INGREDISCAN

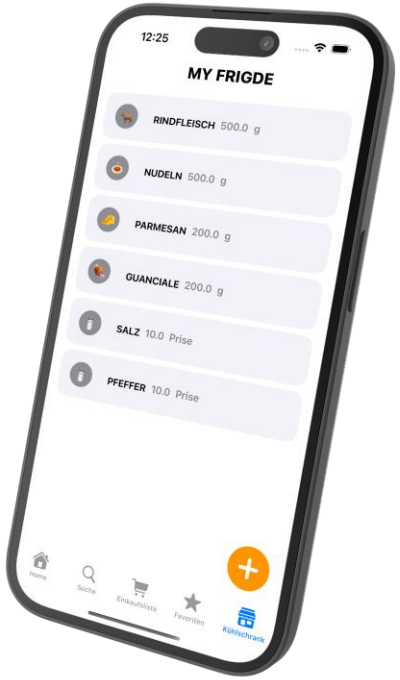
Deine smarte Lupe für Lebensmittel.

Jan Keller, Fynn Schotten (Gruppe 4)

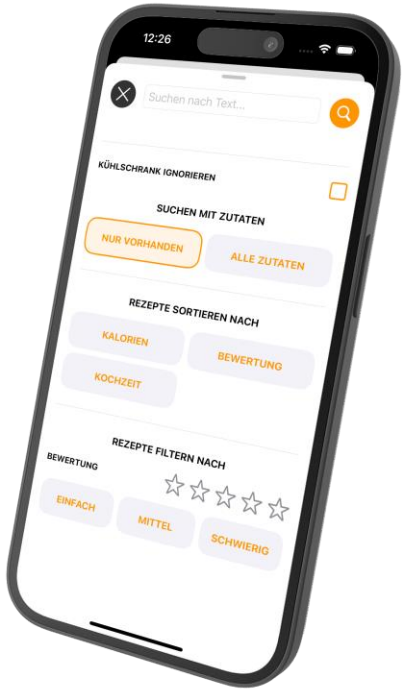
IDEE

Was soll ich heute kochen?

