F1 Race Companion App

UX Case Study

Project Overview

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Summary:
A streamlined mobile companion app for F1 fans that provides real-time race data, tire strategy visualization, and driver details without ads or paywalls. Designed to work as a second-screen experience while watching races or as a primary way to follow races for fans without streaming subscriptions.

The Problem

F1 fans want to follow live races closely and understand complex race strategies, but existing apps present several pain points:

- Cluttered interfaces with excessive information make it hard to find key data quickly
- Constant pop-up ads disrupt the viewing experience during critical race moments
- Paywalls prevent fans without F1TV subscriptions from accessing real-time data
- Tire strategy information is scattered and difficult to visualize at a glance

During races, fans need immediate access to specific information—especially tire strategies and gaps between drivers—without navigating through multiple screens or dealing with interruptions.

User Research

Target Users:

- F1 fans watching races on TV who want a second-screen companion

- Fans without streaming subscriptions who need to follow races in real-time
- New fans learning race strategy and terminology

User Needs:

- See tire strategies at a glance (compounds, age, pit stop timing)
- Track gaps between drivers without scrolling through cluttered data
- Clean, ad-free interface that doesn't disrupt race focus
- Quick access to individual driver statistics
- Visual representation of the race strategy for easier understanding

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Design Process

Information Architecture

I organized the app into three main screens, each serving a specific user need:

1. **Live Race Dashboard** - Primary view showing real-time positions and tire data
2. **Tire Strategy View** - Visual timeline of each driver's pit stops and tire choices
3. **Driver Detail** - Deep dive into individual driver statistics

This structure allows users to get an overview of information quickly and drill down into details when needed.

Key Design Decisions

Dark Theme:
Implemented a dark color scheme (#1A1A1A background) to reduce eye strain during long race viewing sessions and provide better contrast for important information.

Color-Coded Tire System:

- 🔴 Red = Soft compound
- 🟡 Yellow = Medium compound
- ⚪ White = Hard compound

This mirrors F1's official tire color system, making it immediately recognizable to fans.

Visual Tire Timeline:
Instead of listing pit stops as text, I created horizontal timeline bars showing when drivers pitted

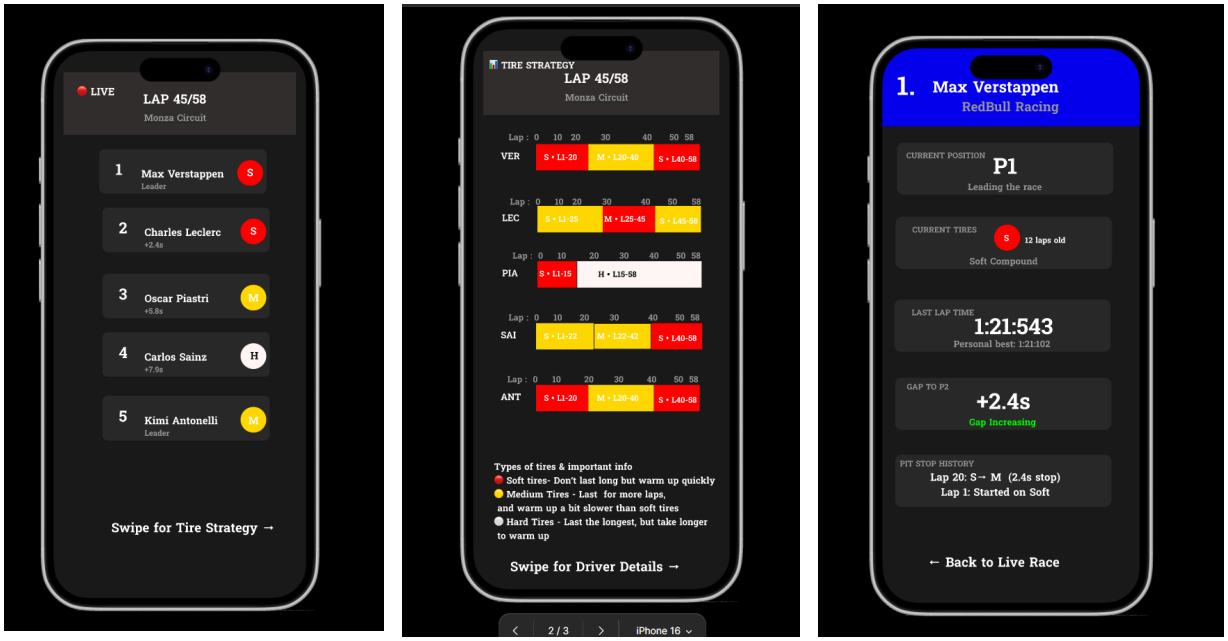
and which compounds they used. This allows users to compare strategies across multiple drivers at once and spot patterns.

Minimal Text, Maximum Information:
Each data point is presented with a clear label, large, readable numbers, and supporting context. For example, tire information shows both the compound and age ("12 laps old") so users understand the full picture.

Final Designs

Screen 1: Live Race Dashboard

The main screen displays:



- Current race status (lap counter, circuit name)
- Scrollable list of driver positions
- Real-time gaps to the leader
- Current tire compound for each driver (color-coded circles)
- Navigation hint to swipe for tire strategy

Design Rationale:
This screen prioritizes the information fans check most frequently during a race. The tire

indicators next to each driver let users instantly see who's on which compound without opening additional screens.

Screen 2: Tire Strategy View

Features include:

- Visual timeline for each driver showing all pit stops
- Color-coded blocks representing different tire stints
- Lap range indicators (L1-20, L20-40, etc.)
- Educational information about tire compounds
- Lap scale markers for easy reading

Design Rationale:
The visual timeline makes complex strategy easy to understand. Users can immediately see that Verstappen started on softs, switched to mediums, then back to softs, while Piastri is trying a one-stop strategy on hard tires. This would take multiple paragraphs to explain in text.

Screen 3: Driver Detail

Displays comprehensive stats including:

- Driver number and team (with team color header)
- Current position and standing
- Current tire compound and age
- Last lap time with personal best comparison
- Gap to car ahead/behind with trend indicator
- Pit stop history

Design Rationale:
When users tap a driver, they want ALL relevant information in one place. The card-based layout organizes different data types clearly, and the large driver number provides strong visual identity.

What I Learned

Visual Data Representation Matters:
The tire strategy timeline was the most challenging element to design, but it became the app's strongest feature. I learned that sometimes showing data visually is exponentially more effective than listing it as text.

Design for Context:
F1 races are fast-paced and exciting. Users don't have time to read paragraphs or navigate complex menus. Every design decision prioritized speed and clarity—large touch targets, minimal taps, instant information.

Color as a Communication Tool:
Using F1's official tire colors made the app immediately intuitive to existing fans while also serving as a learning tool for newcomers. Consistency with established conventions reduces cognitive load.

Solving Real Problems:
This project started from my own frustration with existing F1 apps. Designing solutions for problems I personally experienced made the process more engaging and helped me stay focused on actual user needs rather than adding unnecessary features.

Next Steps & Improvements

If I were to develop this further, I would:

- Add live timing data with sector splits
- Include weather conditions and track temperature
- Create notifications for key race events (pit stops, retirements, safety cars)
- Add historical race data and driver/team statistics
- Implement dark/light mode toggle
- Design tablet version with split-screen capabilities

Conclusion

The F1 Race Companion App demonstrates how thoughtful UX design can solve real user pain points. By focusing on visual clarity, information hierarchy, and context-aware design, I created an interface that serves both casual fans and hardcore enthusiasts. This project reinforced the importance of user-centered design and designing solutions that I would personally want to use.

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