

REDWOOD STACKS • FREE RESOURCE

The build breakdown

Six decisions that took a study app from two kids to strangers who found it on their own, and keep it shipping.

GUIDE • 6 PAGES



REDWOOD STACKS

redwoodstacks.ai

THE BUILD

Three decisions make people use it. Three make it hold up.

OlyPrep is a Science Olympiad prep app, built first for a 15-kid elementary team. Two weeks after that team started using it, they had run more than 600 practice tests and over 1,000 learning sessions, and parents and coaches nobody had met were signing up.

It has shipped as 279 pull requests across 53 working days. What follows is the method, not the marketing.

PRODUCT — WHY PEOPLE USE IT

- Constrain the AI
- Adapt to every user
- Give them a plan

TECHNICAL — WHY IT HOLDS UP

- Decide the hard things first
- Ship small and reversible
- Prove a narrow slice, then scale

Three decisions that got it used.

Constrain the AI. Do not open it up.

The coach only answers inside the competition material. That one limit is why parents trusted it with their kids, and why kids stayed on task instead of drifting into an open chatbot. *For your business:* a narrow assistant that does one job well gets used. A general “AI for everything” gets abandoned.

Make it adaptive, not static.

The practice engine tracks where a student is weak and sends more of exactly that. *For your business:* adoption follows relevance. A tool that reacts to the user beats one that shows everyone the same thing.

Give them a plan, not just a tool.

A weekly schedule per event, a path through dense material, and a short audio explainer for the hardest topics. *For your business:* people do not adopt tools they have to figure out alone. Pair the tool with a clear next step.

Three decisions that made it fast to ship.

Decide the hard things first.

The product calls and the riskiest architecture were settled in a strategy document before any feature code. *For your business:* most AI projects thrash because the hard calls get deferred. Deciding first is what buys speed later.

Ship small, reversible steps behind flags.

279 pull requests, each small enough to release and reverse on its own, each hidden behind a feature flag until the whole vertical was finished. *For your business:* you see steady, low-risk progress every week instead of a six-month black box.

Prove the pattern on two real cases before scaling.

Two events shipped to real kids, a week of feedback, the pattern locked, then the rest built out. *For your business:* pilot on a narrow slice, learn from real usage, then roll out.

THE DECISION THAT CAME LATER

Check the AI's work with something other than itself.

The hardest problem was not the app. It was that AI-generated practice questions are confidently wrong often enough to destroy a parent's trust in one sitting.

So no generated question reaches a student on the strength of the model that wrote it. A separate model checks each one against the competition's own rulebook, and a question only becomes servable if it passes. Tested against ten deliberately seeded errors, the validator caught nine.

For your business: if AI output reaches a customer, something other than the model that produced it has to check it first. That check is the difference between a demo and a product.

AI speeds up the building. Not the deciding.

That is where most of the value is, and it is what the free 30-minute AI Discovery Session is for. You say what the business does and where it is stuck, and you leave with an honest read on where AI can realistically help and where it cannot.

[Book a free Discovery Session](#)

The full story: redwoodstacks.ai/case-studies/olyprep