7 things to plan, build & ship your own app

Christian Menschel, 25.4.2024

Short intro

Christian Menschel

Published
6 apps

Since 2009
Indie Christian Menschel

2 active apps

SolarDashboard (December 2018)
Groupetto (since June 2021)
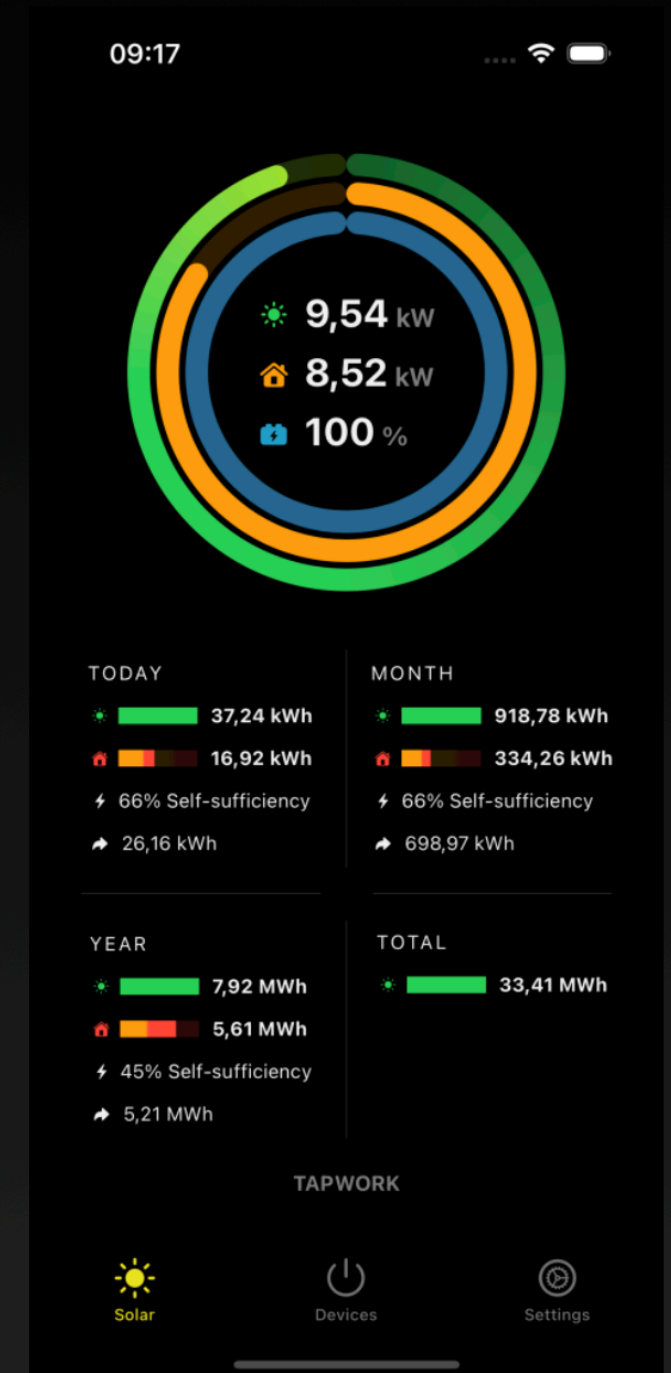
☀⚡ **SolarDashboard**

Charge your EV with green energy

Use excess solar power to charge your electric vehicle or activate HomeKit devices. Save money and reduce your carbon footprint.

