**Prompt to Create “Kannada Baruthe, Boss” App**

Please help me create an app with the specs below. If detailed specs are missing for any topic, generate best possible outcome and go ahead with app creation. At the end, generate the detailed spec of what was generated. This will help me modify the spec further to fine tune the app. Give me the complete codebase dump so I can copy-paste them to VS IDE. Give me instructions to deploy the code to github pages as well. Do a dry run of the entire app and make sure every functionality is working without any errors. Make the app aseptically pleasing and use external images wherever necessary.

**Project Goal:**Create a local, PWA-ready web app called “Kannada Baruthe, Boss” to help an English speaker (Cara) learn basic conversational Kannada. The app must run on desktop and iPhone and be offline-first using IndexedDB for progress and content storage. The UI should be ADHD-friendly, highly interactive, and visually themed around Karnataka tourism.

**1. Learner Profile & Goals**

* **User: English speaker, zero prior Kannada knowledge, ADHD-friendly UX.**
* **Daily time: 5–10 min/day, 5-day streak targets.**
* **Primary outcomes after 60 days:**
  1. **Travel survival**
  2. **Speak with family**
  3. **Handle daily small talk**

**2. Content Scope**

* **Modules (8–10 weeks focus, 8 seed modules for initial launch, 8 phrases per module):**
  1. **Greetings & Introductions**
  2. **Numbers & Time**
  3. **Directions & Transport**
  4. **Eating Out (vegetarian emphasis)**
  5. **Shopping & Money**
  6. **At Home & Chores**
  7. **Social Small Talk**
  8. **Family & Relationships**
* **Phrase Register:**
  1. **Daily / informal (d), formal (f), elder (e)**
  2. **UI toggle per lesson to switch between Buddy and Elder tone**
* **Transliteration:**
  1. **Plain English with pronunciation cues (“like ‘cat’”)**
  2. **Optional panel with mouth animation/phonetic chart**
* **Seed Modules: All 8 modules preloaded; rest added later via Author Mode**

**3. Activities & Interactivity**

* **Core Activities: Flashcards (SRS), multiple-choice quizzes, match pairs**
* **Listening: Tap-what-you-hear, dictation (type what you hear)**
* **Speaking: Microphone practice using Web Speech API (online dependency accepted), real-time feedback. Ability to skip if not working.**
* **Dialogues: Branching interactive role-plays (Canvas rendered, Buddy/Elder toggle)**
* **Mini-Games: Speed match, memory grid. Spec provided below.**
* **SRS Profile: Fast ADHD-boost (30s → 5m → 1d → 3d → 7d) with micro-rewards/confetti/trivia**

**4. Audio & Visuals**

* **TTS: Web Speech API Kannada (fallback to English TTS reading transliteration + warning)**
* **Personal/family recordings supported (mic recording in Author Mode)**
* **Mix of male/female, neutral Mangalorean accent**
* **Karnataka tourism theme: illustrated map + photographic popups**
* **Trivia: accessible separately + post-lesson micro-card (5–8s, skippable)**

**5. Progress & Motivation**

* **Track: daily minutes, XP, streaks, words learned, accuracy %, CEFR-like belt levels (Beginner → Explorer → Conversational)**
* **Visualizations: trend charts + calendar heatmap**
* **Welcome personalization: username (“Cara”) + profile photo slot**

**6. Platform & Tech**

* **Stack: HTML5 / CSS / JavaScript (Canvas-based)**
* **Database: IndexedDB (modules, progress, dialogues, trivia, user)**
* **Offline-first: Service Worker + Cache API, PWA installable**
* **Hosting: GitHub Pages compatible**
* **Audio: Web Speech API (TTS & recognition)**
* **Images: Fetched online and cached (offline fallback)**
* **Responsive: Desktop-first, mobile/tablet friendly**

**7. Author Mode & Content Management**

* **Hardcode 4-digit code to ‘1104’ to access “Author Mode” page.**
* **Add/edit phrases, upload audio (mic), tag difficulty, transliteration, register**
* **Import/export CSV/JSON: module, phrase\_id, english, transliteration, register, difficulty, audio\_filename, image\_filename, tags**
* **Progress stored in database. Add a button to reset progress.**

**8. UX & ADHD-Friendly Features**

* **Short lessons: 1–2 min max**
* **Surprise elements: animations, trivia pops between tasks**
* **Skip & return to unfinished exercises without penalty**
* **Focus mode: timer & hide navigation until done**

**9. Deployment**

* **Folder: /kbb/ with index.html, app.js, db.js, style.css, assets/, service-worker.js, manifest.json**
* **Deploy on GitHub Pages → HTTPS → PWA installable**
* **Local development: python -m http.server or npx serve .**
* **Offline caching via Service Worker + IndexedDB**

**10. Deliverables**

1. **Complete HTML/CSS/JS bundle**
2. **Canvas-based UI for flashcards, dialogues, mini-games, trivia**
3. **IndexedDB integration with seed modules and SRS logic**
4. **Web Speech API TTS + mic recognition with fallbacks**
5. **PWA-ready manifest + service worker**
6. **Author mode with CSV/JSON import/export**
7. **Documentation on running locally and deploying to GitHub Pages**