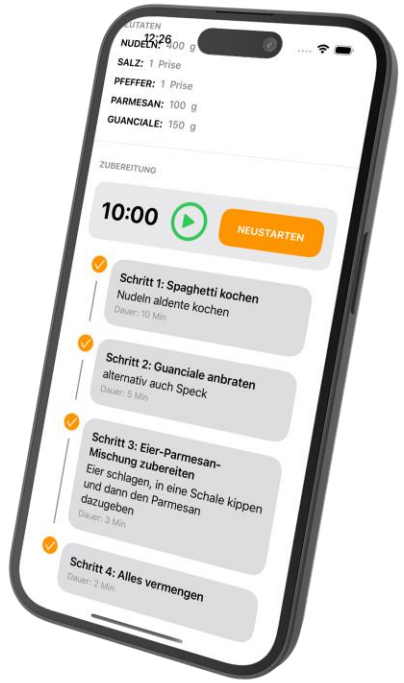
LÖSUNG: INGREDISCAN



Kühlschrank



Suchen



Kochen

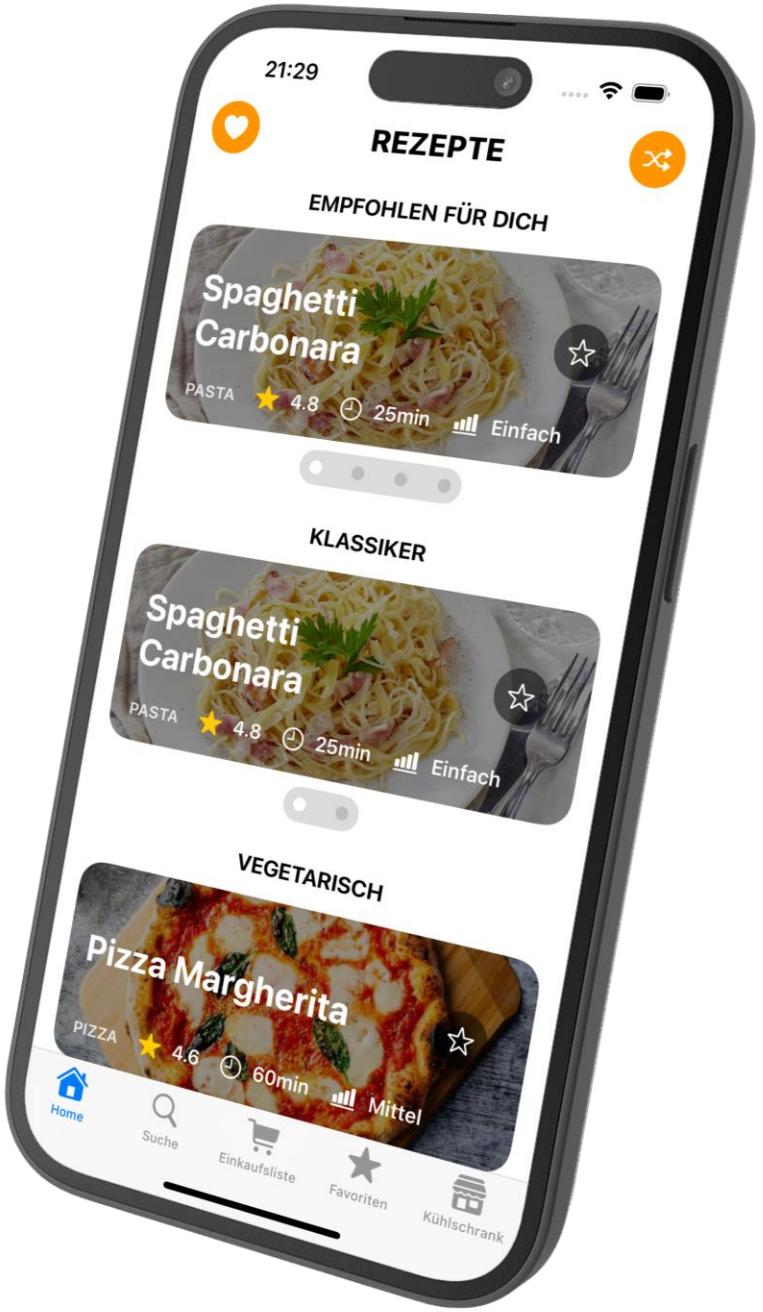
DEMO

IngrediScan

ÜBERSICHT

- Inspiration für den Nutzer
- Durch die Rezepte stöbern
- Rezepte in ihren Kategorien

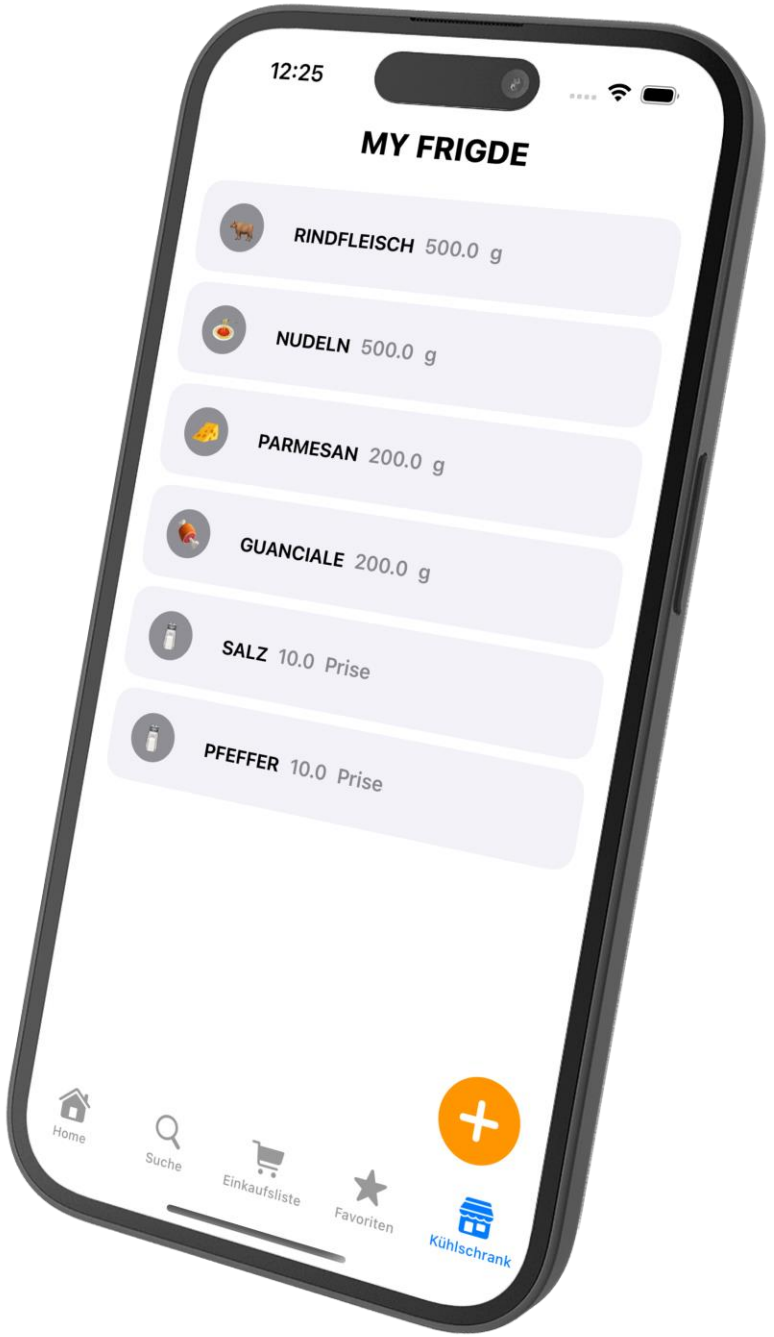
```swift
func loadRecipes() async {
    self.recipes = await DatabaseService.shared.fetchRecipes()
}

func loadTags() async {
    self.tags = await DatabaseService.shared.fetchTags()
}

func loadCategories() async {
    self.categories = await DatabaseService.shared.fetchCategories()
}

func loadIngredients() async {
    self.ingredients = await DatabaseService.shared.fetchIngredients()
}

func loadFavorites() {
    favoriteIDs = UserDefaults.standard.array(forKey: favoritesKey) as? [Int] ?? []
}
```



