

Brent Porter
SWDV Capstone
3.22.2020
Week 2
Design – Service Layers

Bears Baseball – Service Layer Design Document

Table of Contents

MVP services	3
Service Descriptions	3
Admin user authentication Login Service.....	3
Admin user authentication LogOut Service.....	3
Admin Update Calendar Service.....	3
All User View Calendar Service.....	4
Admin Update Announcements Service	4
All user view announcements service	4
Stretch services.....	5
Service Descriptions	5
Admin Add Game Stat Service.....	5
All User Get Available Seasons	5
All User View Game Stat Service	5
All user View player stat service.....	7
Addendums	9
Architecture Diagram.....	9
MVP	9
Stretch	9
Wireframes with Services Identified	9
MVP	10
Stretch	15

MVP services

Service Descriptions

I anticipate needing 6 services in place. They are below:

Admin user authentication Login Service

- a. Post method used to create a session that returns a token to the client
- b. POST /Auth/Login
- c. Parameters
 - i. Username
 - ii. Password
- d. Return
 - i. 200
 - 1. Session Token
 - ii. 400
 - 1. Invalid Username or Password

Admin user authentication LogOut Service

- e. Delete Method that terminates the session and invalidates the session token on the client side
- f. DELETE /Auth/Logout
- g. Parameters
 - i. Session Token
- h. Return
 - i. All
 - 1. Logout Successful

Admin Update Calendar Service

- i. Post method that updates the calendar table with changes to that table
- j. POST /Calendar/Update
- k. Parameters
 - i. Session Token
 - ii. Type
 - iii. Date
 - iv. Time
 - v. Location
 - vi. Opponent
 - vii. Score
 - viii. Outcome
- l. Return
 - i. 200
 - 1. Event Created
 - ii. 400
 - 1. Could Not Create Event

All User View Calendar Service

- m. Get method that fetches the latest calendar data
- n. Get /Calendar
- o. Parameters
 - i. Date
- p. Return
 - i. 200
 - 1. All Events in the previous 90 days
 - 2. All events going forward from the submitted date
 - ii. 400
 - 1. No Events Found

Admin Update Announcements Service

- q. Post method that updates the announcements on the homepage
- r. POST /Announce
- s. Parameters
 - i. Session ID
 - ii. Date
 - iii. Time
 - iv. Announcement
- t. Return
 - i. 200
 - 1. Announcement Added
 - ii. 400
 - 1. Unable To add Announcement

All user view announcements service

- u. Get method that retrieves the announcements from the announcements Table
- v. Get /Announce
- w. Parameters
 - i. None
- x. Return
 - i. 200
 - 1. Announcement Date
 - 2. Announcement Time
 - 3. Announcement Text
 - ii. 400
 - 1. No Announcements Available

These 6 services broadly can be lumped into 2 categories: Admin use, and Public use. Admin services exist to allow the team managers who exist in the data distributor persona to update data in the database for view to the public. Viewing is primarily carried out by the remaining personas found in the Data Consumer, and the joint Consumer/Distributor roles. All of the Admin POST services match the former grouping, and all of the end user GET services match the latter. These services enable the MVP features I've outlined.

Stretch services

Service Descriptions

I anticipate needing 4 additional services in place. They are below:

Admin Add Game Stat Service

- a. Post method that adds game statistical data to the db
- b. Post /Stats
- c. Parameters
 - iii. Session Token
 - iv. Game ID
 - v. Player ID
 - vi. Game Played yes/no
 - vii. Runs
 - viii. Singles
 - ix. Doubles
 - x. Triples
 - xi. HomeRuns
 - xii. RBIs
 - xiii. Walks
 - xiv. Strikeouts
 - xv. Hit By Pitch
 - xvi. Stolen Bases
 - xvii. Caught Stealing
 - xviii. Sacrifice
 - xix. Reached on Error
 - xx. Fielder's Choice

All User Get Available Seasons

- d. Get method that returns values for season selection drop down
- e. Get /Season
- f. Parameters
 - xxi. None
- g. Return
 - xxii. 200
 - 1. Seasons
 - xxiii. 400
 - 1. No Seasons Available

All User View Game Stat Service

- h. Get method that returns game splits and season splits per user selection
- i. GET /Stats/Team
- j. Parameters
 - xxiv. Season Selection
- k. Return
 - xxv. 200
 - 1. Season Game Splits

- a. Date
- b. Opponent
- c. AVG
- d. Plate Appearances
- e. At Bats
- f. Runs
- g. Hits
- h. Doubles
- i. Triples
- j. Home Runs
- k. RBIs
- l. Strike Outs
- m. Walks
- n. Hit Batters
- o. Stolen Bases
- p. Caught Stealing
- q. Sacrifice
- r. Reached On Error
- s. Fielder's Choice
- t. On Base Percentage
- u. Slugging
- v. OPS

2. Season Player Splits

- a. AVG
- b. Games Played
- c. Plate Appearances
- d. At Bats
- e. Runs
- f. Hits
- g. Doubles
- h. Triples
- i. Home Runs
- j. RBIs
- k. Strike Outs
- l. Walks
- m. Hit Batters
- n. Stolen Bases
- o. Caught Stealing
- p. Sacrifice
- q. Reached On Error
- r. Fielder's Choice
- s. On Base Percentage
- t. Slugging
- u. OPS

