Offline Learning Readiness Checklist

The two halves of offline learning — packaging content for the device, and syncing the learning record back — with the standards facts that make each one work.

A. Content packaging & download

- [ ] Pick the download path: native app, or PWA (service worker + Background Fetch)
- [ ] Offer quality tiers at download; default to a data- and storage-light tier
- [ ] Show the storage cost up front; cap 'download all' to a storage budget
- [ ] Ship captions and transcripts inside the package — WCAG 2.1 AA applies offline
- [ ] For DRM video, set the persistent-license lifetime to exceed the offline window

B. Offline tracking with xAPI

- [ ] Build on xAPI or cmi5, not SCORM alone, when offline tracking matters
- [ ] Write each event as an xAPI statement to on-device storage (IndexedDB)
- [ ] Set the real timestamp AND a client-side UUID on every statement
- [ ] Capture video watch events with the xAPI Video Profile

C. Sync & token refresh

- [ ] Queue statements locally; flush them to the LRS in batches on reconnect
- [ ] Retry the flush until every statement is acknowledged by the LRS
- [ ] Refresh or re-fetch the auth token on reconnect — it may have expired
- [ ] Trigger the flush with Background Sync (web) or the app's equivalent

D. Conflict reconciliation on reconnect

- [ ] Trust append-only statements: the LRS de-duplicates them by UUID
- [ ] Define a rule for mutable state: last-write-wins by the real timestamp
- [ ] Prefer a 'furthest progress' merge so a learner is never sent backward
- [ ] Test the two-device offline case before you ship