VIRTUELLER KÜHLSCHRANK

- Kühlschrank in digitaler Form
- Einfache Pflege
- Datengrundlage

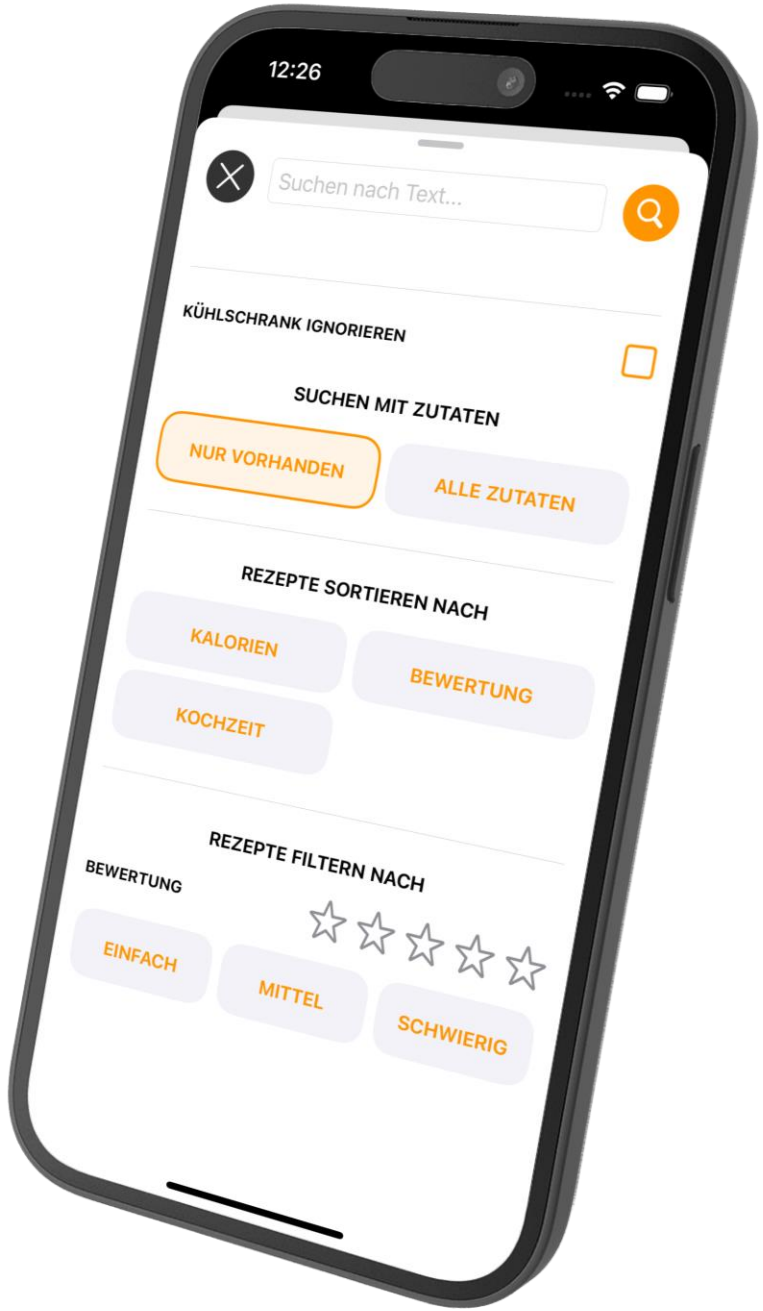
```swift
class FridgeViewModel: ObservableObject {
    @Published var items: [FridgeItem] = []

    private let itemsKey = "fridgeIngredientsKeys"

    init() {
        loadItems()
    }

    func addItem(_ item: FridgeItem) {
        if !items.contains(where: { $0.ingredientId == item.ingredientId }) {
            items.append(item)
        } else {
            modifyItem(item)
        }
        saveItems()
    }
```



SUCHE

- Rezepte sortieren und filtern
- Zugeschnittenes Ergebnis auf den Nutzer
- Viele Anwendungen