3. Season by Season Splits
 - a. Date
 - b. Opponent
 - c. AVG
 - d. Plate Appearances
 - e. At Bats
 - f. Runs
 - g. Hits
 - h. Doubles
 - i. Triples
 - j. Home Runs
 - k. RBIs
 - l. Strike Outs
 - m. Walks
 - n. Hit Batters
 - o. Stolen Bases
 - p. Caught Stealing
 - q. Sacrifice
 - r. Reached On Error
 - s. Fielder's Choice
 - t. On Base Percentage
 - u. Slugging
 - v. OPS

xxvi. 400

1. An Error Occurred: No stats found

All user View [player stat service](#)

- l. Get Method that returns player stats for current season and career
- m. Get /Stats/Player
- n. Parameters
 - xxvii. Player Name
- o. Return

xxviii. 200

1. Current Season
 - a. Date
 - b. Opponent
 - c. AVG
 - d. Plate Appearances
 - e. At Bats
 - f. Runs
 - g. Hits
 - h. Doubles
 - i. Triples
 - j. Home Runs
 - k. RBIs

- l. Strike Outs
 - m. Walks
 - n. Hit Batters
 - o. Stolen Bases
 - p. Caught Stealing
 - q. Sacrifice
 - r. Reached On Error
 - s. Fielder's Choice
 - t. On Base Percentage
 - u. Slugging
 - v. OPS
2. Career
- a. AVG
 - b. Games Played
 - c. Plate Appearances
 - d. At Bats
 - e. Runs
 - f. Hits
 - g. Doubles
 - h. Triples
 - i. Home Runs
 - j. RBIs
 - k. Strike Outs
 - l. Walks
 - m. Hit Batters
 - n. Stolen Bases
 - o. Caught Stealing
 - p. Sacrifice
 - q. Reached On Error
 - r. Fielder's Choice
 - s. On Base Percentage
 - t. Slugging
 - u. OPS

xxix. 400

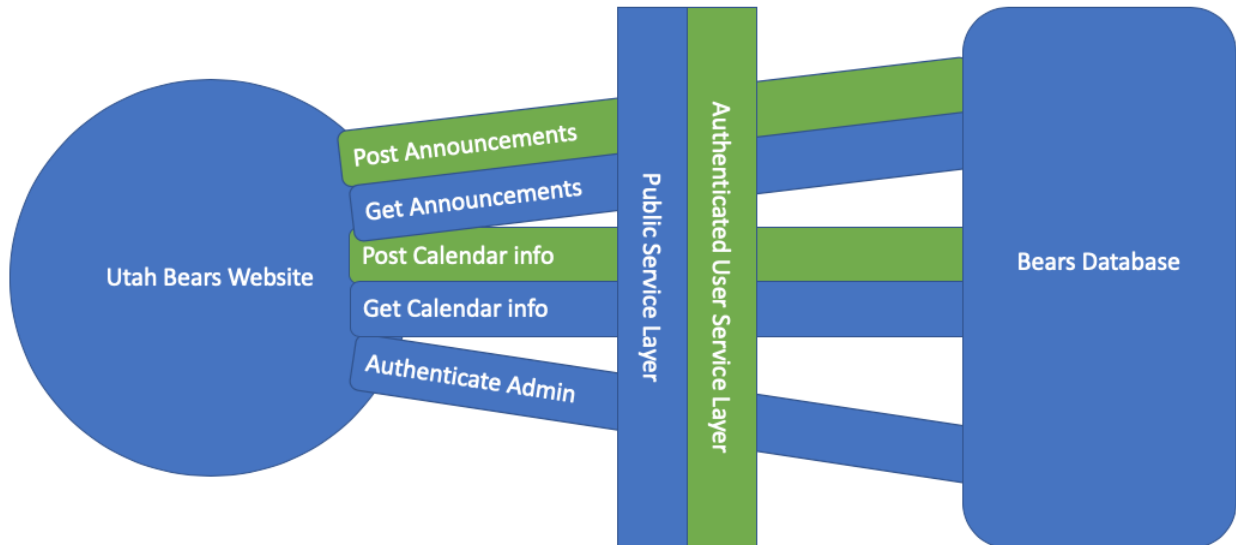
1. (Player Name) has not played in any games

These 4 additional services broadly can be lumped into 2 categories: Admin use, and Public use. Admin services exist to allow the team managers who exist in the data distributor persona to update data in the database for view to the public. Viewing is primarily carried out by the remaining personas found in the Data Consumer, and the joint Consumer/Distributor roles. All of the Admin POST services match the former grouping, and all of the end user GET services match the latter. These services will enable the additional Stat based features that I have moved to stretch from my MVP.

