How to Use this Template
1. Create a new document, and copy and paste the text from this template into your new document [Select All → Copy → Paste into new document]
2. Name your document file: "**Capstone_Stage1**"
3. Replace the text in green

GitHub Username: thefinitemonkey

NFL Crimewatch

Description

NFL Crimewatch is an entertainment app that lets you look at the crime stats for your favorite team since 2000! With daily updates to data, NFL Crimewatch allows for checking up on stats by team, player position, or the specific type of criminal offense. You can even drill in to a specific player and see everything they've been up to with the police.

Intended User

NFL fans with a sense of humor about their players

Features

- Set your favorite team
- Set the time frame you want to watch (past week, past month, past year, past five years, all the way to 2000)
- View lists of criminal activity updated daily by team, position, and type of offense
- Pulls data from the nflarrest.com api
- Put a widget on your home screen to see how long its been since someone on your favorite team brought them some public scorn

User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Google Drawings, www.ninjamock.com, Paper by 53, Photoshop or Balsamiq.

Designs for all screens shows will be modified to display as grids or other layouts appropriate to Material Design standards in landscape mode and on larger form-factors such as tablets.

Screen 1 (Widget)
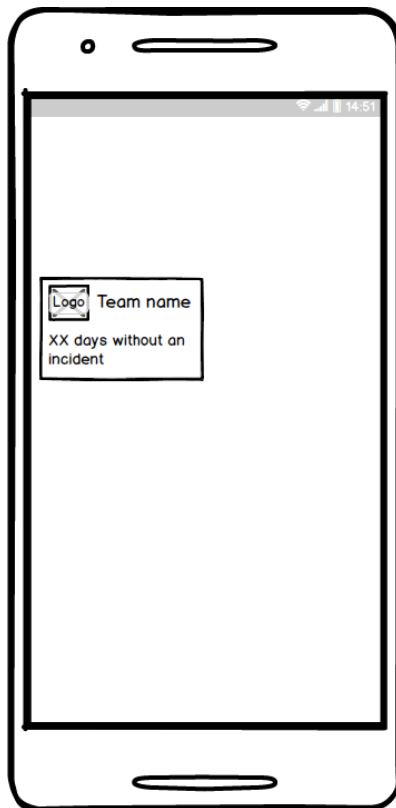
The widget displays the team name and logo for the user's favorite team, along with the number of days since the last legal incident for one of their players.

Screen 2 (Main screen - Teams)
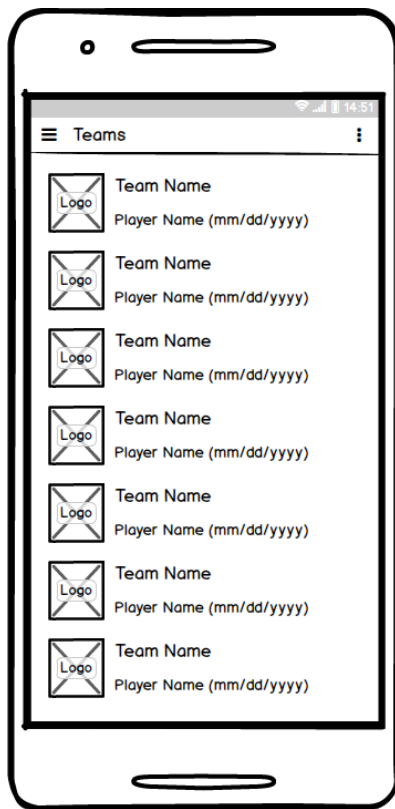
The main screen displays one of three states. The default is a list of the NFL teams. Each item in the list displays the team logo, name, conference and division, and the name of date of the last player to commit an offense. Clicking an item in the list navigates to the details of the crimes committed by that team in the selected timeframe.

