



Build Evidence & Wireframes

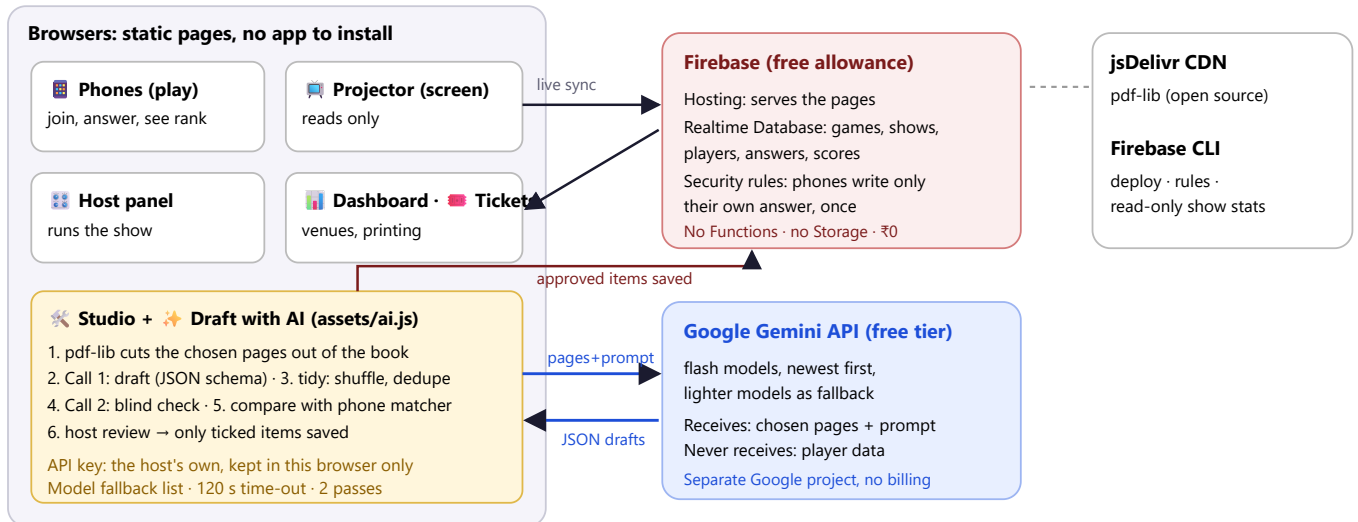
What was actually built and shipped: the live platform, and the AI drafting feature inside it

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Code written with **Claude Code (Anthropic)**; problem, requirements, tests and every product decision mine

Live: sarvodayahinsa.web.app

1. Architecture



Orchestration is about 700 lines of plain JavaScript in the browser (`assets/ai.js`). The NGO's rule is that the platform may never cost money, which rules out Cloud Functions. So there is no server: the Studio calls Gemini directly with the host's own free key, and approved questions are saved through the same database path as hand-written ones.

2. Tool stack

Tool	Purpose	Free / paid tier used
HTML, CSS, JavaScript (no framework)	All pages: phone, projector, host panel, Studio, dashboard, tickets	Free
Firebase Hosting	Serves sarvodayahinsa.web.app	Free allowance (Blaze plan, ₹0 billed)
Firebase Realtime Database + rules	Live game state, players, answers, scores; security rules	Free allowance (1 GB stored, 10 GB/month)
Firebase Authentication	Host sign-in; anonymous sign-in for phones	Free
Google Gemini API (flash family)	Reads the scanned pages, drafts questions, blind check	Free tier , about 20 requests a day per model
pdf-lib (via jsDelivr)	Cuts the chosen page range out of the PDF in the browser	Free, open source
Claude Code (Anthropic)	My AI engineering partner: wrote and tested the code to my specification, analysed show data, helped draft these documents	My own Claude plan
Firebase CLI · Playwright + Microsoft Edge	Deploys · screenshots for this file (rehearsal mode)	Free

3. Build evidence: the AI feature, screen by screen

Figures 4.2–4.5 are rendered by the shipped code, replaying the real drafts from a live run on 15 Oct 2026 (book बृहद् द्रव्य संग्रह, PDF pages 41–50, model gemini-3.5-flash-lite) so they print sharply. Figure 4.6 is a deliberate fault-injection test. Every screen is in rehearsal mode; no live show data is touched.