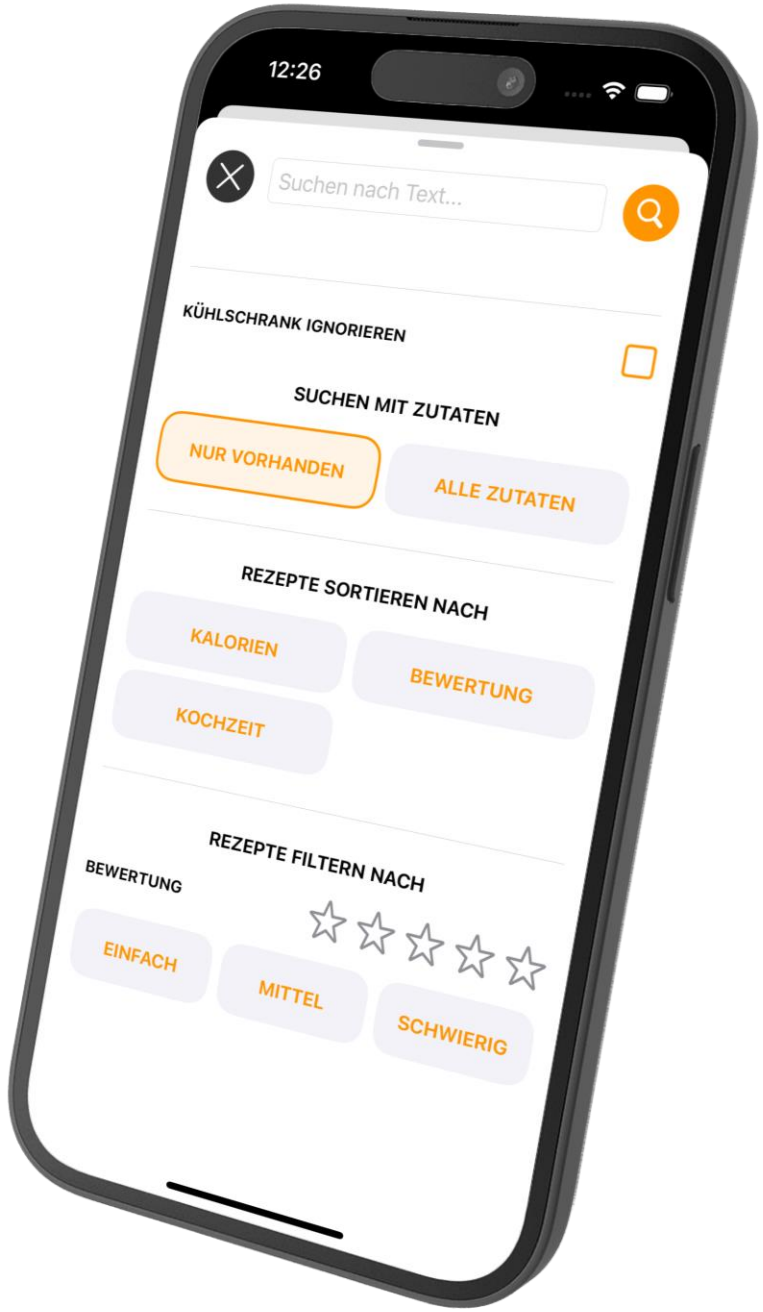
```
        //sort the result
        let sortByRating = selectedSortCategories.contains("Bewertung") ? 1 : 0
        let sortByCalories = selectedSortCategories.contains("Kalorien") ? 1 : 0
        let sortByDuration = selectedSortCategories.contains("Kochzeit") ? 1 : 0

        searchResult = searchResult.sorted {
            let rating1 = ($0.rating) * Float(sortByRating) * 200
            let calories1 = Float($0.calories) * Float(sortByCalories)
            let duration1 = Float($0.duration) * Float(sortByDuration) * 10
            let score1 = rating1 - calories1 - duration1

            let rating2 = ($1.rating) * Float(sortByRating) * 200
            let calories2 = Float($1.calories) * Float(sortByCalories)
            let duration2 = Float($1.duration) * Float(sortByDuration) * 10
            let score2 = rating2 - calories2 - duration2

            return score1 > score2
        }
```



