**AiDIY – Ai DIY Builder Starter Pack**

**AiDIY: *Our AI Buddy Helping Kids Build Lifelong Money Confidence!***

**AiDIY** is an **AI-powered app that helps kids and teens (ages 8–16) master essential money skills—budgeting, saving, smart spending, and beyond.**

With personalized coaching and interactive challenges, AiDIY turns financial literacy into a fun, hands-on journey. Whether it's learning how to set a savings goal, plan a budget, or understand digital vs. cash spending, AiDIY’s friendly virtual buddy guides kids every step of the way and parents can track and assign challenges through this safe app.

**Our Founding Story:**

"As a mom of a curious 10-year-old and a busy toddler, I found myself struggling with a challenge many parents face:  
**How do I prepare my older child with essential life skills, while juggling everything else?**

How do I teach my older child essential money skills—like saving, budgeting, and making smart spending choices—while juggling everything else?

Between work, caring for my 3-year-old, and the daily chaos of parenting, I wanted to help my 10-year-old build good money habits. Not to spend his pocket allowance or birthday gift on instant purchases. I wanted him to learn to plan, save, and think ahead. But I didn’t have time, tools, or the energy to teach these lessons consistently.

That’s where the idea for **AiDIY** was born: a fun, interactive ‘buddy’ that makes learning money skills feel like a game in a safe way!

**Vision:** Coaching the next generation through an AI buddy that teaches essential money skills, builds smart habits, and inspires lifelong financial confidence. - reframe it how we will measure each one of the components - money skill, smart habits and lifelong financial confidence

**KPIs**

* **Teaching essential money skills** → measured by skill completion, quiz scores, and parent feedback.
* **Building smart money habits** → measured by goal-setting rates, goal achievement, and frequency of financial decisions.
* **Inspiring lifelong financial confidence** → measured by improved self-confidence, parent-reported growth, and Net Promoter Score.

**Problem We Are Solving**

**Financial Blind Spots in a Cashless, Digital World**

Kids are growing up surrounded by digital money (taps, apps, in-game purchases), yet lack basic financial understanding—budgeting, saving, spending wisely. This gap leaves them vulnerable to developing poor money habits early. AiDIY Solves: A gamified AI buddy that translates real-world money skills into daily practice, making budgeting, saving, and mindful spending interactive, tangible, and fun.

*Maya, an 11-year-old, wants to buy a $250 bike—but doesn’t know how to break a big goal into small, achievable steps. She lacks a plan, gets discouraged by the long timeline, and doesn’t see how small efforts add up. AiDIY solves this by turning savings goals into interactive micro-missions, tracking progress visually, and keeping kids motivated with voice-driven encouragement, rewards, and real-world earning ideas—empowering them to reach big goals, one step at a time.”*

**Emotional & Impulse-Driven Spending Habits**

In an era of instant gratification, kids are bombarded with ads and peer pressure, fueling impulse spending and emotional buying. They lack tools to build self-awareness and good decision-making habits. AiDIY Solves: The AI buddy guides reflective conversations that help kids recognize emotional triggers, practice delayed gratification, and build healthy money habits— turning financial literacy into a life skill.

*Liam, a 10-year-old, feels pressured to buy the latest game skin after seeing ads and hearing his friends talk about it. He struggles with impulse spending, buying without thinking, and regrets his choices later—he doesn’t know how to pause or plan ahead.*

*AiDIY turns impulse spending into a teachable moment by guiding kids through reflection, helping them pause, visualize trade-offs, and rewarding thoughtful choices—building self-awareness, patience, and smart money habits.”*

Safety, Trust & Lack of Personalized Learning Tools

Parents worry about online safety, privacy, and excessive screen time. Kids get bored with dry, one-size-fits-all learning apps that don’t feel personal or relevant. Without strong engagement + trust, both kids and parents quickly lose interest.AiDIY Solves:

* Privacy-first AI (COPPA-compliant) with offline mode
* Parental dashboard for transparency + progress tracking +spending habits
* Age-appropriate AI coaching that adjusts tone, language, and challenges based on the child’s age, they can choose tone
* A relatable AI buddy + gamified missions that keep learning fun, meaningful, and safe

*Priya wants her 8-year-old son Ethan to start learning money skills, but she’s worried about exposing him to unsafe content, ads, or unfiltered AI interactions.*

***AiDIY solves this by offering a privacy-first, offline-enabled AI buddy that uses age-appropriate coaching, built-in guardrails, and no external internet content—giving Priya peace of mind while empowering Ethan to learn safely, independently, and at his own pace.”***

**Market Analysis & Research**

**Parents Survey Highlights (18)**

* Saving & budgeting are top priorities for parents to teach kids.
* 65%+ not confident in kids' money skills yet.
* Prefer short videos & real-life challenges.
* 80%+ eager for mini money missions.
* Top safety ask: No personal data + parental controls, age-Appropriate AI Responses.