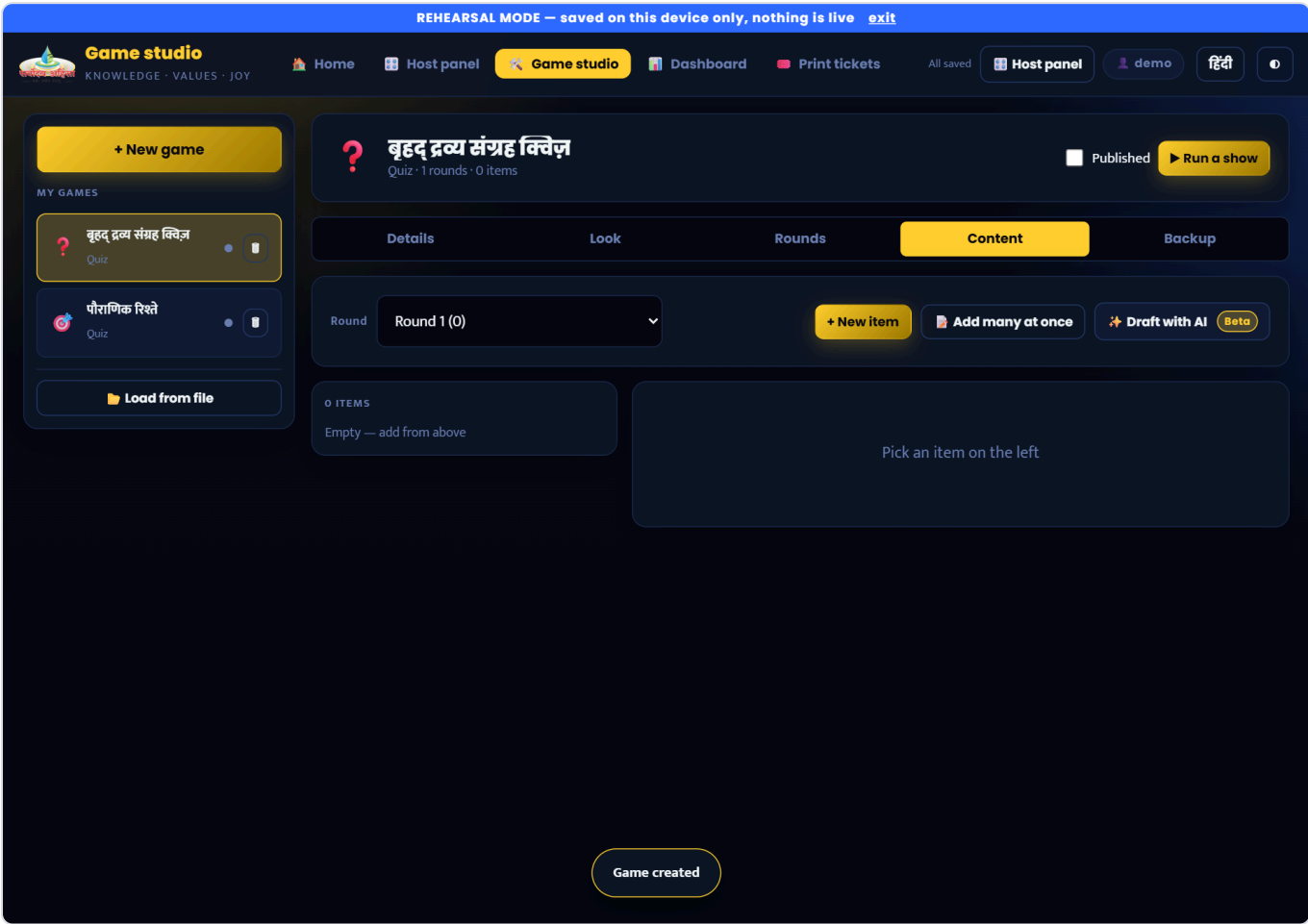


Figure 4.1 • Entry point. Studio → Content: ✨ *Draft with AI (Beta)* sits next to the manual options, at the step where the friction is. Manual entry stays one click away.

