Athletic Storm
Vision
Version 2.0

Date	Version	Description	Author
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Introduction

This introduction displays an overview of the vision document, and describes the purpose, scope, definition, acronyms, abbreviations, references, and an overview of the full document.

<u>Purpose</u>

The purpose of this vision document is to provide an overview of the Athletic Storm project.

<u>Scope</u>

This document will introduce the position, describe the stakeholders and users, discuss the documentation requirements, and provide a general analysis of the features of Athletic Storm.

<u>Definitions, Acronyms, and Abbreviations</u>

In this document terms unique to the genre of athletic statistics are used. In this section those terms will be explained in full.

EP

EP stands for Expected Points, and is the statistic used to calculate PPA. EP takes the down, distance, and field position situation and calculates a measurable statistic from these variables.

PPA

PPA stands for Predicted Points Added, and is the statistic used in calculating the progress a team has made in the Athletic Storm coach rating algorithm. PPA is calculated by first calculating the EP at the start of each play and comparing that to the EP at the end of the play. In doing this PPA shows how a team is performing from game to game. This gives Athletic Storm a comparable statistic

SP+

SP+ is a college football rating system calculated by looking at a team's play-by-play and drive data. In the Athletic Storm coach rating algorithm, SP+ is used in taking away the bias of competitive resistance when looking at the growth of a team's PPA.

<u>References</u>
Use Case Diagram, 5 March 2020, Evan Baker
Use Case Brief, 5 March 2020, Evan Baker

Positioning

Business Opportunity

The job of a division I college football coach is one of instability. For many programs head coach, offensive coordinator, and defensive coordinator jobs are much like a revolving door. Whenever one of these jobs comes open the administration must make the decision of which coach should fill the open position.

Problem Statement

This search for a new coach requires countless hours of research and interviews with potential fillers. This inconvenience to the athletic department might result in a fruitless endeavor, as the selected coach might prove to be lacking in some departments.

Product Position Statement

With Athletic Storm we are trying to simplify this coaching hunt. Our software provides a reliable standard for rating head coaches, offensive coordinators, and defensive coordinators. The worth of a coach is placed in the talent growth of their players. This principle is our software's backbone. We track the growth of athletes from game to game and through our algorithm we are able to come up with an optimal, unbiased, coach rating procedure.

For	DI College Football Associates and Fans
Who	Are in need of determining a coaches quality
Athletic Storm	Is a coach rating application
That	Rates D1 College Football head coaches, offensive coordinators, and defensive coordinators
Unlike	Bleacher Report, CBS Sports, ESPN
Our Product	Uses an unbiased and optimal algorithm to rate DI College Football head coaches, offensive coordinators, and defensive coordinators.

Stakeholder and User Descriptions

<u>Market Demographics</u>

The key market demographic for Athletic Storm are the athletic staff members who are tasked with finding new head coaches, offensive coordinators, and defensive coordinators. In addition, the Athletic Storm application is designed for college football fans who are curious about how well their coach is rated.

<u>Stakeholder Summary</u>

Name	Description	Responsibilities
Athletic Storm Team	We, the company, that is creating this application.	- Creating the service - Performing application maintenance - Testing features - Providing demonstrations of progress - Ensuring customer validation
Customer	The customer of the Athletic Storm application.	- Monitoring application progress - Specifying requirements for application

<u>User Summary</u>

Name	Description	Responsibilities	Stakeholder
Redshirt Users	Users who have purchased the Redshirt subscription of Athletic Storm.	● Create user accounts ● View 10 teams and their coaches ratings	Customer
Starter Users	Users who have purchased the Starter subscription of Athletic Storm.	● Create user accounts ● View 20 teams and their coaches ratings	Customer
MVP Users	Users who have purchased the MVP subscription of Athletic Storm.	● Create user accounts ● View all teams and their coaches ratings.	Customer

<u>User Environment</u>
Each user will create an account and select a subscription tier. All users will then select which team they would like to view. With redshirt users being allowed to view 10 teams, starter users being allowed to view 20 teams, and mvp users being allowed to view all teams. Once the user is at the team's homepage they can view the ratings of that team's head coach, offensive coordinator, and defensive coordinator.

<u>Key Stakeholder or User Needs</u>
The Athletic Storm application will provide a service for those who are in need of determining how well a head coach, offensive coordinator, or defensive coordinator is performing. When an administration is looking for a new head coach, offensive coordinator, or defensive coordinator they no longer need to build a report on every coach in order to make their decision. Instead, the administration will use Athletic Storm to make an informed decision on which coach best fits the job.

Alternatives and Competition

There are currently many D1 college football coach ranking websites, but there are no D1 college football coach rating websites. Because of the similarity between ranking and rating the ranking genre will be considered as competition. The most popular D1 college football coaching ranking websites are Bleacher Report, CBS Sports, and ESPN.

These websites have people who monitor the college football season, and from their finding they rank D1 college football coaches. This means that their ranking algorithm is biased based on their beliefs. However, the site's bias is overlooked based on the name of the site. ESPN, CBS Sports, and Bleacher Report all have very recognizable names that cary trust in the consumer's eye.