**Kids Survey Highlights (11)**

* Know saving & budgeting, curious about investing.
* Prefer videos + fun games + AI buddy.
* Buddy: Cartoon/human-like, excited/funny/helpful voice.
* Motivated by rewards & badges.
* Biggest turn-off: boring/confusing UX + ads

**Key Takeaways**

•Strong alignment on the need for practical money skills.

• AiDIY’s friendly, customizable buddy is key.

• Safety & parental trust are essential for adoption.

• Gamification (XP, badges) is a major motivator.

• Early adopter feedback supports MVP focus on 'Money Smarts'.

**Competitor Landscape: High-Level Overview**

GoHenry / Greenlight / Mydoh: Strong finance tools (debit cards, chores) but no AI or broader life skills, BusyKid: Chores + allowance but lacks deep engagement or avatars broader.

EdTech & AI Apps - Duolingo, Khan Academy Kids: Great gamification & learning but focus on academics only.

DIY.org & Outschool: Creative & live classes but no AI mentorship.

DIY & Maker Kits- KiwiCo, LEGO: Hands-on learning but no digital/AI companion.

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| --- | --- | --- | --- | --- |
| **Feature** | **AiDIY** | **GoHenry/Greenlight** | **Duolingo** | **Mydoh (RBC)** |
| Conversational AI Buddy | ✅ (Aidie) | ❌ | ❌ | ❌ |
| Gamified Learning | ✅ XP, badges, challenges | ⚠️ Limited (finance only) | ✅ (academics only) | ⚠️ Light gamification |
| Life Skills (Finance + More) | ✅ Finance + Home + Cooking | ✅ Finance only | ❌ | ✅ Finance only |
| Parental Oversight | ✅ Dashboard, Safe AI | ✅ Full parental control | ❌ | ✅ Full parental control |
| Privacy & Offline Mode | ✅ Offline & COPPA-compliant | ❌ Online only | ⚠️ Online only | ❌ Online only |
| Multimodal UX | ✅ Voice + Touch + Visuals | ❌ Basic UI | ✅ Touch/Visual | ❌ Basic UI |

**Market Gap** : No single product offers AI-powered personalized life skills + gamified learning + privacy-first design (Safe AI)

**AiDIY: What Makes Us Stand Out**

**Key Differentiators:**

* Personalized AI Coaching: Unique conversational AI buddy—no competitor offers this
* Habit & Emotional Spending: Tackles money mindset + behavior, not just tasks/tools
* Privacy & Age-Appropriate: COPPA-compliant, age-filtered AI, offline mode, parents can track spending habits
* Engagement: Gamified XP, badges, and personalized missions to keep kids hooked
* Vision: Starts with money but scales to broader life skills, setting up long-term relevance

**SOCIAL RESPONSIBILTY - Where life skills meet social impact—We don’t just teach kids to manage money—we teach them to make an impact through donations**

**AI Hypothesis for Ai DIY (MVP)**

When AiDIY’s AI system achieves >85% accuracy in validating kids’ task submissions (via Intelligent Character Recognition for uploaded photos, worksheets) and generating personalized coaching recommendations (via conversational AI), then kids aged 8–16 will demonstrate stronger engagement (≥70% complete, 3+ challenges within 4 weeks), improved financial confidence (≥60% of parents reporting confidence gains in post-use surveys), and sustained money-saving habits (≥50% opt into additional challenges)—leading to a 20% increase in retention and monetization via premium tiers and partner integrations as compared to any other baseline gamified kids learning app without AI personalization.