KOCHEN

- Timer in der App
- Übersicht beim Kochen
- Nichts vergessen

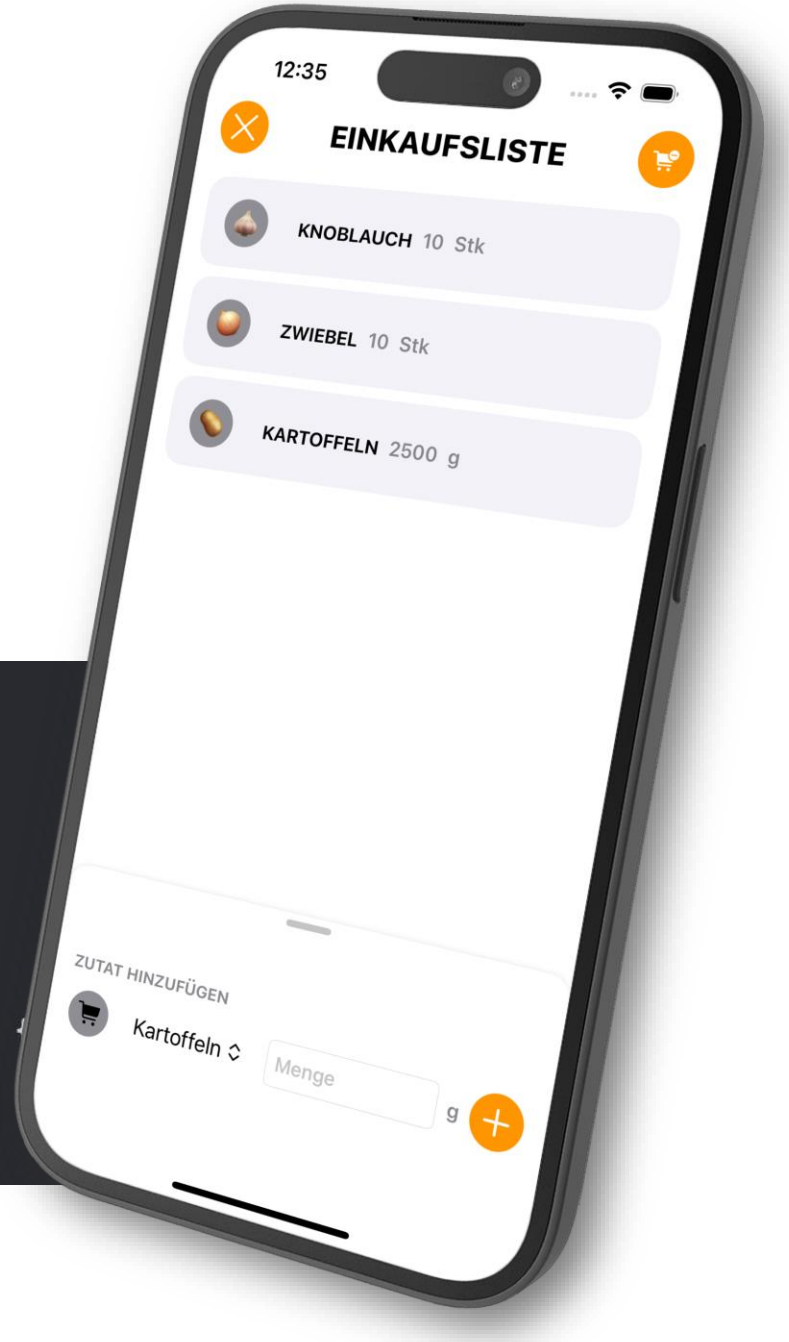
```swift
class TimerViewModel: ObservableObject {

    init(initialDuration: TimeInterval = 10) {
        totalDuration = initialDuration
        remainingTime = initialDuration

        self.timer = AdjustableTimer(duration: initialDuration, onTick: { [weak self] timeLeft in
            DispatchQueue.main.async {
                self?.remainingTime = timeLeft
            }
        }, onComplete: { [weak self] in
            DispatchQueue.main.async {
                self?.isRunning = false
                VibrationService.shared.vibrateForSeconds(5)
            }
        })
    }

    func start() {
        timer?.start()
        isRunning = true
```



EINKAUFSLISTE

- Intuitiv
- Übersichtlich
- User Defaults für Persistenz

```swift
private func saveItems() {
    if let data = try? JSONEncoder().encode(items) {
        UserDefaults.standard.set(data, forKey: itemsKey)
    }
}

private func loadItems() {
    if let data = UserDefaults.standard.data(forKey: itemsKey),
       let decoded = try? JSONDecoder().decode([ShoppingItem].self, from: data) {
        items = decoded
    }
}
```



AUFTEILUNG

Beide

- Datenbank
- MockUps

Jan

- Rezeptsuche
- Virtueller Kühlschrank
- UserDefaults (Kühlschrank)

