

# The Strategic Architecture

Instead of one giant "universal" app, we are building two specialized clients for the same backend.

## Phase 1: The Foundation (Day 1)

**Goal:** Get a blank screen running on your phone with the correct tooling.

### 1. Initialize Project (TypeScript + Expo):

Bash

```
npx create-expo-app@latest nora-mobile --template blank-typescript
```

### 2. Install NativeWind (Tailwind):

- Setup nativewind and tailwindcss immediately so you can copy-paste your web classes.
- *Why:* Keeps your design language consistent with almost zero effort.

### 4. Install Core Navigation:

Bash

```
npm install @react-navigation/native @react-navigation/native-stack @react-navigation/bottom-tabs
```

### 5. npx expo install react-native-screens react-native-safe-area-context

## Phase 2: The "Brain" Transplant (Day 2-3)

**Goal:** Move the logic without moving the UI.

### 1. Copy-Paste Logic:

Manually copy these folders from Web to Mobile:

- src/services/ (API calls)
- src/utils/ (Formatters, helpers)
- src/context/ (Auth provider, global state)
- src/types/ (TypeScript interfaces)

## 2. The "Search & Replace" Audit:

You must find and replace browser-specific code in these files:

- localStorage \$\rightarrow\$ SecureStore (for Auth Tokens).
- localStorage \$\rightarrow\$ AsyncStorage (for non-sensitive settings).
- window.location \$\rightarrow\$ Remove this (Navigation handles redirection).
- cookies \$\rightarrow\$ Mobile apps rarely use cookies; ensure your API accepts Bearer tokens in headers.

## Phase 3: The Skeleton (Day 4)

**Goal:** Create the empty rooms before filling them with furniture.

### 1. Build the Navigation Tree:

- **AuthStack:** Login, Signup (No tabs visible).
- **AppTabs:** Home, Journal, Profile (The main interface).
- **ModalStack:** Audio Player, Settings (Screens that slide up from the bottom).

### 2. Create Placeholder Screens:

- Create files for LoginScreen.tsx, HomeScreen.tsx, etc., containing just a `<View><Text>Screen Name</Text></View>`.
- Wire them up in App.tsx.

## Phase 4: UI Migration (Days 5-14)

**Goal:** Porting the visual layer.

- 1. The "Atomic" Components (First):**  
Migrate your small UI kit first.
  - Button.tsx: HTML <button> \$\rightarrow\$ <TouchableOpacity>
  - Input.tsx: HTML <input> \$\rightarrow\$ <TextInput>
  - Card.tsx: <div> with shadow \$\rightarrow\$ <View> with elevation (Android) / shadow props (iOS).

- 2. The Screens (Priority Order):**

- **Priority A (Auth):** Login/Signup. High confidence builder.
- **Priority B (Read-Only):** History lists, Profile.
- **Priority C (The Core):** The Audio Recording screen. This requires the most work.

## Phase 5: The "Native" Audio Feature (Days 15+)

**Goal:** Rebuilding the recording experience.

- 1. Install expo-av:**

- This is the standard library. Try to implement the recording logic here first.

- 2. The Visualizer Challenge:**

- *Challenge:* Web uses AudioContext to draw waveforms. expo-av only gives you amplitude metering (volume levels).
- *Solution:* Use the metering data to drive a simple animation (bars going up and down).
- *Backup Plan:* If this isn't smooth enough, we install react-native-audio-recorder-player and run npx expo prebuild.

## Phase 6: Polish & Build

- 1. Assets:** Create icon.png and splash.png.
- 2. Configuration:** Update app.json with your Bundle ID (e.g., com.nora.app).

3. **Build:**

Bash

```
eas build --profile preview --platform ios
```

## Comparison: What changed from the original plan?

Feature	Old Plan	New Recommended Plan
Code Strategy	Migrate everything at once.	<b>Copy logic first, rewrite UI.</b>
Web App	Maybe kill it?	<b>Keep it alive.</b> Separate codebase.
Styling	Undecided.	<b>NativeWind (Mandatory).</b>
Auth Storage	localStorage.	<b>expo-secure-store (Mandatory).</b>
Audio	Web Audio API.	<b>expo-av with Prebuild option.</b>