**Roadmap ( MVP)**

| **Timeline** | **Milestone** |
| --- | --- |
| **Weeks 1–2** | **Planning & Finance Foundations (Core):** - Define core money skills (budgeting, saving, needs vs. wants) - Build financial literacy rubric (for age 8–18) - Finalize tech stack + COPPA framework - Design AiDIY avatar + voice persona |
| **Weeks 3–4** | **Conversational Coaching Core:** - Build avatar (voice + text) - Develop 3–5 interactive **Money Smarts lessons** (budget tracker, goal setting, saving tips) - Add “Wants vs. Needs” & “Impulse Check” mini-activities - Integrate STT (Whisper) + TTS (Coqui) - Backend setup (Node.js + DB) |
| **Weeks 5–6** | **ICR Smart Finance Feedback + Gamification:** - Build upload module + integrate ICR (Google Vision/Tesseract) to read **budget worksheets + savings plans** - AI feedback engine to provide personalized **money tips (e.g., “Nice savings goal!”)** - Implement XP + badges for finance milestones (e.g., “First Budget Complete”) - Parent Dashboard v1: Show savings goals + task completion |
| **Weeks 7–8** | **Safety, QA & Finance Behavior Checks:** - COPPA compliance & privacy QA - Implement **Spending Reflection Module** (kids record or write “Why I spent $X”) - Final QA + offline fallback (STT/TTS) - Run pilot with **focus on tracking budgeting & savings progress** |

### **MVP Outcome**

**Conversational Personalized Coaching:** Age-appropriate AI coaching on **budgeting, saving, and smart spending**—powered by the AiDIY avatar

**ICR-Based Task Validation:** Kids upload worksheets/savings plans; ICR extracts data gives **instant, personalized finance feedback**

**Gamification:** Earn XP + badges tied to **real finance milestones**

**Parent Dashboard v1:** See **savings progress, budgeting task completion, and reflection reports Privacy-First Design:** COPPA-compliant + offline fallback for full safety assurance, track spending habits.

**Pilot Test & Finance Insights:** Beta test **engagement, skill mastery (budgeting & saving)** and parental satisfaction on finance features

**AI Hypothesis (Feature-Specific - Gamification)**

If AiDIY provides kids aged 8–18 with an intuitive upload module, intelligent character recognition (ICR) for task analysis, and real-time AI feedback combined with XP/badge rewards, then users will complete assigned task/ challenges and demonstrate higher engagement and financial confidence—because immediate, actionable feedback and gamified reinforcement increase motivation and learning retention.

### **What We’re Testing:**

* Gamification Impact: Do XP and badges increase session frequency and sustained engagement?
* Recognition Accuracy: Can we reliably extract handwritten or photo-based budget data (>85% accuracy)?
* Feedback Quality: Does real-time, personalized feedback improve task completion rates

**Key Metrics:**

* CR Accuracy Rate: Target >85%.
* Task Completion Rate: >70% of submitted tasks.
* Engagement: Repeat participation + streaks.
* Feedback Usefulness: Parent/kid ratings post-session.
* Gamification Metrics: XP earned, badges unlocked, retention

**Example Prompt - Gamification Feature (to LLM from Backend):**

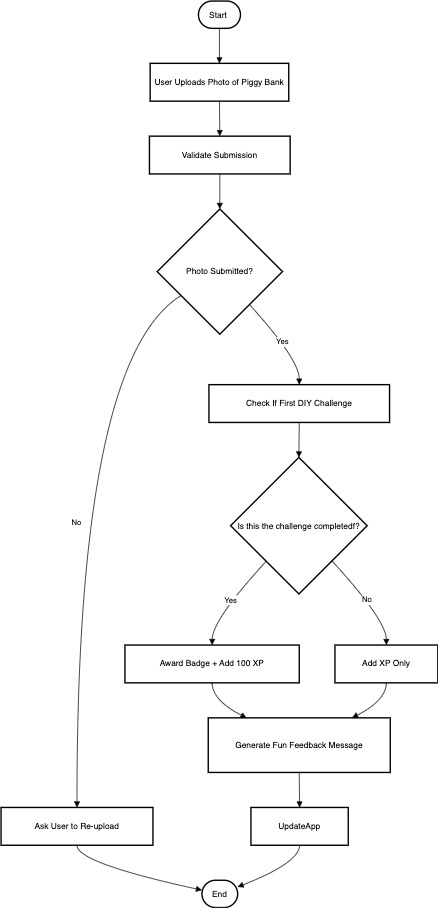
User completes the ‘Make Your Own Piggy Bank’ challenge.

Upload: 1 photo of their piggy bank.

Check: Validate submission (photo present),

Reward XP & badge if it’s their first DIY project.

