# Calendar Puzzle App - One-Page Summary

## What it is

A browser-based perpetual calendar puzzle game where players place and rotate pieces to cover the board while leaving one month, one day, and one weekday visible.

The app is implemented as a static front-end using HTML, CSS, and JavaScript ES modules.

## Who it is for

Primary persona: casual puzzle players and logic game fans who want a quick daily date challenge in a browser.

## What it does

- Renders a fixed calendar board with month/day/weekday cells and highlights the target holes.
- Generates a random date target and supports a one-click "Use today" target.
- Builds ten draggable polyomino-like puzzle pieces from shape definitions.
- Supports per-piece rotation via button and keyboard shortcut (R).
- Shows ghost previews and snaps pieces to grid positions on the board.
- Validates placements (bounds, overlap, and target-hole protection) and reports status messages.

## How it works (repo evidence)

- UI shell: index.html lays out the board, side panel, controls, status, and pieces container.
- Board module: board.js builds board cells, indexes cells by id/grid, tracks target hole IDs, and updates year label/ghost layer.
- Piece module: pieces.js defines shapes, computes rotations, handles drag and snap behavior, validates legal placement, and binds pointer/keyboard events.
- Game orchestration: main.js sets target dates, updates UI, triggers board highlighting, and runs victory checks against full-board coverage rules.
- Data flow: control click or date selection -> target state update -> board hole marking -> piece interactions -> check action -> status output.
- Backend services/API, persistent storage, auth, analytics, CI/CD config: Not found in repo.

## How to run (minimal)

1. In the repo root, start a static server (ES modules need HTTP): python3 -m http.server 8000
2. Open http://localhost:8000 in a browser.
3. Click "New random date" or "Use today", place/rotate pieces, then click "Check".