Screen 3 (Drawer)
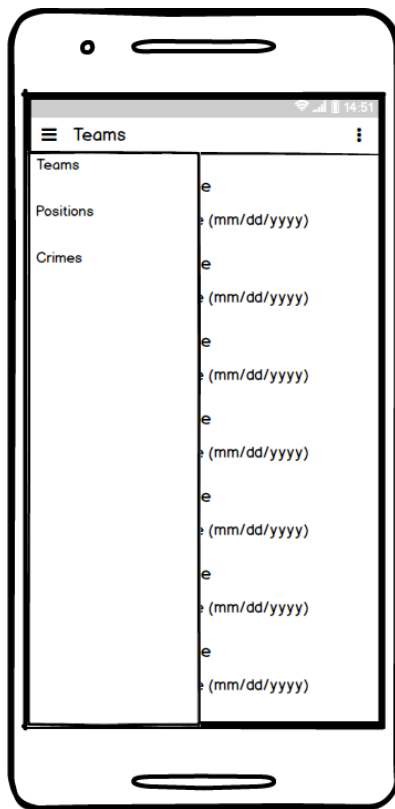
The drawer is opened up over the main screen by clicking on the hamburger menu in the top left corner. Making a selection from the drawer updates the type of list displayed on the main screen.

Screen 4 (Settings)
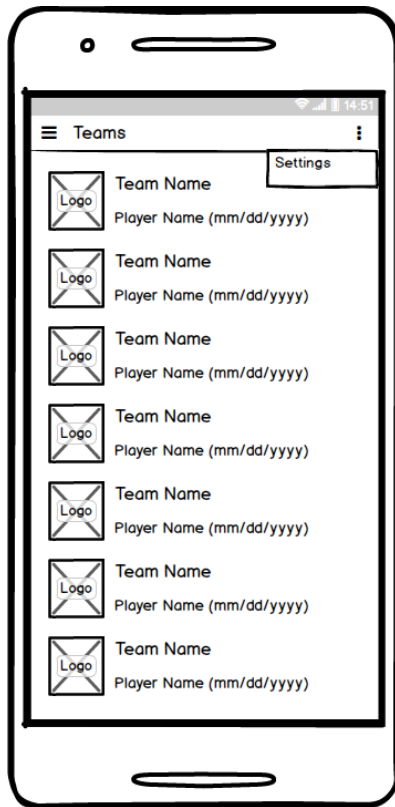
Clicking the menu icon in the top left of the screen opens the selection for the Settings menu. Clicking this menu item opens the settings screen where the user can select their preferences for favorite team and time frame for displays (past week, past month, past year, past five years, everything back to 2000).

Screen 5 (Main screen - Positions)
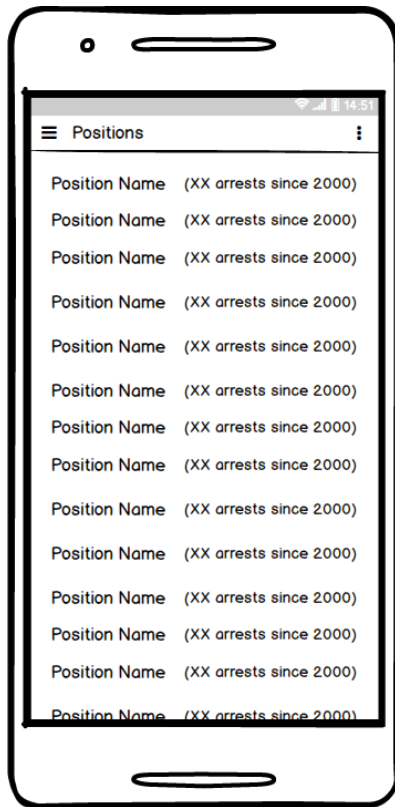
When the user selects to see the main screen as a list of positions, all the player positions with the number of offenses committed in the selected timeframe are presented. Clicking an item in the list navigates to a display of the crimes committed by players at that position during the selected timeframe.

Screen 6 (Main screen - Crimes)

This is the display for the main screen when viewed as a list of the types of crimes committed during the timeframe. Clicking an item from this list navigates to a display of the specifics for each of the offenses of this type.

Screen 7 (Sourced Offenses)
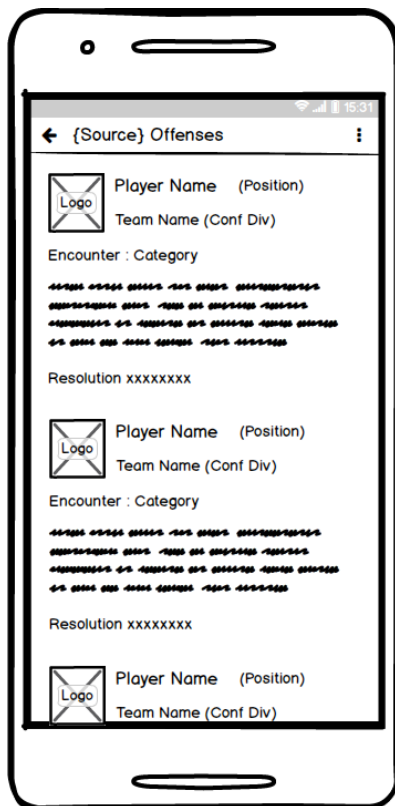
Clicking an item in and of the lists on the main screen navigates to this screen. The {Source} portion of the title is replaced appropriately based on the list the user navigated from (Team, Position, Crime Type). Each item on this screen displays the team logo, the player name and position, the team name and division, the type of offense, details, and resolution. Clicking an item in this list will navigate to a list of all offenses committed by the selected player during the given time period.