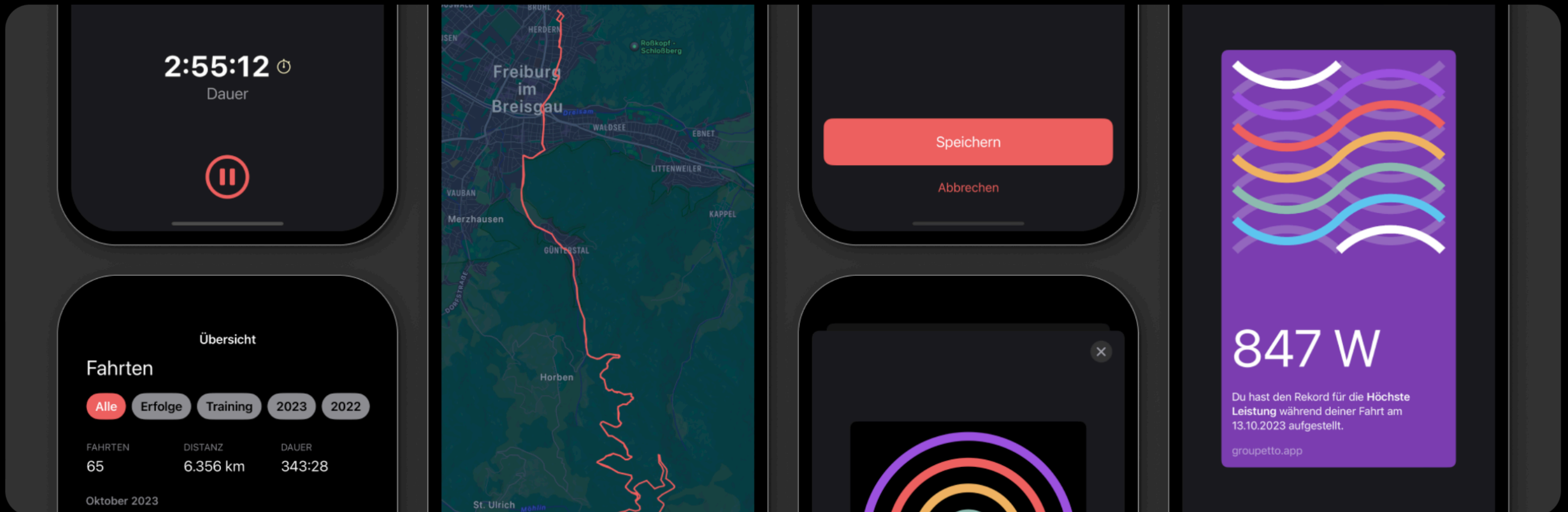Get SolarDashboard as iPhone, iPad or macOS app!

iOS app ↓   **macOS app ↓**

Dein smarter Fahrradcomputer.

Jetzt für dein iPhone herunterladen

Laden im App Store

2:55:12
Dauer

Freiburg im Breisgau

Speichern

Abbrechen

Übersicht

Fahrten

Alle Erfolge Training 2023 2022

FAHRTEN   DISTANZ   DAUER
65   6.356 km   343:28

Oktober 2023

847 W

Du hast den Rekord für die **Höchste Leistung** während deiner Fahrt am 13.10.2023 aufgestellt.

groupetto.app

7 things

- Motivation

- Research

- Concept

- Coding

- Legal

- Tools

- Most mistakes

Motivation

~ 4 mio apps

Why should you build another app?

What's your objective

Hobby vs. professional

- **Playground?**

- **Want to earn money?**

Playground

- Experiments

- Break things fast

- Put new knowledge into practice

- Try things out: New architectures, Swift Updates…

- Don't care about Unit Tests or good citizen style

Earn money

- Build rock solid code instead of experiments

- Start without payment first

- Start lean and iterate

- Categorize features in Growth, Engagement and Monetization

- Focus on three main features that fall into those groups

- Interview users & make support

Research

Skip Research & Concept for playgrounds apps

What problem are you solving that people would pay for?

Or just build the better app?

Research

- Market analysis: Your place in the app ecosystem

- Interview a potential user group

- What are user needs?

- Learn form others (UX/UI design, patterns, content) instead of starting from scratch

- Technology / Architecture

- Backend needed?

Concept

No Xcode

Describe your idea

Describe your idea

- Write down your idea

- Find some key words that describe your app

- Describe the idea in few sentences

- Prepare some kind of elevator pitch for yourself

- Write yourself a press release about your app

Apple Design Resources

Apple Design Resources

Design apps quickly and accurately by using Sketch, Photoshop, XD templates, guides, and other resources.