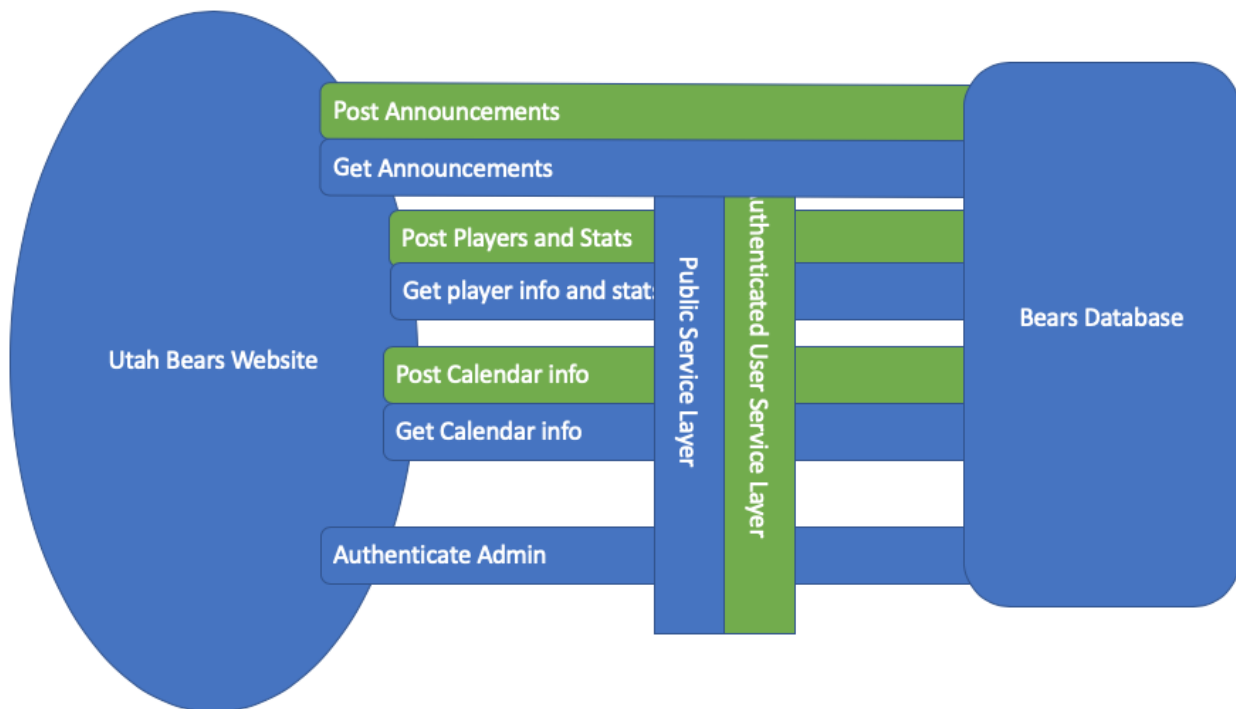
Addendums

Architecture Diagram