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Figure 4.2 · Input with realistic data. The real book (228 scanned pages), pages 41–50, 4 easy / 4 medium / 2 hard, Hindi, a focus topic. The key box shows only a masked test value here.

	☐	असंख्यात प्रदेशी
	☐	लोकप्रमाण

Figure 4.3 • Processing. Step 1 of 2 (drafting), then step 2 (the blind check). The note explains that a busy Google means trying another model.

Draft questions from a book

Beta

X

AI reads the pages you choose and drafts questions. You approve every one — nothing reaches a show until you add it.

Google's free AI is very busy right now — we tried several models. Wait a minute and try again.
You can still add questions by hand or with "Add many at once".

Your free Gemini key

✓ Key saved - ...real

Change key

Source book (PDF)

PDF

vrihad dravya sangrah - 228 pages

बृहद् द्रव्य संग्रह

Pages to read

41

to

50

Language of the questions

हिंदी

Up to 20 pages at a time keeps it free and focused.

How many, by difficulty

Easy

4

Medium

4

Hard

2

Stated plainly in the text — good for children and elders

Takes the idea understood, or two lines joined

Applying a principle; close wrong options

Question style

Standard

Focus on (optional)

जीव के लक्षण, उपयोग, समष्टिगत

Figure 4.6 · Failure handled. Fault-injection test: every model returns 503. After two passes the host gets a plain message and a route to manual entry. The book and settings stay loaded.

Review the drafts

10 drafts · 10 confirmed by the book · 0 need your check

⚠ Google's main model was busy, so a lighter one wrote these. Read them with extra care.

☒ #1 **Easy** **Checker agreed** PDF page 46: "व्यवहारनय से जीव किस प्रमाण रहता है?"

Question

व्यवहारनय से जीव किस प्रमाण रहता है?

Options (tick the right one)

☐ अणुप्रमाण ☐ अस्संख्यात प्रदेशी

☒ देहप्रमाण ☐ लोकप्रमाण

Explanation

व्यवहारनय की अपेक्षा जीव अपने शरीर (देह) के प्रमाण रहता है।

☒ #2 **Easy** **Checker agreed** PDF page 46: "निश्चयनय से जीव कितने प्रदेशों का धारक है?"

Question

निश्चयनय से जीव कितने प्रदेशों का धारक है?

Options (tick the right one)

☐ अणुप्रमाण ☐ अस्संख्यात प्रदेशी

☒ देहप्रमाण ☐ लोकप्रमाण

[Draft more](#) [+ Add 10 to this round](#)

Figure 4.4 · AI output for review. Each draft has a tick box, an editable level, the blind-check verdict, the PDF page and a quote, editable question and options with the right one marked, and an explanation. A warning says a lighter model wrote this batch.

Review the drafts

10 drafts · 10 confirmed by the book · 0 need your check

⚠ Google's main model was busy, so a lighter one wrote these. Read them with extra care.

☒ #8 **Medium** **Checker agreed** PDF page 45: "कुल कितने प्रकार के समुद्रघात कहे गए हैं?"

Question

कुल कितने प्रकार के समुद्रघात कहे गए हैं?

Options (tick the right one)

☐ निश्चयनय ☐ परमाण्वनय

☐ शुद्धनय ☒ व्यवहारनय

Explanation

व्यवहारनय की अपेक्षा से आत्मा सुख-दुख रूपी पुद्गल कर्मफल को भोगता है।

☒ #9 **Hard** **Checker agreed** PDF page 45: "आत्मा निश्चयनय से किसका भोक्ता है?"

Question

आत्मा निश्चयनय से किसका भोक्ता है?

