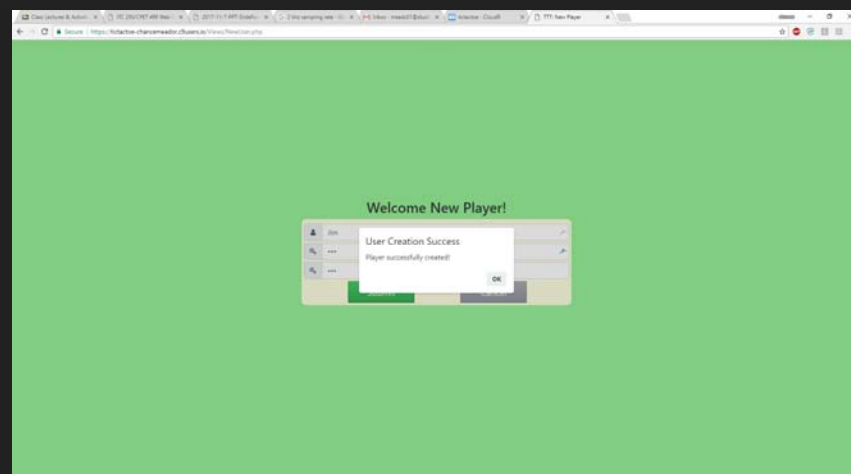
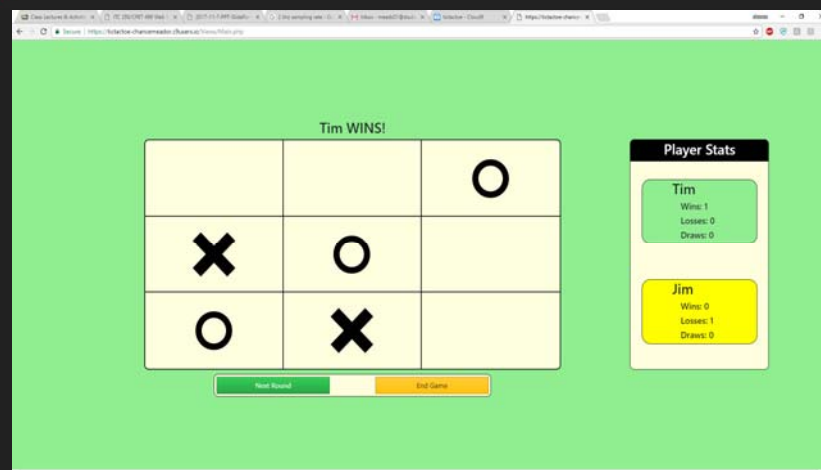# Testing- User Creation Continued
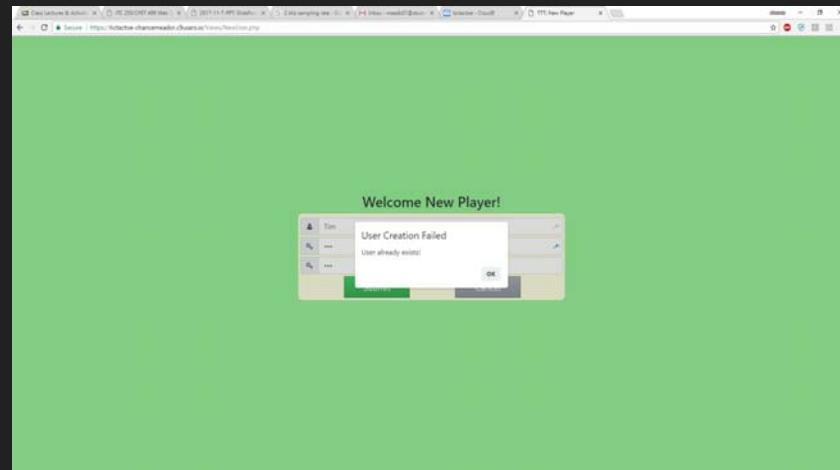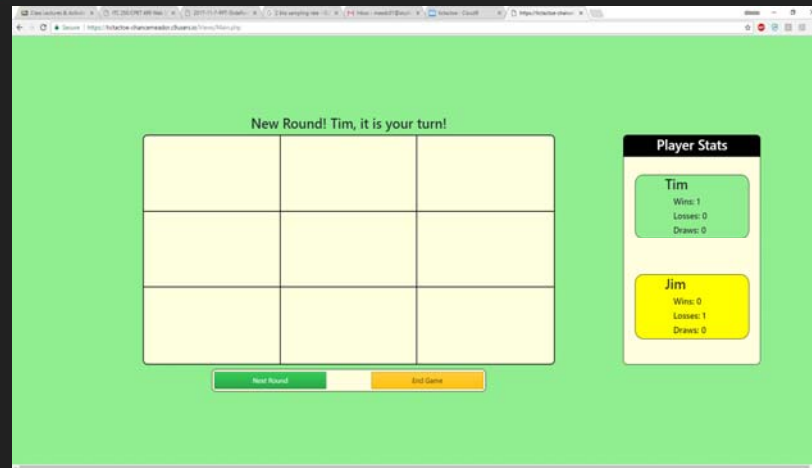