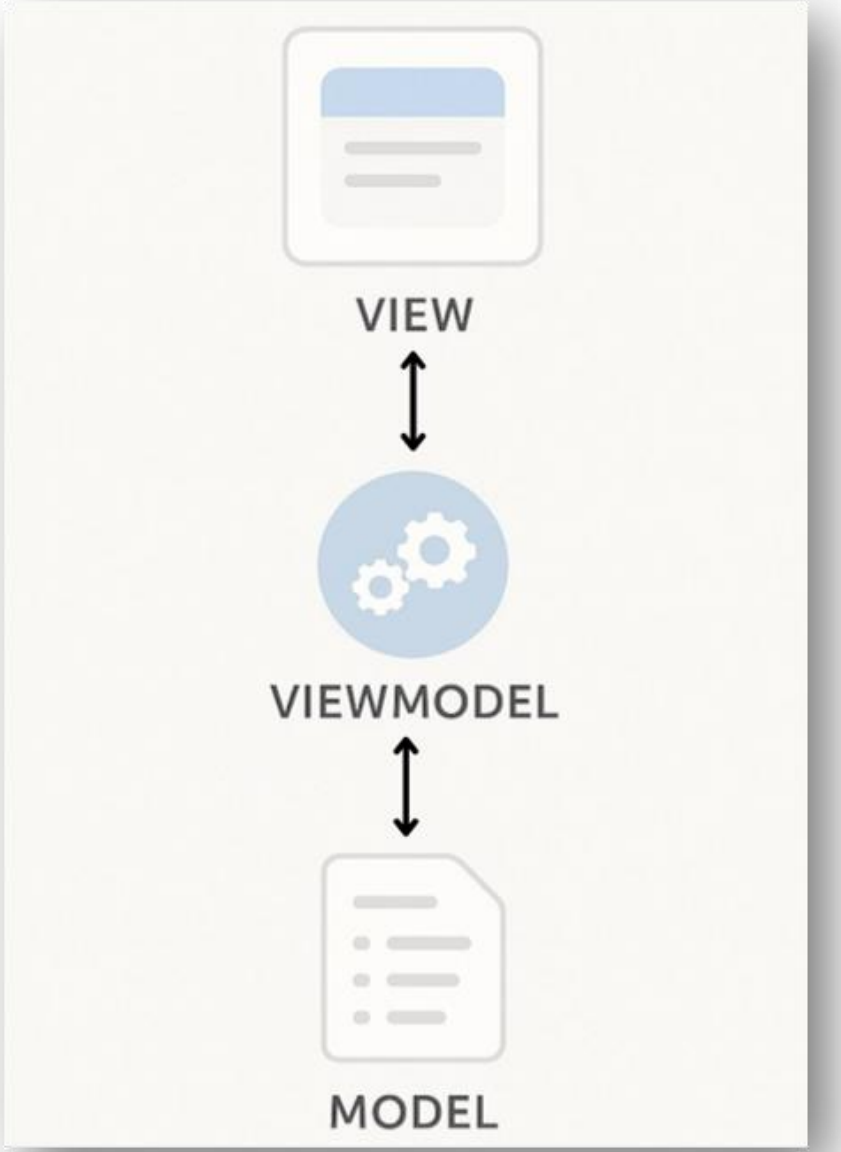
Fynn

- Rezeptübersicht
- Kochfunktion
- UserDefaults (Favoriten, Einkaufsliste)

ARCHITEKTUR: MVVM

Trennung von UI, Logik & Daten

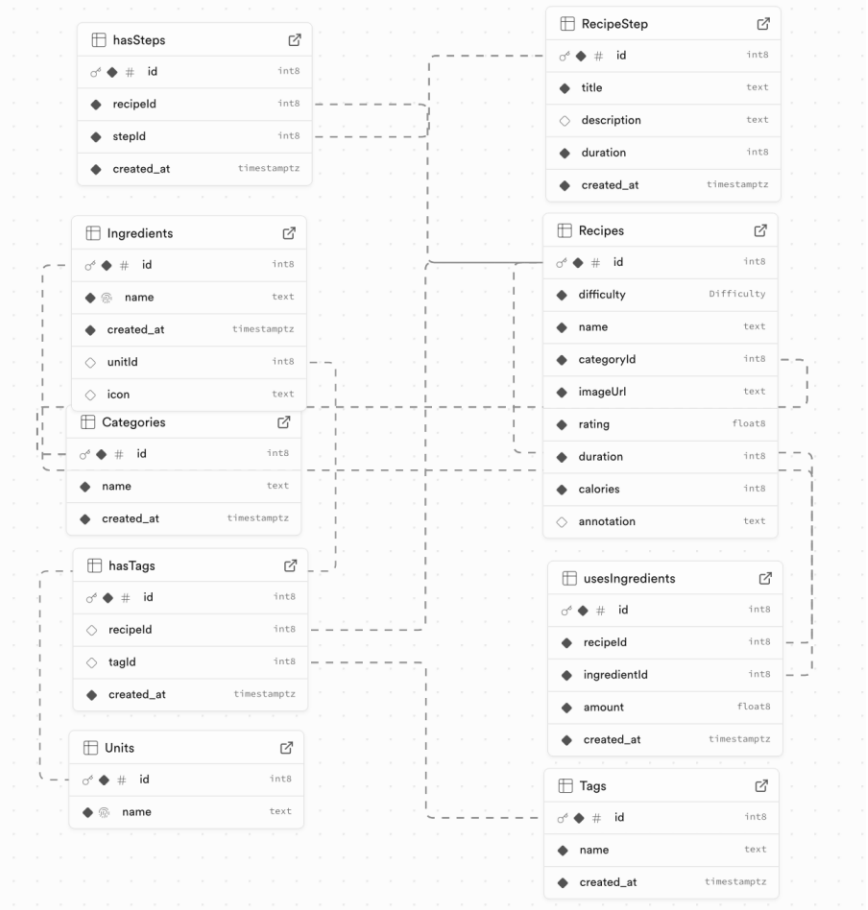
- **Model** repräsentiert Daten
- **View** Darstellung der UI
- **ViewModel** Businesslogik & Vermittler