Options (tick the right one)

☐ पुद्गल कर्म फल का ☐ इन्द्रिय जनित सुख का

☐ अस्संख्यात प्रदेशी का ☒ देह का

[Draft more](#) [+ Add 10 to this round](#)

Figure 4.4b · Further down the same batch. Medium and hard drafts, e.g. "कुल कितने प्रकार के समुद्रघात कहे गए हैं?" → सात (p. 47), and the नय-based "hard" items.

Game studio REHEARSAL MODE — saved on this device only, nothing is live [exit](#)

Home Host panel **Game studio** Dashboard Print tickets [Saved](#) Host panel demo हिंदी

[+ New game](#)

MY GAMES

[बृहद् द्रव्य संग्रह विज्ञ](#) Quiz [Load from file](#)

[पौराणिक रिश्ते](#) Quiz

बृहद् द्रव्य संग्रह विज्ञ Quiz · 1 rounds · 10 items [Published](#) [Run a show](#)

Details Look Rounds **Content** Backup

Round Round 1 (10) [+ New item](#) [Add many at once](#) [Draft with AI](#) [Beta](#)

10 ITEMS

- व्यवहारनय से जीव किस प्रमाण रहता है? → C
- निश्चयनय से जीव कितने प्रदेशों का धारक है? ...
- पृथ्वी, जल, तेज, वायु और वनस्पति किस प्रका...
- शंख आदि जीव किस श्रेणी में आते हैं? → C
- समुद्रघात की अवस्था न होने पर जीव की स्थि...
- कुल कितने प्रकार के समुद्रघात कहे गए हैं? ...
- इन्द्रियों के विषयों से उत्पन्न सुख-दुख का भो...
- आत्मा निश्चयनय से किसका भोक्ता है? → D
- सातवें केवलिसमुद्रघात में कौन सा समुद्रघात ...

Item 1 [Duplicate](#) [Delete](#)

Question

व्यवहारनय से जीव किस प्रमाण रहता है?

Options — tick the correct one

☐ A अणुप्रमाण ☒ 50:50

☐ B अस्संख्यात प्रदेशी ☐ 50:50

☒ C देहप्रमाण ☐ 50:50

☐ D लोकप्रमाण ☒ 50:50

10 questions added — they are yours to edit like any other

Explanation

व्यवहारनय की अपेक्षा से जीव अपने शरीर (देह) के प्रमाण रहता है।

Figure 4.5 · After "Add". The 10 approved questions are now ordinary items in the round, editable like any other. The 50:50 pair is pre-selected, and the explanation is ready for the host to read after the reveal.

Backend wiring: the real request and a real stored result

```
// Call 1 – draft (assets/ai.js), trimmed
POST generativelanguage.googleapis.com/v1beta/models/
  {first free flash model that
  answers}:generateContent
x-goog-api-key: {host's own key – this browser only}
{
  "contents": [{ "role": "user", "parts": [
    { "inlineData": { "mimeType": "application/pdf",
      "data": "<pages 41-50 only,
base64>" } } ],
  { "text": "You are helping Sarvodaya Ahinsa, a Jain
community
  NGO... 1. Use ONLY what is written in these pages...
  4. quote = AT MOST 10 words... 6. difficulty is
judged
  for an ordinary family audience... A question that
  depends on the नय distinction is never easy...
  10. Make exactly 4 easy, 4 medium and 2 hard items"
} ]}],
"generationConfig": {
  "responseMimeType": "application/json",
  "responseSchema": { items: [ { question, options[],
    correctIndex, difficulty: easy|medium|hard,
    page, quote, explanation } ] },
  "temperature": 0.4 }
}
// Call 2 – blind check: same pages, the questions
// WITHOUT answers: "Answer each item on your own..."
```

```
// A real question as saved by the Studio after approval
–
// typed-answer, two-clue style, live run on 14 Oct 2026
{
  "title": "आठ प्रकार के ज्ञान और चार प्रकार के दर्शन का धारक
  तथा जिसमें प्राण होते हैं?",
  "answer": "जीव|Jiva|Jeev|Jiv", ← English spellings
accepted
  "explain": "ज्ञान और दर्शन जीव के मुख्य लक्षण हैं, जो उसे
  अजीव से अलग करते हैं।",
  "ai": {
    "d": "easy", difficulty
    "p": 41, PDF page cited
    "b": "vrihad dravya sangrah", book
    "v": "ok", blind check agreed
    "e": 0, host did not edit
    "m": "gemini-3-flash-preview", model that wrote it
    "at": 1792002033418
  }
}
// The "ai" block is the evaluation data for File 05:
// approval, edit and calibration rates per model,
// per round type, per level.
```