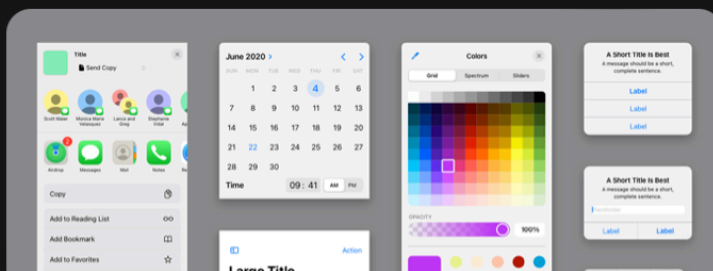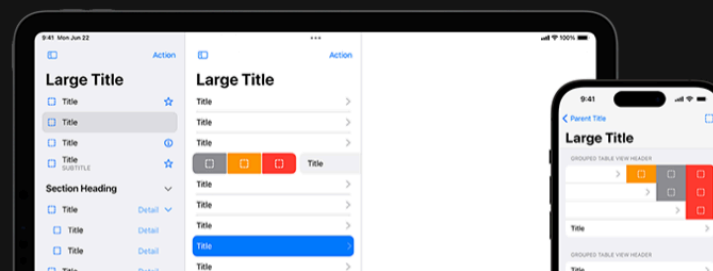| iOS & iPadOS	macOS	tvOS	watchOS	visionOS	Technologies	Fonts	SF Symbols	Product Bezels