Unlike the competition, Athletic Storm uses an unbiased algorithm for rating the head coach, offensive coordinator, and defensive coordinator of a program. The ratings developed by Athletic Storm are strictly based on statistical evidence taken from the improvement of the coach's team from week to week.

Product Overview

The Athletic Storm application aims to provide a user friendly, reliable, and unbiased platform for users to see the performance of D1 college football coaches. Key features of this application include: analyzing a team's improvement over time in order to rate that teams coaches, displaying the ratings associated with a given teams coaches, and displaying other important information about a given team and the team's head coach, offensive coordinator, and defensive coordinator.

Product Perspectives

The Athletic Storm application will be built using kubernetes with three docker containers. Data for this application will be stored in a MySQL database docker image. The base of this application is using a Spring framework, with Java serving as the backend. More data will also be filtered through the Athletic Storm REST API. For the front end, NodeJS and associated JavaScript will be used to render web pages. Connecting the client to the kubernetes will be a Nginx Reverse Proxy. The client will also retrieve data from the College Football API.

Assumptions and Dependencies

There are several assumptions and dependencies that are connected with the technologies being used. Primarily, in order to access the application users must have internet connection. The final product will be released as a web application and not as a desktop or android/iOS application. A further assumption is that the user will be operating the application in English. At this time, no plans are made to release the application in any languages other than English. Testing for the application will occur primarily in the browsers Google Chrome, Firefox, and Safari, and support for the application in other browsers is not guaranteed.

Cost and Pricing

The pricing of Athletic Storm is built on a subscription basis. There are three tiers of Athletic Storm users: redshirt users, starter users, and mvp users. Redshirt users are required to pay $4.99 monthly in order to view 10 teams. Starter users are required to pay $9.99 monthly in order to view 20 teams. MVP users are required to pay $14.99 in order to view all teams.

Licensing and Installation

Licensing and installation are discussed in the Installation Guide.

Product Features

Features of the Athletic Storm application include the ability to: create a user account, delete a user account, reset a user's password, select a subscription tier, switch a subscription tier, view a given team, sort a team's players and coaches, and view the ratings of a given teams head coach, offensive coordinator, and defensive coordinator.

Create a User Account

Users should be able to create an account with a username and password.

Delete a User Account

Users should be able to delete their account and be sure that their account data will not be compromised. Upon account deletion, user account data will be wiped from the database and not be available to anyone.

Reset a User's Password

If a user forgets a password, the user should be able to reset their password. An email will be sent to the user, and the user will be able to reset their password via a link that they receive in their email.

Select a Subscription Tier

Users should be able to select a subscription tier to pay for and receive the respective content.

Switch a Subscription Tier

Users should be able to switch to a different subscription tier.

View a Given Team

Users should be able to view the appropriate amount of team pages based on their subscription. These team pages will display the players and coaches on the given team.

Sort a Team's Players and Coaches

Users should be able to sort a given teams coaches and players based on rating, year, and usability.

View the Rating of a Given Teams Coaches

Users should be able to view the rating of a team's head coach, offensive coordinator, and defensive coordinator. These ratings will be displayed on the team's homepage and the selected coach's homepage.

Other Product Requirements

The user must have continual access to the internet for the application to work. If the user is disconnected from the internet at any time, the application may cease to work properly

Documentation Requirements

<u>Installation Guide</u>

This guide will show the reader how to properly install the technologies needed for Athletic Storm.

<u>Programmer Guide</u>

This guide will show how Athletic Storm works on a more technical level.

<u>User Guide</u>

This guide will show the features of Athletic Storm from a user's perspective and illustrates how to access said features.

<u>Wireframe</u>

The wireframes will show the UI prototypes for each web page in Athletic Storm.

<u>Requirements</u>

The requirements will show what the client expects from Athletic Storm.

<u>Use-Cases</u>

The use-cases will show the different ways to use Athletic Storm.

<u>Planning Document</u>

The planning document will show the detailed process of how Athletic Storm is developed.

<u>Data Flow Document</u>

The data document will show the data used in the development of Athletic Storm.

<u>Glossary of Terms</u>

The glossary of terms will define specific terms used in the Athletic Storm project.

<u>Conceptual Solution</u>

The Conceptual Solution will provide a high-level overview of the Athletic Storm project.

<u>Network Topology Diagram</u>

The network topology diagram will outline the computer network and how it is connected for the Athletic Storm project.

Authentication and Authorization Documentation

The authentication and authorization documentation will describe how Athletic Storm authenticates and authorizes users.

Description of Design Patterns

The description of design patterns document will describe the design patterns used in Athletic Storm.

Sample Data Imports

The sample data imports document will display the types of data used in Athletic Storm.

Lessons Learned

The lessons learned document will show what the development team learned from developing Athletic Storm.

Admin Guide

The admin guide will show the Athletic Storm project from the admin point of view.

End User Documentation

The end user documentation will show users how to set up and navigate through the Athletic Storm website.