**Mini-Game 1: Speed Match**

**Goal: Quickly match Kannada phrases with English meanings (or image cues) under a time limit.**

**Gameplay**

* **Interface: Canvas-based grid of cards (e.g., 4x4 or 5x4 depending on device size).**
* **Cards: One side shows English (or image), the other side hidden Kannada transliteration.**
* **Mechanics:**
  1. **Tap/click two cards → if they match, cards stay revealed.**
  2. **If not a match → hide both after 0.5s.**
  3. **Game ends when all pairs are matched.**
* **Time pressure:**
  1. **60s per round (can adjust based on difficulty).**
  2. **Timer visible on top of Canvas.**
* **Hints: Optional “peek” button for ADHD learners (counts as small penalty).**

**Scoring**

* **Base points: +10 per correct match**
* **Bonus: +5 points for finishing under 60s**
* **Penalty: -2 per hint used**
* **Accuracy: % of correct matches / total attempts → update SRS accuracy for involved phrases**
* **XP: Total points converted to XP for SRS / daily tracker**

**Progress Integration**

* **Update progress store for each phrase involved: increment review count, recalc next SRS date**
* **Unlock trivia micro-card after game completion**

**Mini-Game 2: Memory Grid**

**Goal: Memorize the position of Kannada words/images and recall them.**

**Gameplay**

* **Interface: Canvas-based grid (e.g., 4x4)**
* **Phase 1 – Study:**
  + **Show all cards with Kannada word + image for 3–5 seconds (configurable)**
  + **User memorizes placement**
* **Phase 2 – Recall:**
  + **Cards are hidden**
  + **User clicks a position → prompted to type/choose matching English word**
* **Phases repeat: Gradually reveal hints for challenging cards**

**Scoring**

* **Base points: +5 per correct recall**
* **Time bonus: +1 point for each second remaining in time limit per round**
* **Penalty: -2 per wrong attempt**
* **Accuracy: #correct/#attempts → update SRS accuracy for involved phrases**
* **XP: Convert total points to XP for daily tracker and belt progress**

**Progress Integration**

* **Update progress store: step, last\_reviewed, next\_review, accuracy**
* **Unlock related trivia cards if all phrases correctly recalled**
* **Option to mark “hard cards” to repeat in next SRS session**

**ADHD-Friendly Mechanics**

* **Both games max 1–2 min per session**
* **Visual feedback: confetti for correct matches, animations for completed grid**
* **Surprise micro-trivia pop-ups after a round (~5–8s)**
* **Skip/exit allowed anytime, no penalty, progress saved to IndexedDB**

**Canvas Implementation Notes**

* **Grid Layout: Dynamic based on Canvas width/height**
* **Animation: Smooth card flipping + confetti for correct answers**
* **Touch + Mouse support: Tap for iPhone, click for desktop**
* **Audio feedback: Correct/incorrect sounds (optional TTS or recorded sound)**
* **Integration: Pull phrases from modules store, update progress store**

**Summary Table**

| **Game** | **Type** | **Time** | **Points** | **Penalty** | **Progress Integration** |
| --- | --- | --- | --- | --- | --- |
| **Speed Match** | **Matching cards** | **60s** | **+10 per match** | **-2 per hint** | **Update SRS, unlock trivia** |
| **Memory Grid** | **Recall** | **3–5s study + recall** | **+5 per correct** | **-2 per wrong** | **Update SRS, mark hard cards, unlock trivia** |

**Kannada Learning Web App — Flow Diagram**

[Dashboard / Home]

├─ Welcome Banner: "Hi Cara!" + profile photo

├─ Streak & Daily Minutes

├─ XP Bar / Belt Level

├─ Buttons:

│ ├─ Modules → [Module Lesson]

│ ├─ Dialogue Practice → [Dialogue]

│ ├─ Mini-Games → [Mini-Game]

│ └─ Trivia → [Trivia Cards]

------------------------------------------------

[Module Lesson] (1–2 min micro-lessons)

├─ Phrase Card (English + Transliteration)

│ ├─ Flip → show pronunciation examples

│ ├─ Play audio (TTS / user/family)

│ ├─ Skip / Next

├─ Inline pop-up trivia (optional)

├─ Animation / micro-rewards for completion

└─ End of module → XP, streak update → back to Dashboard

------------------------------------------------

[SRS Review Mode]

├─ Phrase prompt (English or transliteration)

├─ Activity types:

│ ├─ Flashcard recall

│ ├─ Multiple-choice

│ ├─ Tap-what-you-hear (listening)

│ └─ Dictation (type what you hear)

├─ Correct answer → confetti + micro-trivia

├─ Incorrect → optional hint / retry

└─ Update progress in IndexedDB → next\_review timestamp

------------------------------------------------

[Dialogue Practice]

├─ Toggle: Buddy / Elder

├─ Conversation bubbles

│ ├─ User selects response OR speaks via mic

│ ├─ Real-time feedback

├─ XP & streak updates

└─ Optional mini-trivia after completion

------------------------------------------------

[Mini-Games]

├─ Speed Match (image ↔ phrase)

└─ Memory Grid (match pairs)

└─ Short sessions → confetti + XP

└─ Optional SRS phrase integration

------------------------------------------------

[Trivia Section]

├─ Swipeable / scrollable trivia cards

├─ Text + image

├─ Unlocked via lessons / dialogues

└─ Skip always available

------------------------------------------------

[Author Mode]

├─ Add / Edit Phrases

│ ├─ English, Transliteration

│ ├─ Register (d/f/e), Difficulty

│ ├─ Tags, Image, Audio

│ └─ Inline mic recording

├─ Import / Export CSV or JSON

└─ Preview phrase cards