Screen 8 (Player Stats)
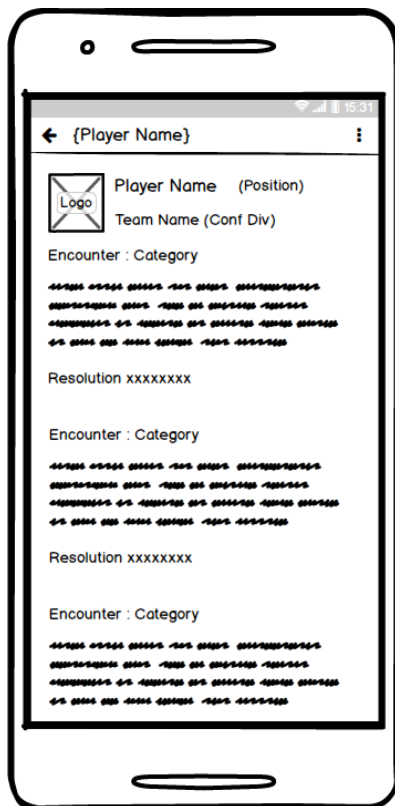
This screen displays the team logo, player name and position, team name and position, and for each offense during the time period specified the
- Type of offense
- Offense details
- Resolution

Key Considerations

How will your app handle data persistence?

Data will be retained using a SQLite database, with display and persistence managed with Room.

Describe any edge or corner cases in the UX.

None known at this time

Describe any libraries you'll be using and share your reasoning for including them.

- ButterKnife for view bindings.
- Okhttp for loading data from the nflarrests service
- Moshi for parsing the JSON responses into POJOs

Describe how you will implement Google Play Services or other external services.

- The Location service will be used to determine the device location when the app is installed. This location will then be used in a comparison against all the NFL team locations to determine a default selection for favorite team.
- AdMob will be used to display advertising on the bottom of each screen within the free version of the app

Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and break them down into tangible technical tasks that you can complete one at a time until you have a finished app.

Task 1: Project Setup

You may want to list the subtasks. For example:
- Configure libraries
- Configure build configurations for free and paid variants
- Configure folders for Java files as UI, Utils, Data, and Network
- Configure project folders for landscape and tablet layouts

Task 2: Implement UI for Each Activity and Fragment

List the subtasks. For example:
- Build UI for MainActivity
- Build UI for Teams fragment
- Build UI for Positions fragment
- Build UI for Crimes fragment
- Build UI for Preferences
- Build UI for OffensesActivity
- Build UI for Offense fragment
- Build UI for PlayerActivity

Task 3: Data

- Implement REST services from nflarrests.com for
  - Top crimes

- o Arrest details for crime
- o Top teams
- o Arrest details for team
- o Top positions
- o Arrest details for position
- o Arrest details for player
- o Most recent offense for each NFL team
- Implement SQLite database and tables
  - o Default data for team info including stadium locations with latlon coordinates
  - o Tables to store results from all REST calls for offline viewing
- Implement calculation to determine distance between a given point and each stadium to determine closest team

Task 4: Services

- Implement Location services to determine device location and default favorite team on initial app startup
- Implement AdMob to display ads in free version of app

Task 5: Signing

- Generate key
- Sign app
- Submit for review

Submission Instructions
- After you've completed all the sections, download this document as a PDF [File → Download as PDF]
  - o Make sure the PDF is named "**Capstone_Stage1.pdf**"
- Submit the PDF as a zip or in a GitHub project repo using the project submission portal

If using GitHub:
- Create a new GitHub repo for the capstone. Name it "**Capstone Project**"
- Add this document to your repo. Make sure it's named "**Capstone_Stage1.pdf**"