

Software Engineering



Reykjavik University
Computer Science

Design Report

Hootie and the Swagfish
Akureyri

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Introduction

For this project we, Hootie and the Swagfish, developed a web application game called TicTacToe. The game itself is very simple. It's a two player game, X and O, where they take turns marking the spaces in a 3x3 grid. The goal of this game is to place three marks in a horizontal, vertical or diagonal row. If you succeed you'll win the game.

However the main focus for this project is not the programming the game, but the development behind it and to learn how to set up technical infrastructures that supports agile development.

Design environment

Each member of our team has access to the repository for the code on GitHub. Four of our developers used SSH clients like putty and bash to clone the repository onto their own virtual machine, one developer used Terminal on his own computer running Ubuntu. We used Teamspeak and Google Hangouts outside of school hours to work together on this project. We also connected our project with Slack so every time something is deployed on Heroku, or pushed to GitHub for example, we get a notification on Slack.

The code for the project was written in Java, comments were written in the XML syntax. We used Spark to deploy a website for the system, and inside the website we used javascript with jQuery and json to communicate with Java to handle various requests.

We used Heroku to deploy our project to a website, since the project is web-based.

Throughout this whole project we used Test Driven Development. To accomplish this we used selenium for automated web-side testing and Travis to perform tests on every commit pushed to GitHub.

Class diagram