MVP

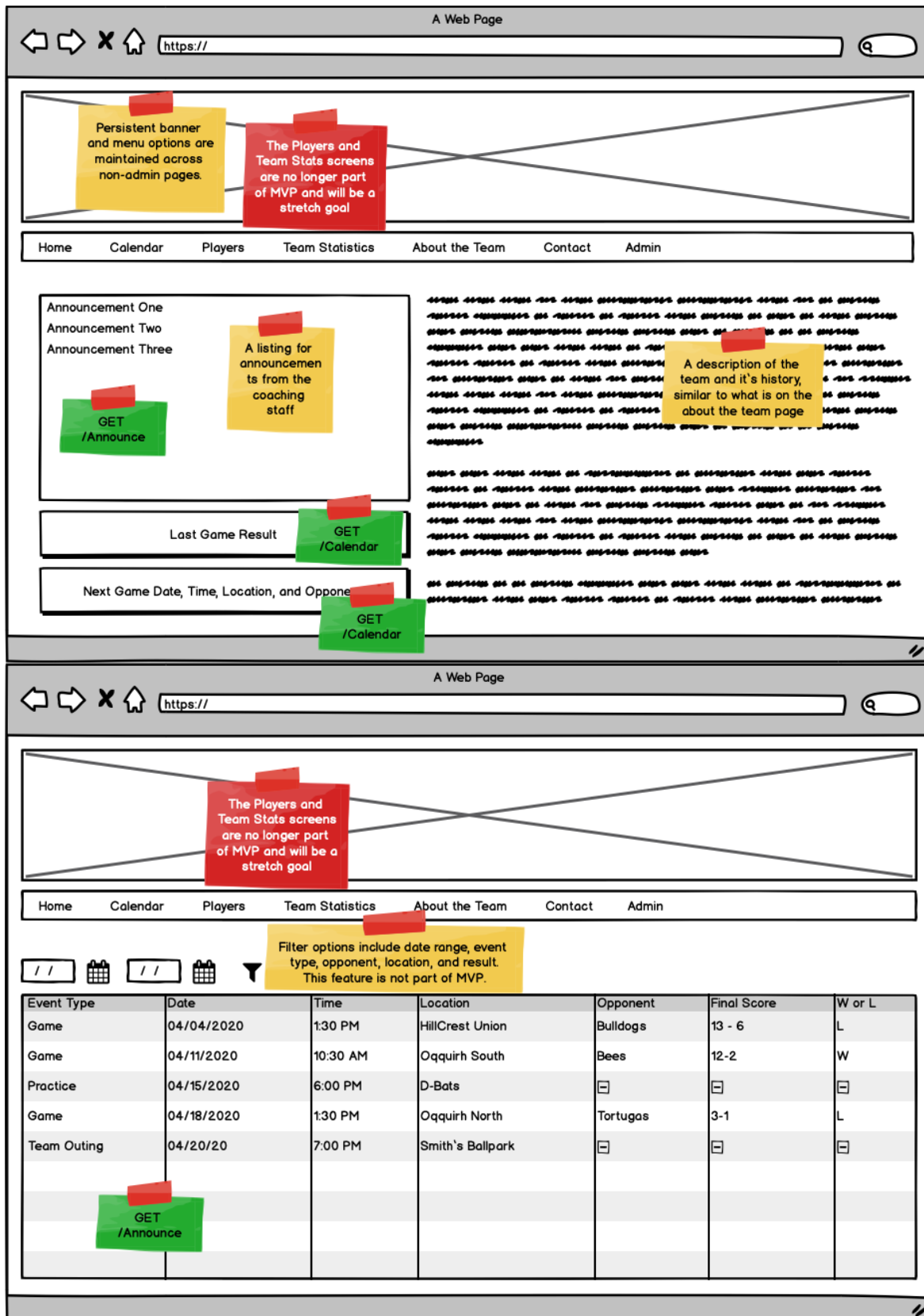