iOS and iPadOS

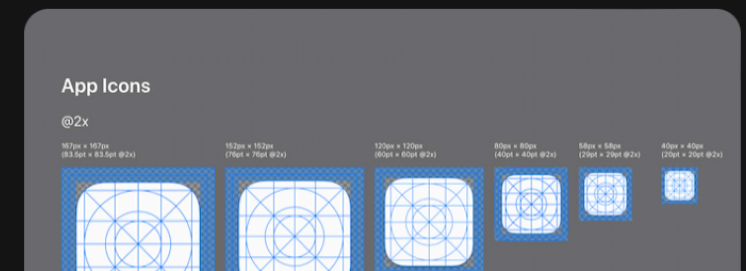## iOS 17 and iPadOS 17

iOS 16 and iPadOS 16
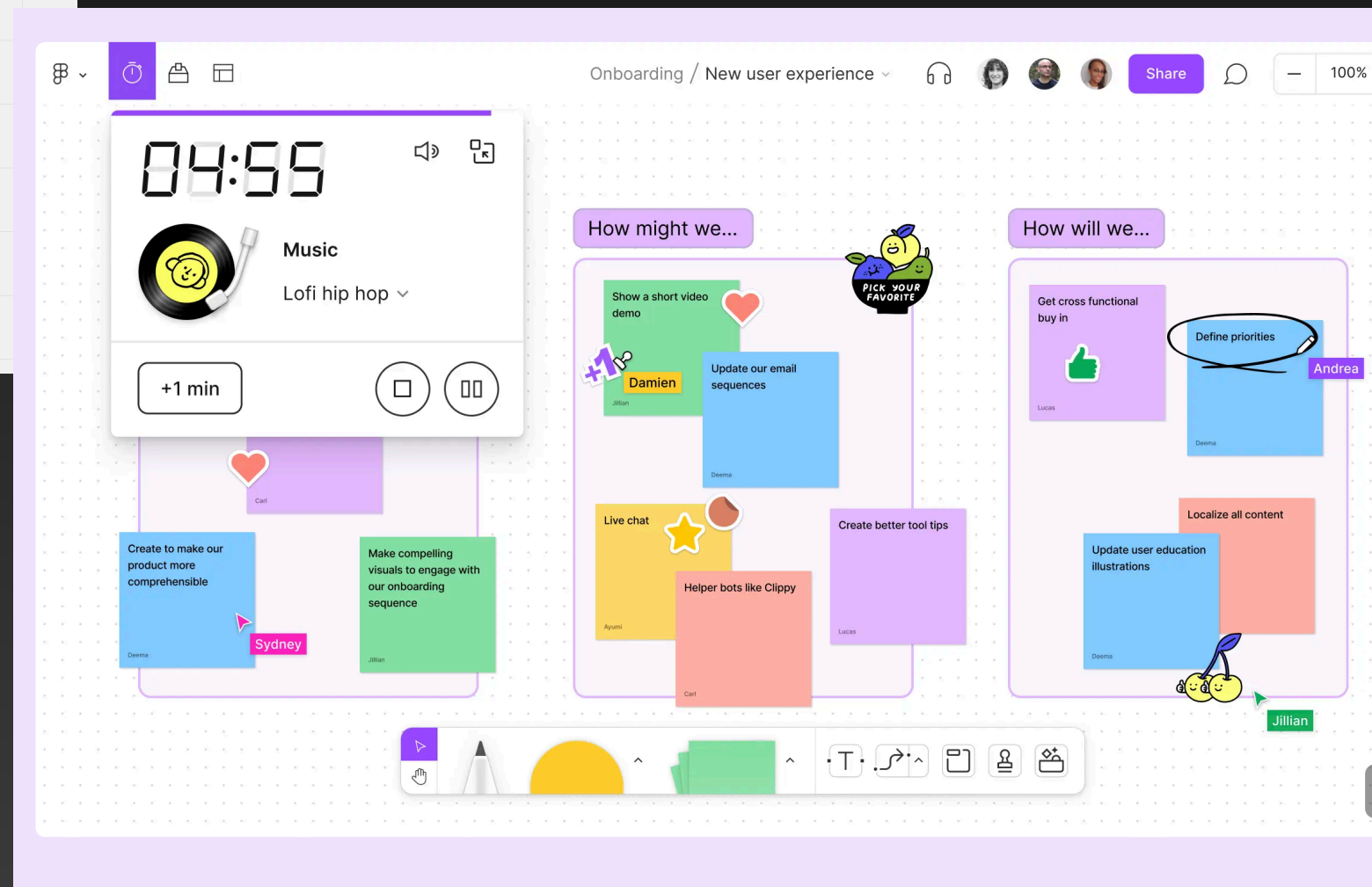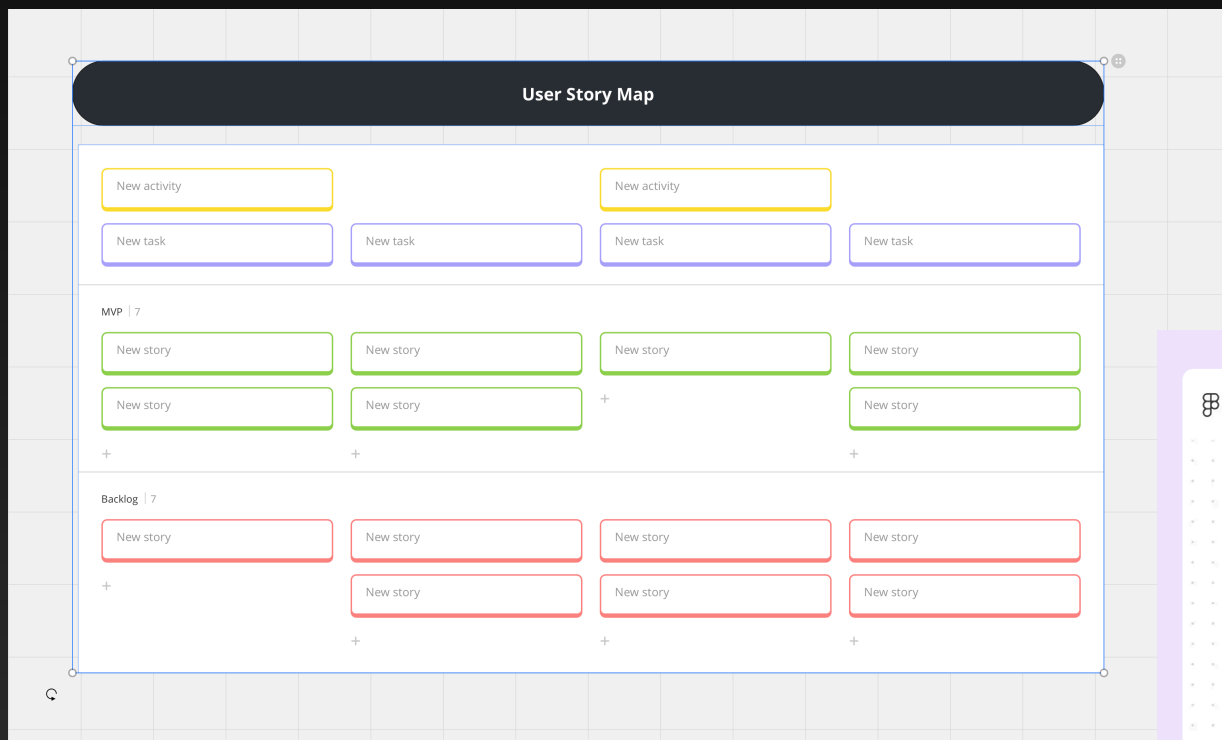
Sketch Library