Testing- Piece Selection/User Login

Testing- Game
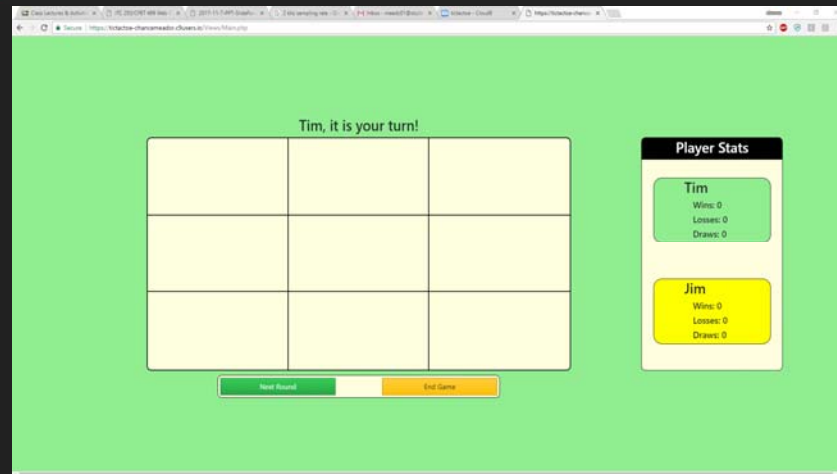
Testing- Game Continued

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