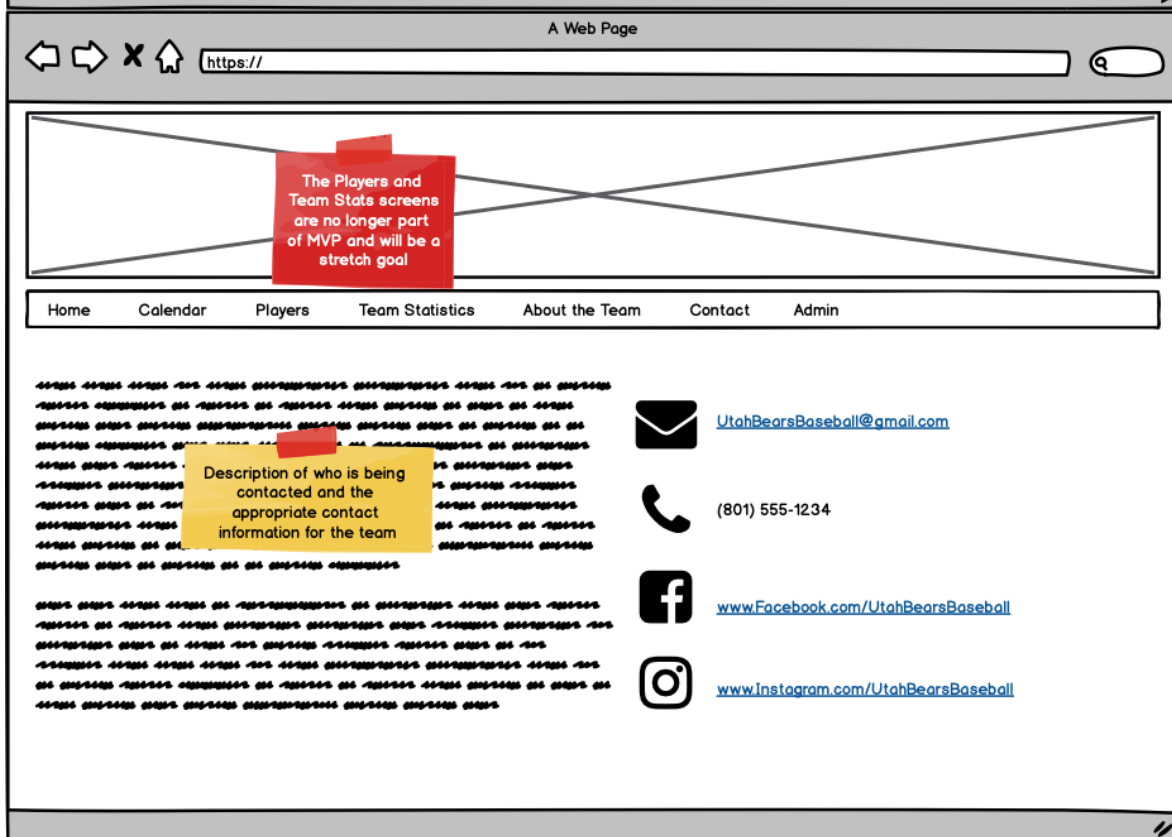
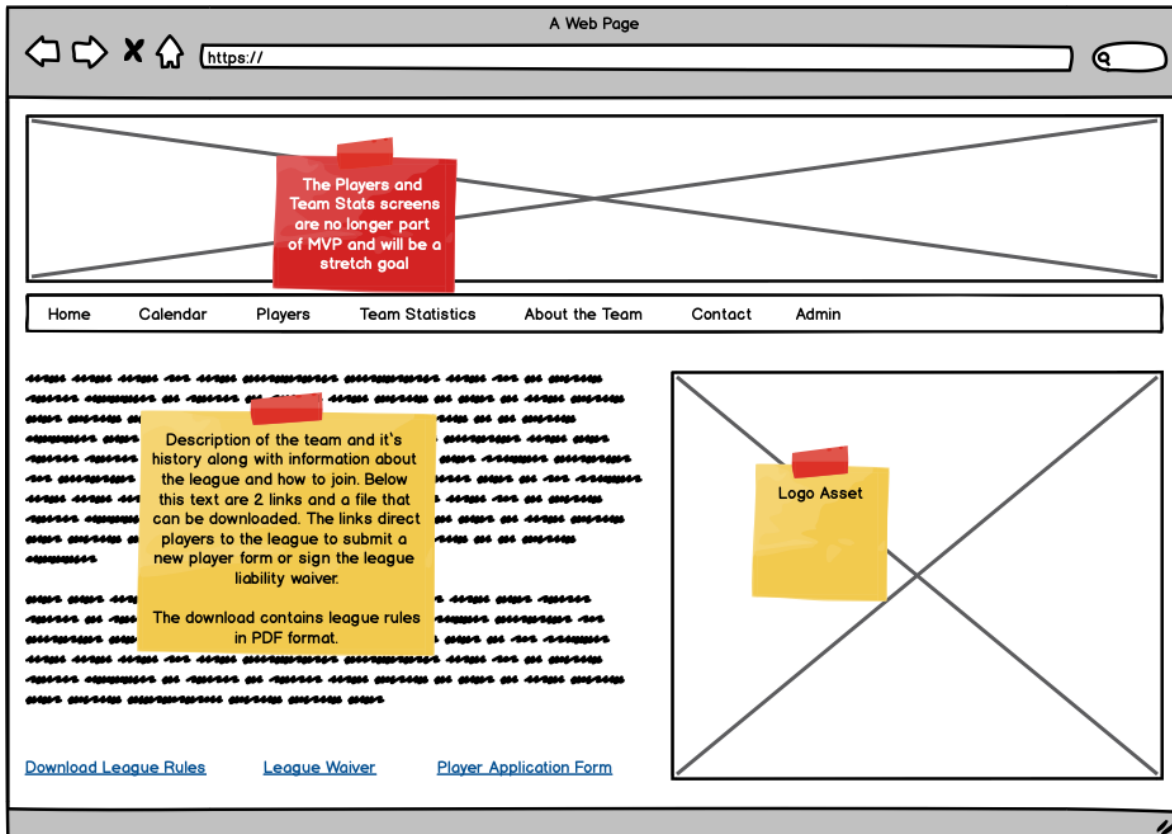
Stretch