Design Templates

Production Templates

Apple Design Resources

- Templates for Photoshop, Sketch and Figma

- Product Bezels

- Icons / Badges / Logos

- SF Symbols Tool
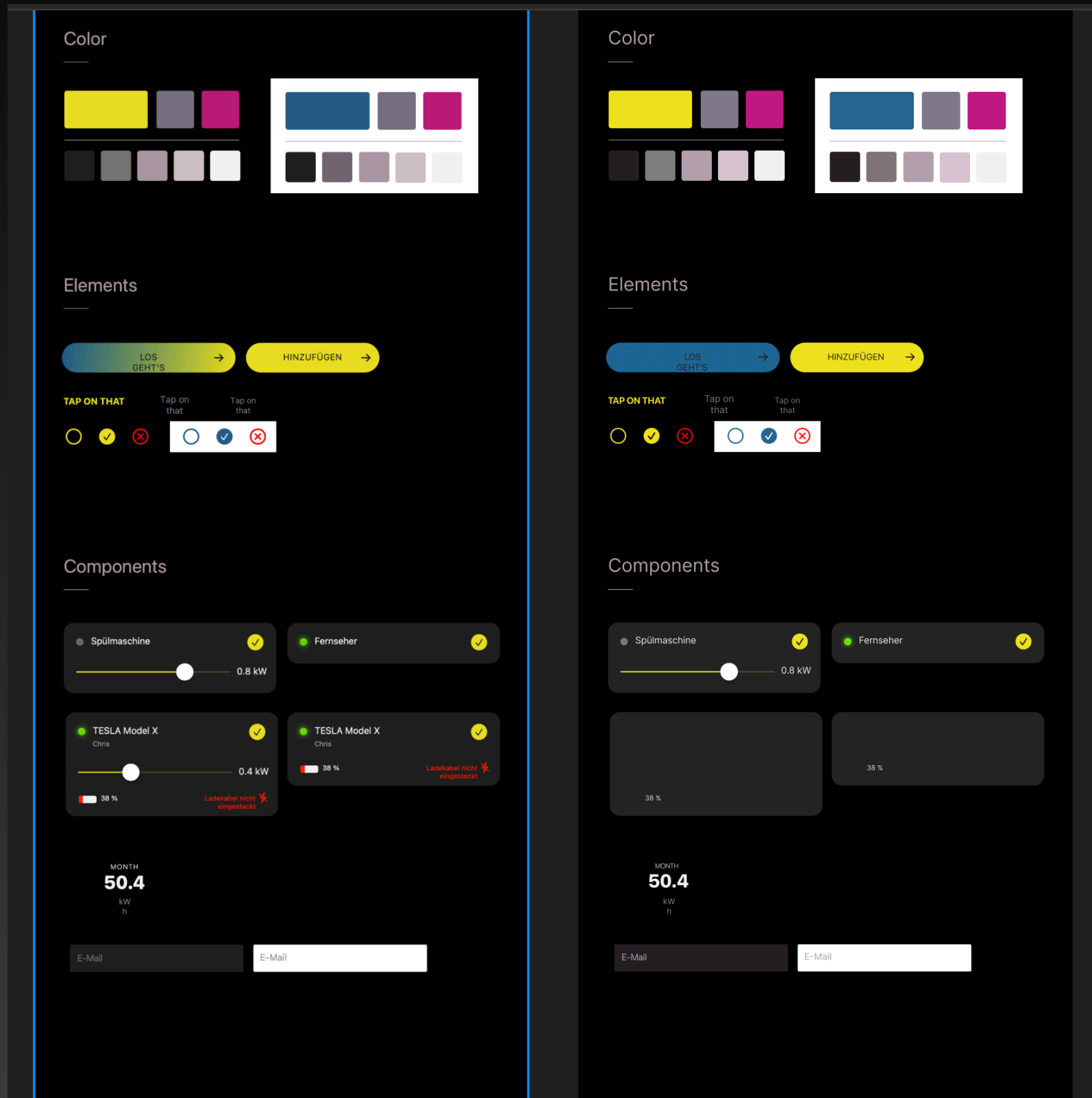
- https://developer.apple.com/design/resources

Figma

FigJam or Miro

Sketch and plan your ideas with digital whiteboards

Figma as UX/UI tool

It's good to have a concept

However, be prepared to adapt to user feedback.