4. Build evidence: the platform it lives in



Figure 4.7 · Host panel, live. Joining code, players joined, venues, rounds, and every item in the round.

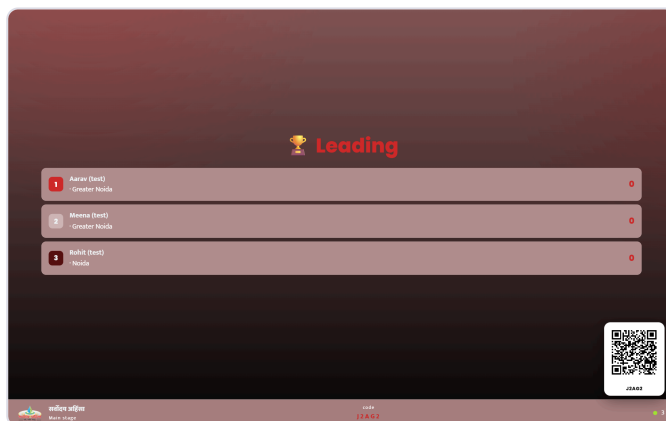


Figure 4.8 · Projector, Top 10. After each reveal the hall sees the leaderboard. The projector only reads data, so refreshing it is always safe.

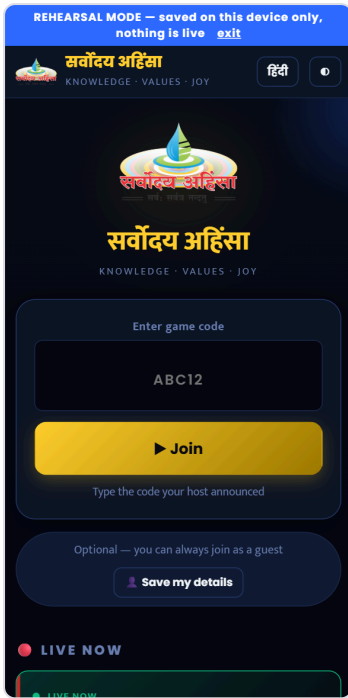


Figure 4.9 · Phone home. Only a code box: the library and Studio are hidden from the audience on purpose.

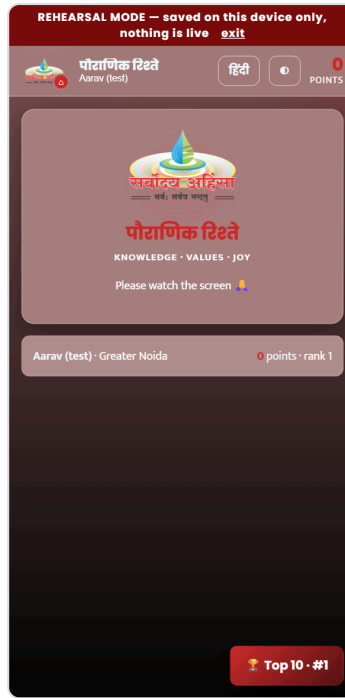


Figure 4.10 · Joined. The player waits for the host's first question.