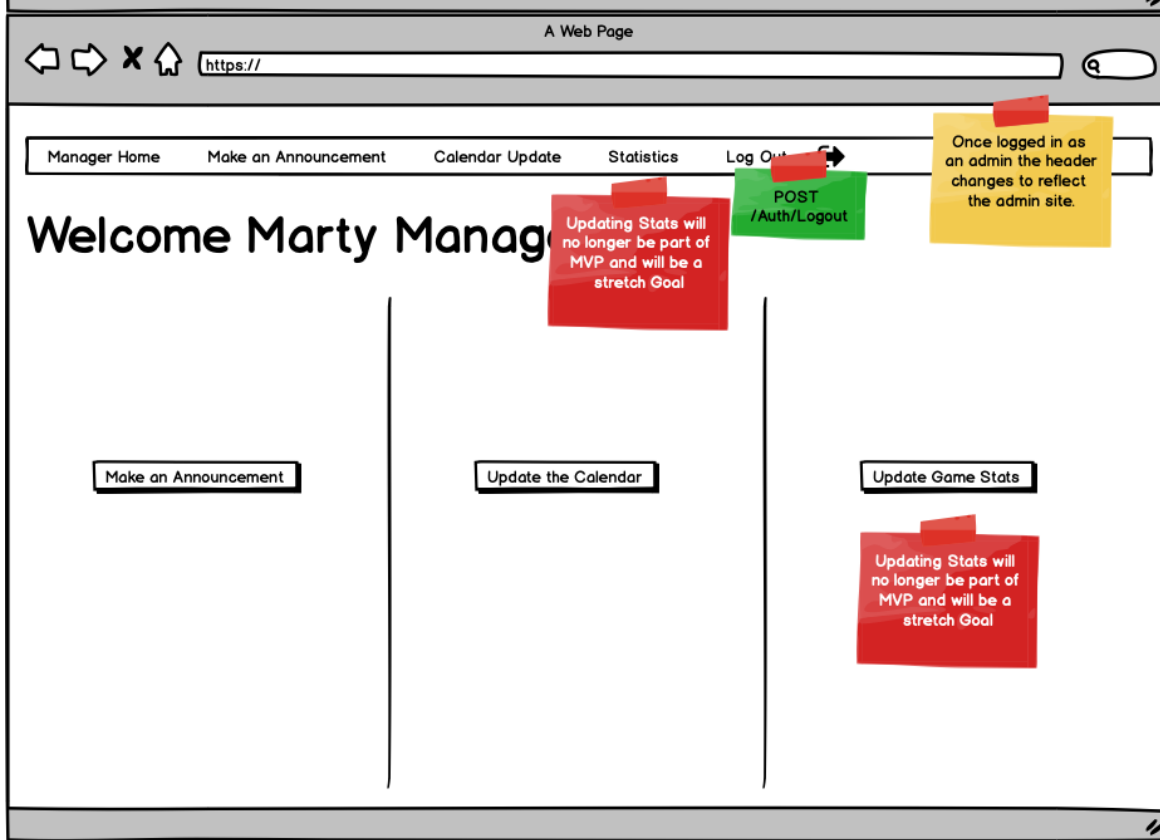
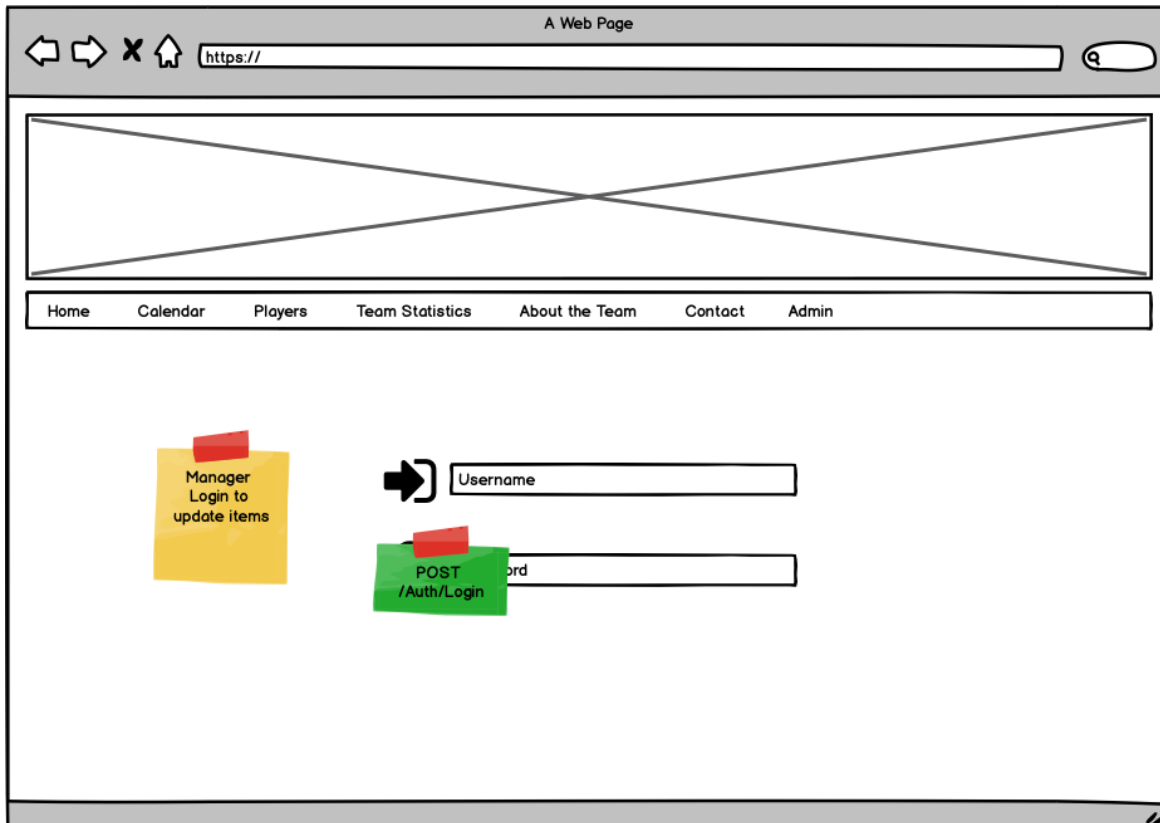