Start lean & iterate fast

Stay laser focused

Check your hypothesis quickly

Check your assumptions about feature acceptance and willingness to buy

Coding

Playground vs. sustainable app

Keep it simple

No full-time job? Prepare to understand code after months.

Coding Playground

- Experiment with code, techniques, architectures

- Use it to learn to new Swift features

- Drop old code fast and break things

- Drop old iOS versions quickly

Coding sustainable

- Consistency

- Clear and precise

- Not too complex

- Stay to the standards - Don't fight the framework!

- Not too much attention to details

- No rewrites

- Don't jump too fast on the newest stuff

You are alone? You want to be fast!

Avoid too much beauty in the code

Unpopular opinion: Don't write complex Unit Tests

or even skip them to be faster & more flexible

Legal

Apple Developer Account for distribution

$ 99 / year

Add legal entity information

Bank account

Tax information

Legal entity
In the App Store

Just indie with your name?
GmbH?
UG?
Limited?

Found a real Corporation

Create a corporation (UG, GmbH, Limited, Inc.) to appear with a favorite name in the App Store, otherwise your personal name is used

D-U-N-S

You must apply for this D-U-N-S (Data Universal Numbering System) in order to appear with your company name!

You also must tell Apple (required by DSA) if your are a Trader **New**

https://developer.apple.com/de/support/D-U-N-S/

Found a small corporation

In Germany, you can set up the "UG" as a legal entity for around EUR 2,000 including EUR 1,000 start-up capital

https://www.lexware.de/wissen/gruendung/ug-gruenden//

Earning money?

Pay taxes when reaching the tax-free allowance in your country

Legal work!

You must have:

Privacy Policy

App Storer Nutrition Labels

Terms of use

Privacy manifest   **New**

Consider consulting an attorney

3rd party services

Using Google Analytics, Firebase Crashlytics?

Be aware of the GDPR and obtain user consent

Avoid external services if you are not sure

Using external Open Source

Please note the licenses

List all open source tools with version & the license in your app

Export of cryptography

No Crypto: ITSAppUsesNonExemptEncryption = NO in the info.plist

You're required to provide documentation if your app contains:

Advanced Encryption Standard (AES)

RSA

Elliptic Curve Cryptography (ECC)

Diffie-Hellman key exchange

Tools

Xcode

Deployment

Crash reports

TestFlight for Beta testing

Fastlane not needed for indie projects

Backend

- You should not use CloudKit -> does not scale well

- Backend as a Service

  - Contentful

  - Hasura

  - Firebase

  - Realm

Firebase

Remote Config

Functions

Respect privacy concerns

Analytics

Understand and measure your features

Google Firebase Analytics

Telemetry Deck

Matomo

Respect privacy concerns

Crashreport

Xcode vs Firebase Crashlytics

Xcode brings less reports than Firebase Crashlytics

Higher approval rate for Firebase?

Checklist

Checklist

✓ Build a real app. Nonsense or Web Container will be rejected

✓ Enough time & Endurance

✓ Apple Dev Account

✓ Add legal entities (address, tax information, banking, and more) in App Store Connect

✓ Website with legal & privacy policy

✓ App Privacy Nutritions Label

✓ Term of Use (mostly custom)

✓ App Meta data: App Icon, Screenshots & Promotion Text

✓ Export compliance information

✓ Privacy Manifest   **New**

Most mistakes

Endurance for last 20%

All things apart from coding

Design, Website, Legal, Marketing

Poor work structure, many things in parallel

Test in real world scenarios

No clear objective and loss of focus

Too much attention to detail

No feedback or ignoring it

Too many features

App rejections

- Too many features at the beginning

- Short time planned for app review

- Rejection loop with Apple

- Neat picky review for in app purchases

  - i.e. I had to paste my custom Terms of Use in App Store Connect (very hidden)

- Expect arbitrary app rejections from Apple