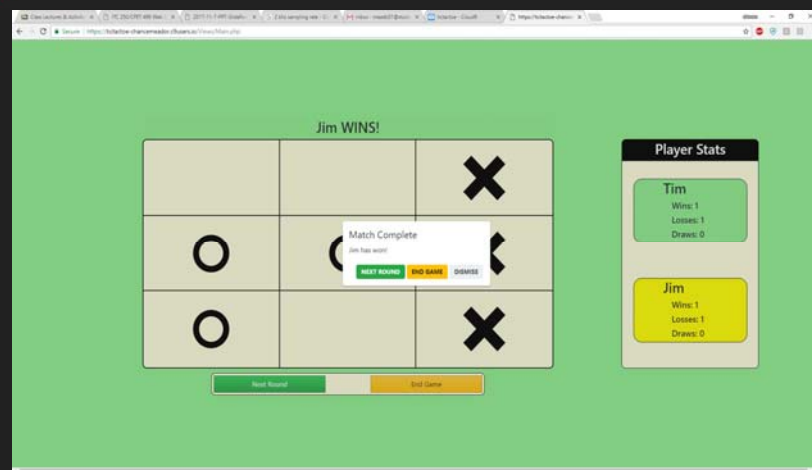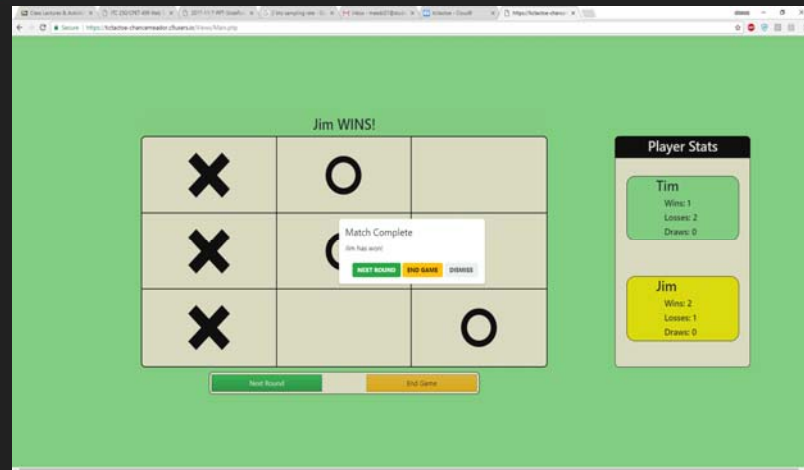
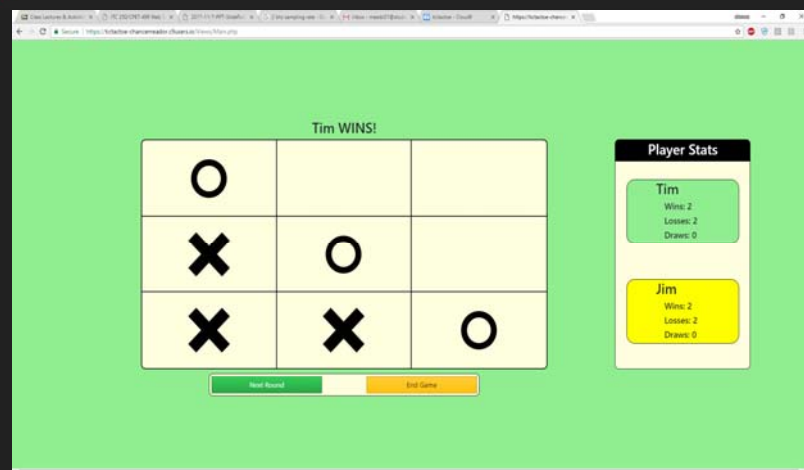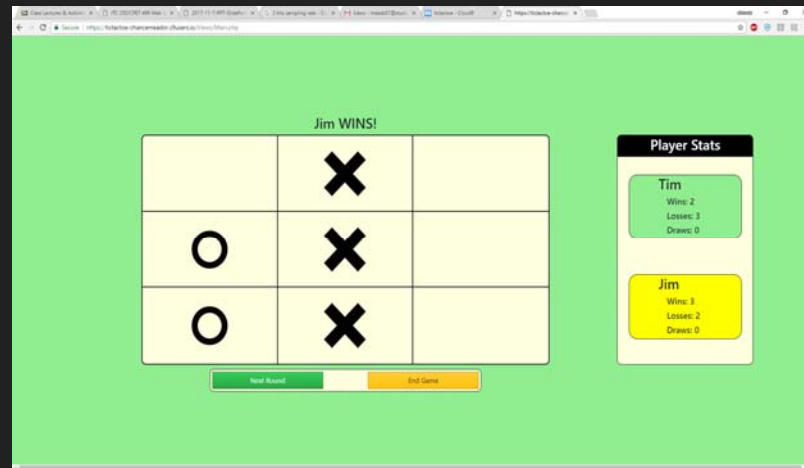# Testing- Game Continued

