



# Interactive Football Playbook and Communication Platform

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*The will to win is not nearly so important as the will to prepare to win.*  
*-Vince Lombardi*

## Abstract

The goal of this project was to create an interactive playbook for the University of Iowa Football Team. Based on suggestions from defensive coaching staff, this application has developed into a platform for coaches to create plays, upload weekly game preparation documents, and communicate with players, and for players to prepare for upcoming games.

## Introduction

Football is a sport where preparation is vital. There are eleven players on the field at a time and all of them must work together to be successful. In order to be successful everyone must do their job. The above Lombardi quote alludes to the importance of preparation in sports, namely football. The current problem is that players need to study these assignments in an old fashioned playbook. These playbooks are filled with numerous rules, diagrams, and terminology which can be overwhelming. F players today live in a world of instant gratification, where dynamic and up to date information is available in the palm of their hands. An application using modern technology to help coaches communicate up-to-date information to their players could aid in the preparation required for football.

## Aim

This application is designed to optimize the way coaches create and distribute playbook information, and to serve as a central location for players to access everything they need for preparation. Our team aimed to include:

- Secure login for different user types
- Defensive play creation based on play component templates
- Weekly packet and tip sheet creation and viewing
- Playbook view for players to sort plays by name, offensive play call, defensive front or coverage, and more.
- Ability for coaches to view players' application use statistics

## Method

Our team needed to leverage the ideal technology to implement our client's desired features. Based on requirements and our group's areas of expertise, this application was designed as a Ruby on Rails web application. Also utilized were the Cloud9 development environment and GitHub for version control.



GitHub

Responsibilities were delegated based on team member interests and expertise.

- Douglas – Play and template creation and storage
- Tyson – Member registration, user statistics, text message notifications, administrator features, play display and filtering
- Tyler – Project setup and requirements, template/play creation process and database setup
- Ricardo – Weekly Tip Sheet and Friday Packet upload, storage, and viewing, page design, instruction page

Team meetings occurred twice weekly throughout the semester. Work was completed in a collaborative environment with all members seated together. Periodic meetings with sponsors were used to gather feedback and ideas for further features.

## Results

The Playbook is a platform for coaches to create plays, create and upload weekly packets and tip sheets, and send text notifications to players and coaches. Players are able to search, filter, and view plays, and review documents uploaded by coaches to prepare for games.



Figure 1 -The Playbook homepage

The application's template and play creation system allows coaches to create plays in seconds. The control panel gives the coach control all aspects of the play, including player assignments and accompanying play footage.

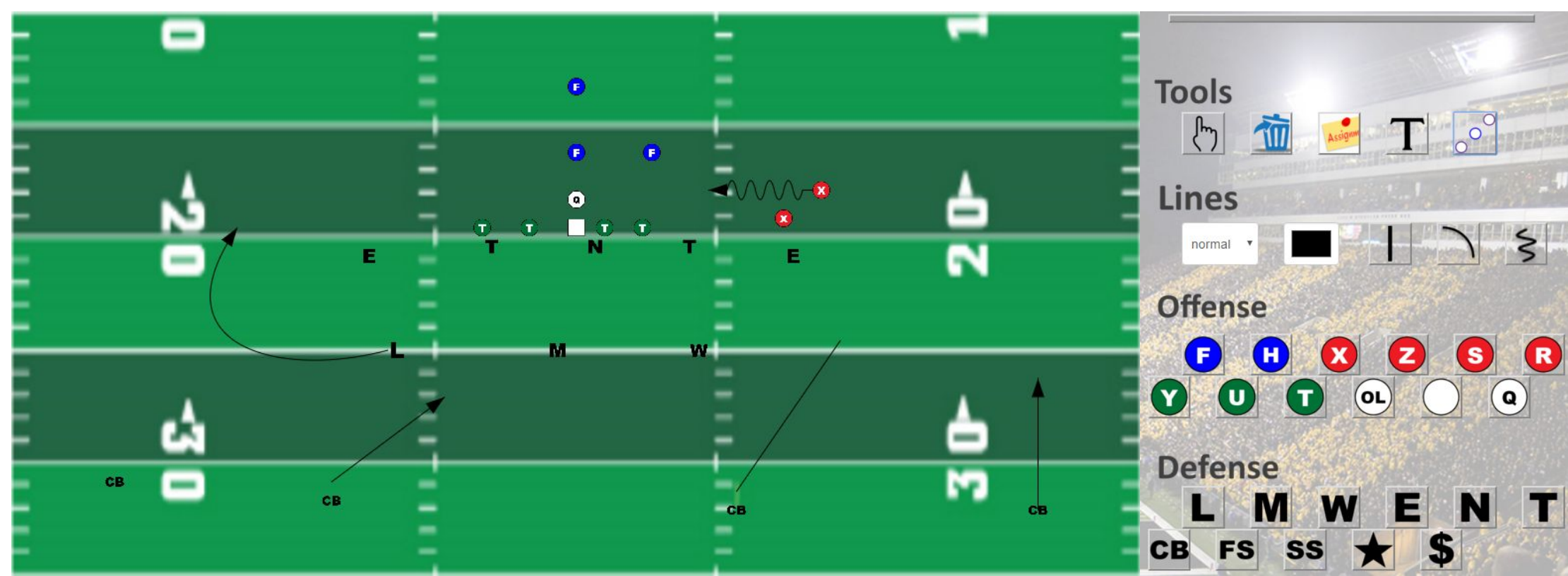


Figure 2 – The play creation canvas and control panel

Some features of The Playbook are restricted to desktop PC use, but it is mobile-compatible for players to use phones or iPads to prepare for games. The product is currently hosted by Heroku at <http://fierce-basin-40623.herokuapp.com>, but is accessible only by administrator invitation.

## Conclusion

The Playbook meets all major objectives and requirements designed in collaboration with our sponsor. Our group believes the product is ready to be adopted by a football team, but the challenge for the client lies in converting a well-established playbook system to this updated platform. Since this product is purely software, further value analysis would be required to determine a fair price. Possible future developments include improved mobile compatibility and a more accessible web address.

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