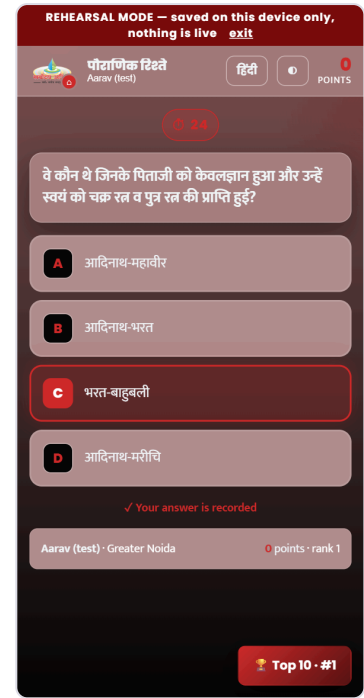
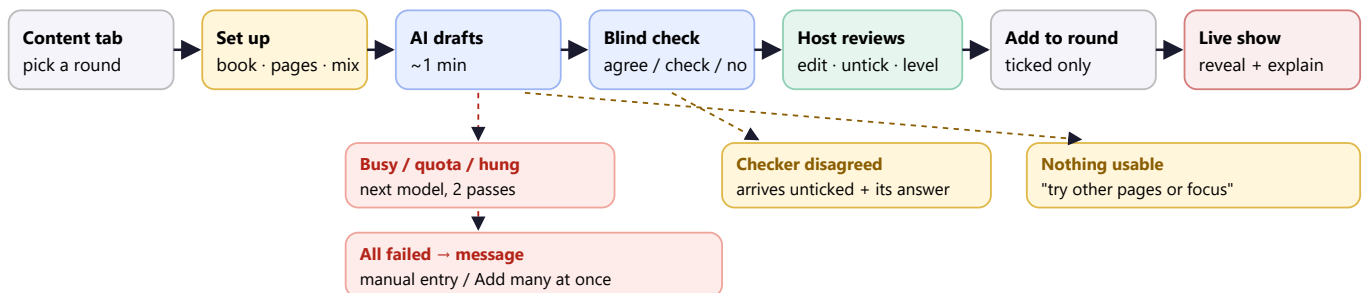


Figure 4.11 · Answer locked. One answer per question, enforced by the database rules.

Test players are marked "(test)". All platform screenshots come from rehearsal mode, which behaves like a real show but stays on one computer.

5. User flow with the AI feature



6. Wireframes (low fidelity)

A · Set up

🌟 Draft questions from a book [Beta]

Key: [●●●●●●] (Get a free key ↗)

Book: [📖 PDF] name · 228 pages

Pages [41] to [50] Language [हिंदी ▼]

Easy [4] Medium [4] Hard [2]

Style [Standard ▼] Focus [...]

🔒 pages go to Gemini, players never do

Draft ▶

B · Review a draft

10 drafts · 9 agreed · 1 check

☒ #3 [Easy ▼] (Checker agreed) p.49

Question: _____

☐ option A ☐ option B

☒ option C ☐ option D

Explanation: _____

"short quote from the page"

🔄 Draft more **+ Add 9 to round**

C · Error / fallback

Google's free AI is very busy — we tried several models.

You can still add by hand.

(book, pages and settings kept)

#7 [Hard] (Checker disagreed)

checker answered: "ज्ञान / आयुष्मन्"

☐ left out — host may edit & tick

Try again ▶

7. UX rationale

- **Why the flow sits here.** The button lives on the Content tab, the exact step where questions are typed in today. AI replaces typing, not the host's judgement, and manual entry stays one click away.
- **Making output easy to trust.** Every draft shows *where it came from* (page and quote) and *whether an independent check agreed*. Trust comes from being able to check, not from the AI sounding confident.
- **Review is fast but deliberate.** Drafts the checker disagreed with start unticked, so agreeing takes no effort and disagreement is never hidden. Levels and options can be edited in place.
- **Privacy and cost, said out loud.** The key note says "new project, no billing". The data note says "pages go to Gemini, player details never do".
- **Failure cases from File 03.** Busy and quota trigger automatic fallback, then a plain message. Doubtful drafts are marked "Check this". Wrong ones are unticked with the checker's answer. A weak model triggers a warning. Nothing usable gives a clear hint. The settings always survive an error.
- **Same language as the rest of the site.** The whole dialog switches between English and हिंदी with the existing toggle.