Testing- Game Continued
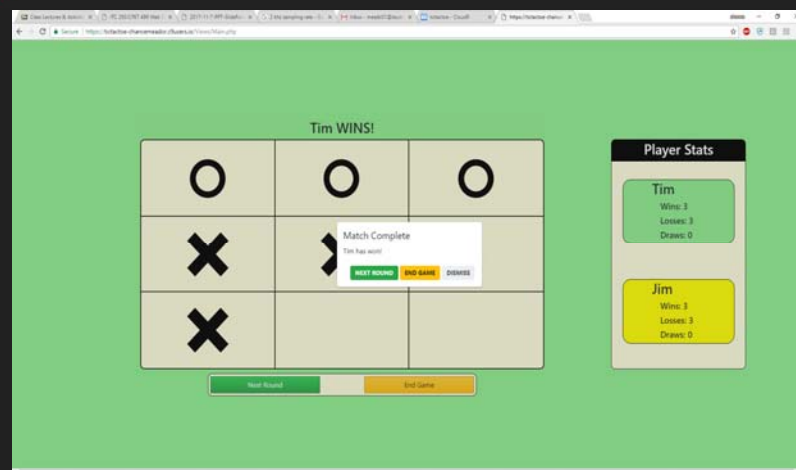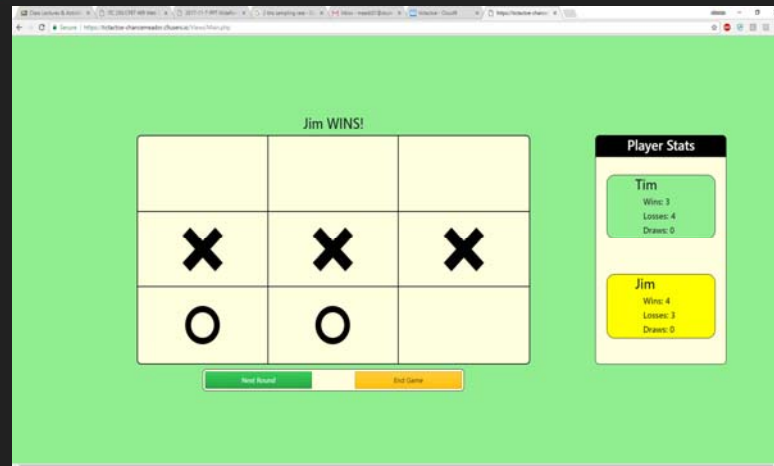

Testing- Game Continued

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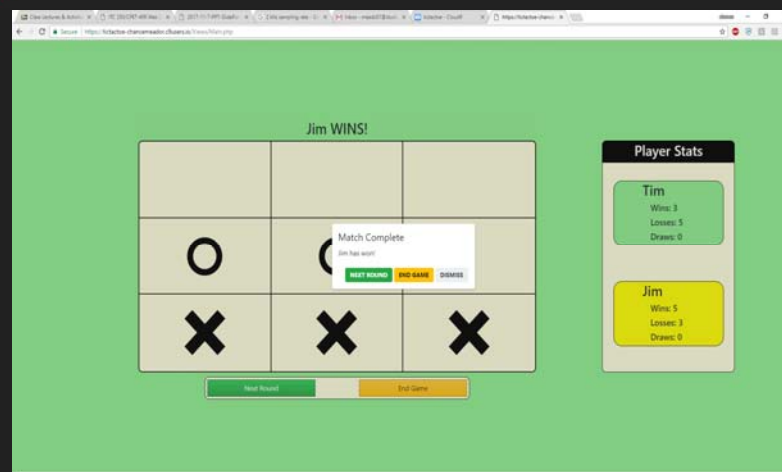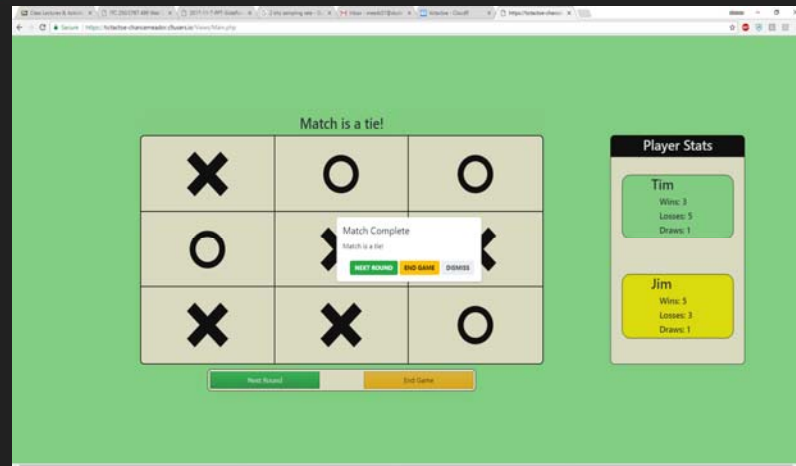

Testing- Game Continued

Testing- Game Continued

LIVE DEMONSTRATION

QUESTIONS?