ARCHITEKTUR: MODEL

Supabase

UserDefaults



ARCHITEKTUR: VIEW-MODEL

Business Logik

Dependency Injection

Bindeglied

Kommunikation mit Services

ARCHITEKTUR: VIEW

- Komponenten
- Gekapselt
- Kompakt
- Wiederverwendbar

```
fileprivate struct CardBackground: View {
    @Binding var recipe: Recipe
    @State var isLoaded: Bool = false

    var body: some View {
        WebImage(url: URL(string: self.recipe.imageUrl)) { image in
            image
                .resizable()
                .scaledToFit()
                .aspectRatio(contentMode: .fill)
                .frame(height: 150)
                .clipped()
                .overlay {
                    RoundedRectangle(cornerRadius: 16)
                        .foregroundStyle(.black.opacity(0.4))
                }
        } placeholder: {
            CardImagePlaceholder()
        }
        .indicator(.activity)
        .transition(.fade(duration: 0.5))
    }
}
```

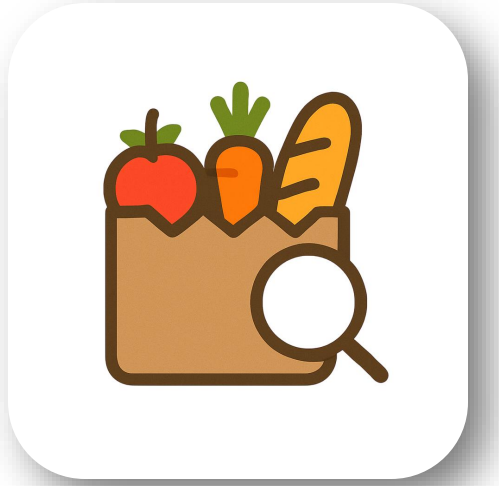
```
struct RecipeCard: View {
    @State var recipe: Recipe
    @State var detailedView: Bool = false

    var body: some View {
        ZStack(alignment: .trailing) {

            Button {
                detailedView.toggle()
            } label: {
                ZStack(alignment: .leading) {
                    CardBackground(recipe: $recipe)
                    CardText(recipe: $recipe)
                        .padding(.leading)
                }
            }
            .cornerRadius(20)
            .fullScreenCover(isPresented: $detailedView) {
                RecipeDetailView(recipe: self.$recipe)
            }
        }
        .padding()
    }
}
```

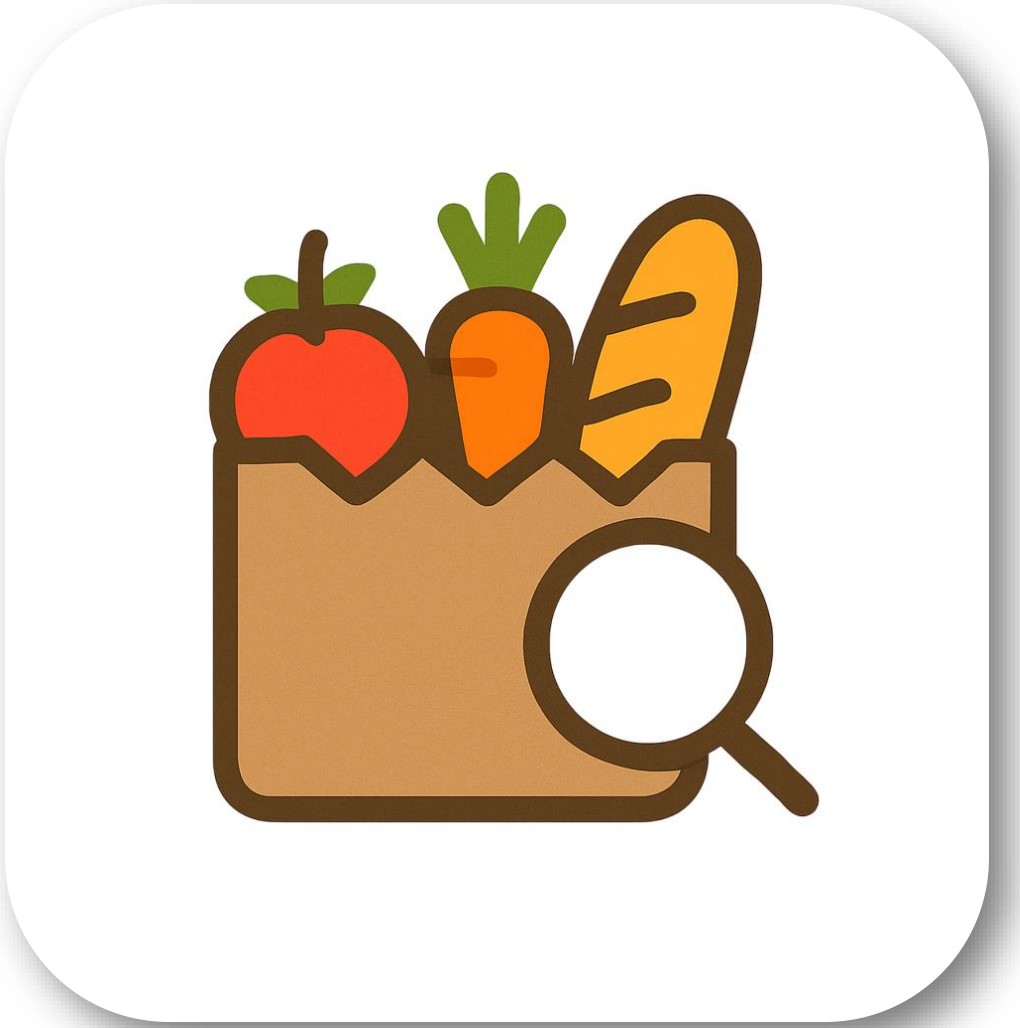
LEARNING

- Simulator ist nur ein Simulator
- SwiftUI sehr mächtig „Out of the Box“
- Viel Code im Internet ist veraltet
- Schnelle visuelle Entwürfe -> Details zeitaufwendig
- Merge Konflikte in anderer IDE resolven