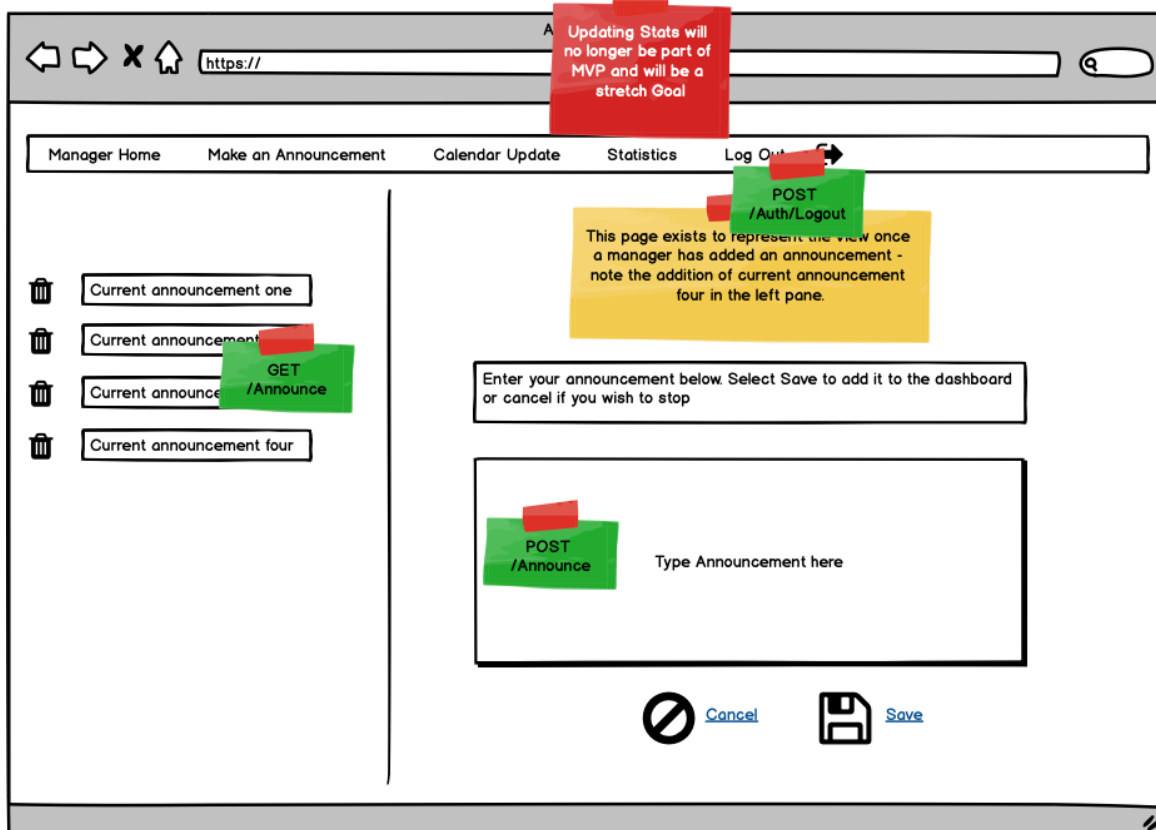
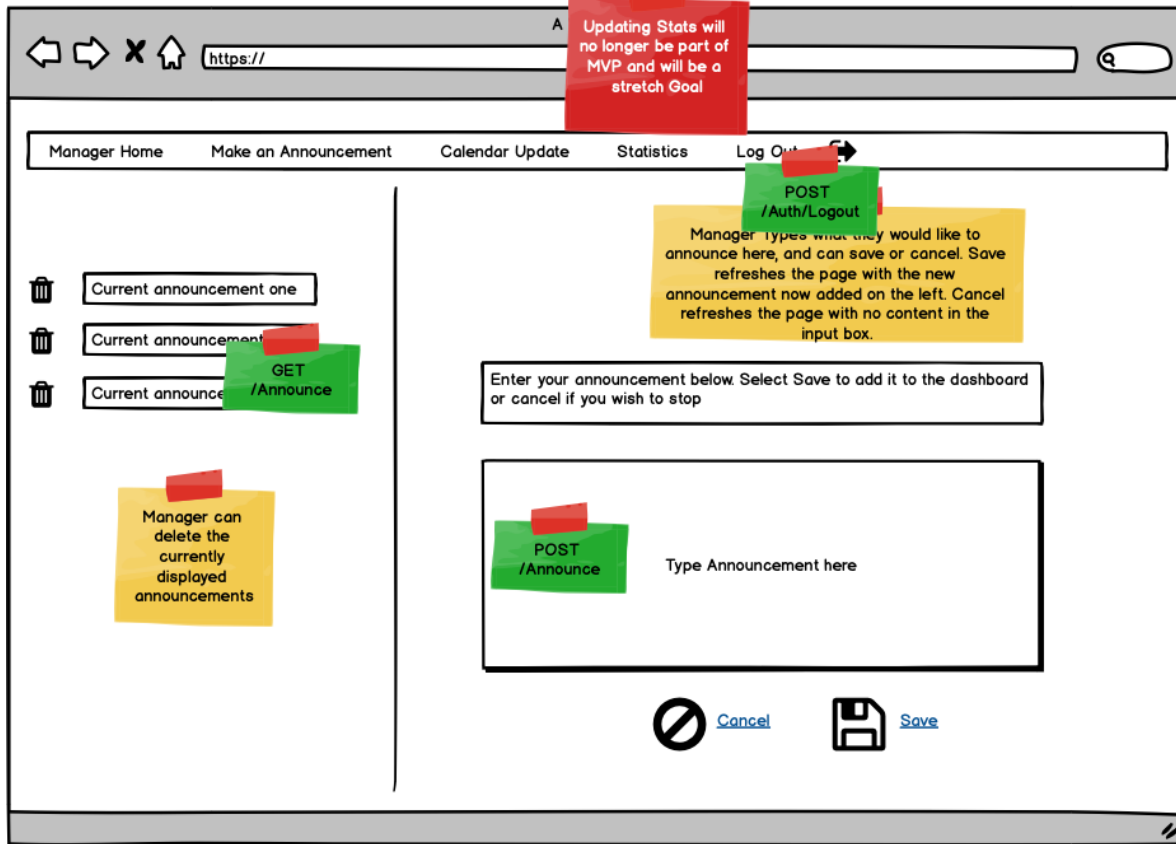
Wireframes with Services Identified

