iPhone Native App for iShoe
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Introduction

Motivation

- Attending a football game provides a unique experience, but limits fan ability to access current stats, play-by-plays, and other information.
- The football game experience can be enhanced by making such information available to fans through a mobile application.
- The current iShoe website (http://iss.osu.edu/iShoe/) satisfies this need.

Project Overview

- An iPhone native application is capable of delivering a more enriched experience in terms of interface and presentation.
- Utilize these capabilities to develop a professional-looking and intuitive application through collaboration with students and faculty in the Department of Design.

Figure 1: A concept screenshot of the native iShoe app

Technology Assessment

Comparison of Application Types

- Creating a user interface outside of the Safari web browser allows for more natural navigation, increased viewing area, and a more enriched experience.

Web-Based iShoe App

- PHP and HTML
- Directly accesses MySQL server
- Occurs on the iShoe server
- No persistence, frequently accesses the MySQL server
- Static presentation limited by the mobile web browser
- Restricted to a single page layout regardless of orientation

Native iShoe App

- Objective C in XCode and Interface Builder
- Loads and parses JSON generated by PHP
- Occurs on the user’s device
- Capable of storing frequently accessed data locally
- Dynamic and interactive presentation in full screen
- Pages can display differently depending on device orientation

Figure 2: Comparison of the capabilities of web-based and native applications

System Architecture

Controller to Database

Internet

Model

MySQL

HTTP Server

Red Hat Linux Server

User Device

Controller

User OS

iShoe Server

View

Cache

iPhone App

Figure 3: System architecture

- The user device runs the application, which consists of a view layer and a controller. This communicates with the server through the internet.
- The iShoe server runs Red Hat Linux and an Apache HTTP server, which contains the model and a connective layer between the native application and the model.

Content Flow Diagram

Figure 4: Content flow diagram

- Drivetracker and Play-by-Play content is now grouped together under “Live!” which acts as a hub for the most frequently updated information.
- Smaller features, such as video and player searching, have been omitted.

Future Work

Architecture

- Implement several classes to handle data management and page display
- Design a more robust set of functions for accessing the database

Interface

- Determine how to best display content for the intended device
- Continue working with the Design Team to polish the interface

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