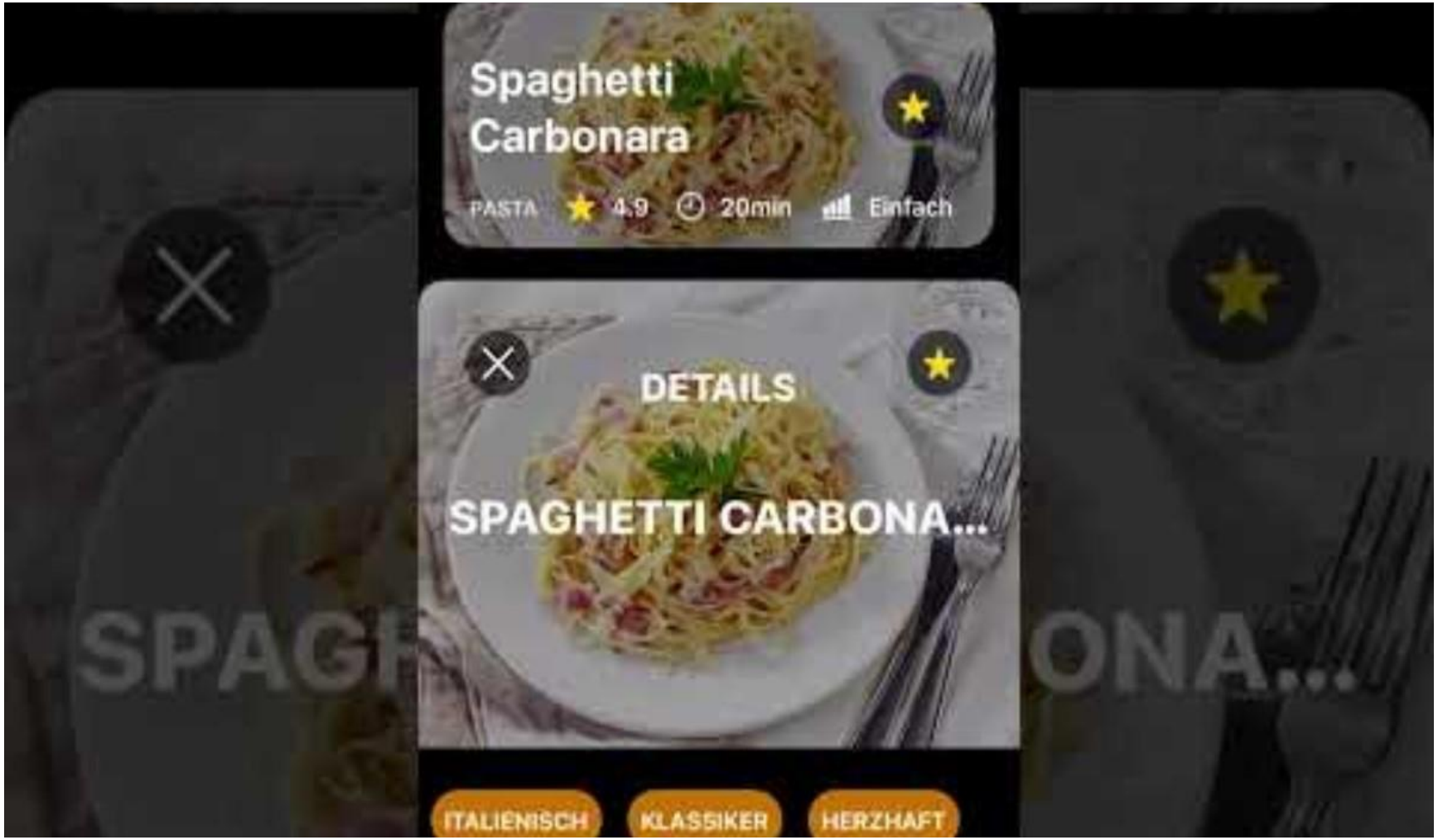
IN THE FUTURE

- Accounts
- Erstellung eigener Rezepte
- Einkaufszettel-Scan
- Essensplan für die Woche
- Veröffentlichung





VIELEN DANK


Spaghetti Carbonara
PASTA
4.9
20min
Einfach
DETAILS
SPAGHETTI CARBONA...
ITALIENISCH
KLASSIKER
HERZHAFT

FALLBACK