MVP









A Web Page
https://

Manager Home
Make an Announcement
Calendar Update
Statistics
Log Out

Please choose whether you would like to edit Or add a new event

Updating Stats will no longer be part of MVP and will be a stretch Goal

POST /Auth/Logout

Edit Calendar

Add New Event

Next 5 Events

Event Type	Date	Time
Game	04/04/2020	1:30 PM
Game	04/11/2020	10:30 AM
Practice	04/15/2020	6:00 PM
Game	04/18/2020	1:30 PM
Team Outing	04/20/20	7:00 PM

GET /Calendar

Edit calendar button takes a user to the edit and delete work flow to update current calendar items.

The add new event button walks a user through adding a net new event.

A Web Page
https://

Manager Home
Make an Announcement
Calendar Update
Statistics
Log Out

Please enter your event details below

*Indicates required

* Event Type

Optional fields for games

POST /Calendar

POST /Auth/Logout

/ /

Opponent

HH:MM | AM/PM

Final Score

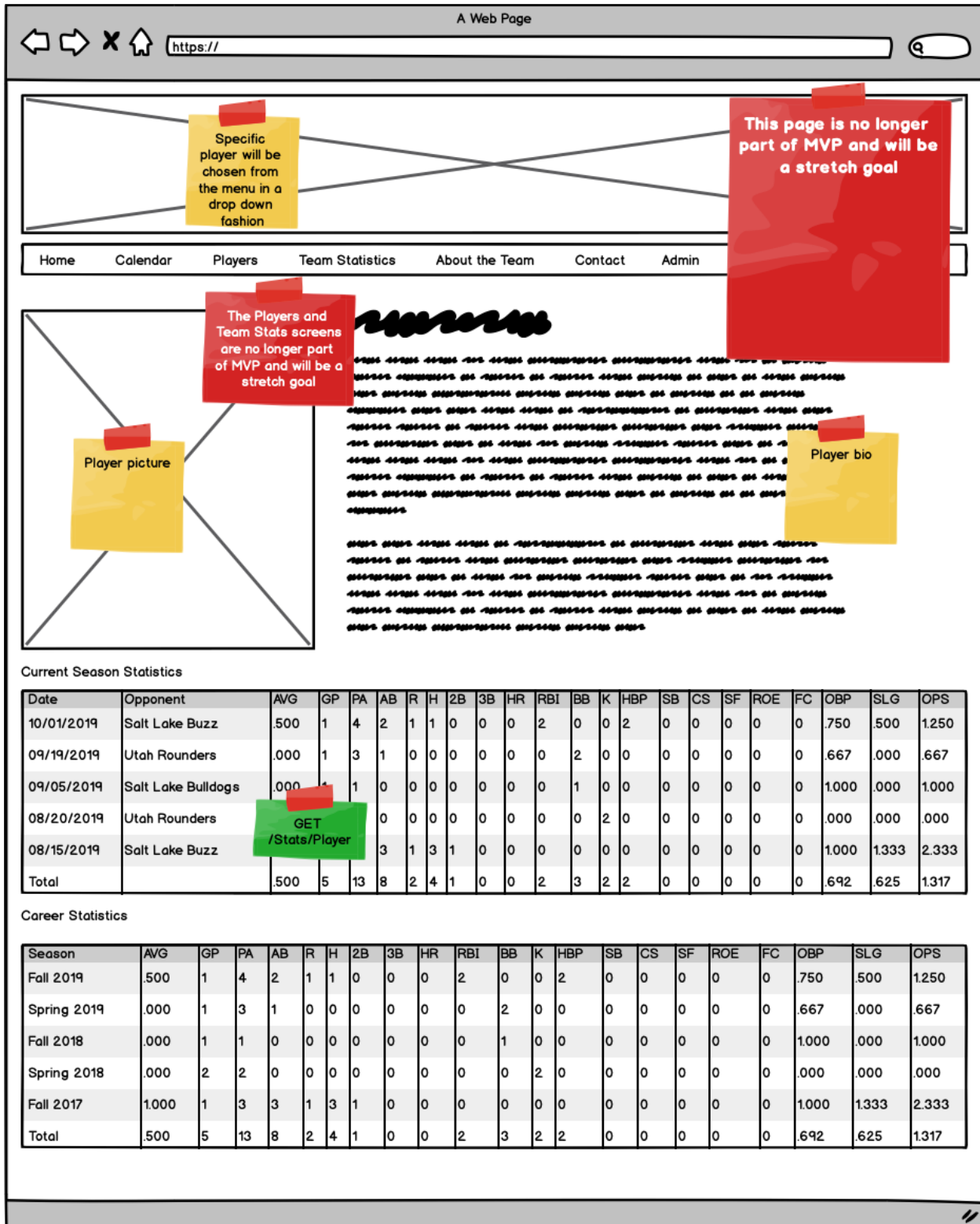
Enter Location

Win or Loss

Cancel

Save Changes

Stretch



Season	AVG	GP	PA	AB	R	H	2B	3B	HR	RB1	BB	K	HBP	SB	CS	SF	ROE	FC	OBP	SLG	OPS
Fall 2019	.500	1	4	2	1	1	0	0	0	2	0	0	2	0	0	0	0	0	.750	.500	1.250
Spring 2019	.000	1	3	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	.667	.000	.667
Fall 2018	.000	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1.000	.000	1.000
Spring 2018	.000	2	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	.000	.000	.000
Fall 2017	1.000	1	3	3	1	3	1	0	0	0	0	0	0	0	0	0	0	0	1.000	1.333	2.333
Total	.500	5	13	8	2	4	1	0	0	2	3	2	2	0	0	0	0	0	.692	.625	1.317

A Web Page

https://

announcementCalendar UpdateStatisticsLog Out

This page is no longer part of MVP and will be a stretch goal

from the game dr
that is displayed

Updating Stats will no longer be part of MVP and will be a stretch Goal

POST /Auth/Logout

+

⦿

⊘

Cancel

✓

Save Changes

Name	GP	R	1B	2B	3B	HR	RBI	BB	K	HBP	SB	CS	SF	ROE	FC
Marty Manager	<input type="checkbox"/>	1	1	0	0	0	2								
Paul Player	<input type="checkbox"/>	0	0		0	0	0								
Perry Player	<input type="checkbox"/>	0				0	0								
Percy Player	<input type="checkbox"/>	0	0	0	0	0	0								
Peter Player	<input type="checkbox"/>	1	2	1	0	0	0								

To update, a manager will select the relevant table, and then update the fields within it.

GP indicates the game was played. And the following fields are text inputs that indicate the stats that match the score book.

These fields then are used to calculate additional statistics within the database.

Cancel refreshes the page with no game selected and no input saved.

Save refreshes the page with the inputs added and no game selected.