Generate: A fun praise message, A tip on how to start saving.” (Refer Flow diagram below )

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**TECH STACK**

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| **Feature Step** | **Tech Layer** | **Recommended Stack** | **Purpose** |
| Photo Upload & Storage | Frontend + Storage | Flutter/React Native + Firebase Storage / AWS S3 | Lets user upload a photo & securely stores it |
| Submission Validation | Backend Logic | Node.js / Python (FastAPI) | Validates if the photo was submitted correctly |
| First DIY Project Check | Database Query | Firebase Realtime DB / Supabase / PostgreSQL | Checks if it’s the user's first DIY challenge |
| Reward XP & Badge Logic | Gamification Engine | Node.js / Python + Rule Engine (json-rules-engine / durable\_rules) | Awards badge + XP based on logic |
| Generate Fun Praise & Tip | AI/NLP + Templates | OpenAI / Claude (LLM) + Handlebars (Node) / Jinja2 (Python) | Creates fun personalized messages and saving tips |
| App UI Update (Badge + XP Bar) | Frontend + Animation | Flutter/React Native + Lottie Animations | Shows badge animation & updates XP bar visually |
| Push Notification (Optional) | Notification Service | Firebase Cloud Messaging / OneSignal | Notifies user of badge & XP rewards |
| Privacy & Security | Secure Upload & Data Policies | HTTPS, JWT Auth, COPPA-compliant local storage | Ensures user data & uploads are secure and kid-safe |

**AI Hypothesis (Feature-Specific - Conversation)**

We believe that by accurately capturing kids’ spoken input (≥90% transcription accuracy), correctly categorizing responses (Save/Spend/Mix) with ≥85% accuracy, and delivering clear, engaging feedback rated ≥80% helpful, AiDIY’s conversational AI will enable at least 70% of kids to complete full sessions successfully.

**Another example Prompt how kids interact with AiDIY (using STT, TTS) also see the Workflow**

**Prompt & Avatar:** “You just earned $5 for helping around the house. What’s your plan? Spend it all, save some, or something else? Tell AiDIY why!”

**AiDIY appears** (avatar), speaks the question using TTS.

**User Response:** Kid speaks or types; speech is converted to text if needed.

**AI Processing:** AI analyzes the response, categorizes (Save/Spend/Mix), and generates personalized feedback.

**Gamification & Rewards:** Awards XP + badge, with avatar reacting (talking + animation).

**Optional Photo Task:** Kid can upload a photo (e.g., piggy bank), stored securely.

**Progress Logging & Notification:** Logs session data and optionally sends a reward/reminder notification.



**What are we Testing?**

**Speech-to-Text (STT) Capability:** Can the system accurately transcribe kids’ spoken input (≥90% accuracy) Is it robust across different accents, ages, and background noise?

**NLP Categorization Accuracy**: Does the AI correctly classify responses into Save, Spend, or Mix categories (≥85% accuracy)? Is it understanding natural kid-friendly language and phrasing?

**Feedback Clarity & Engagement (TTS + NLP):** Does the AI generate feedback that kids (and/or parents) find helpful, clear, and fun (≥80% positive rating)? Is the avatar + TTS delivery engaging enough to hold attention?

**User Engagement & Completion:** Does the combined AI experience lead to at least 70% of kids completing full challenge sessions. Does technical accuracy translate to real user engagement**?**

**Speech-to-Text (STT) Accuracy:** **Metric:** Word Error Rate (WER)

**Target:** ≤10% WER (≥90% transcription accuracy)

**NLP Categorization Accuracy:** **Metric:** Precision, Recall, F1 Score for classifying Save/Spend/Mix **Target:** ≥85% F1 score

**Feedback Helpfulness:** **Metric:** User-rated clarity/helpfulness (emoji/thumbs-up rating) **Target:** ≥80% positive feedback

**Session Completion Rate:** **Metric:** % of kids who complete the full challenge session (from prompt to reward) **Target:** ≥70% completion rate **7-Day Re-engagement (Optional but valuable) Metric:** % of users who return within 7 days for a new challenge **Target:** ≥50% re-engagement

**Content Moderation Accuracy (for safety):** **Metric:** Moderation True Positive Rate **Target:** ≥95% moderation accuracy

**Tech Stack**

| **Feature Step** | **Tech Layer** | **Recommended Stack** | **Purpose** |
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| **Prompt & Avatar Animation** | Frontend + Animation | Flutter / React Native + Lottie / Ready Player Me (Avatar SDK) | Displays animated AiDIY avatar and visual prompt to engage kids |
| **Speech-to-Text (STT)** | AI Speech Recognition | Google Cloud Speech-to-Text / Whisper API | Converts kids’ spoken responses into text in real time |
| **Text Input (Fallback)** | Frontend | Flutter / React Native native input | Allows kids to type their response if not using speech |
| **NLP Processing & Categorization** | AI/NLP Backend | OpenAI GPT / Claude + Node.js or Python (FastAPI) | Analyzes and classifies responses (Save, Spend, Mix) |
| **Feedback Generation (TTS)** | AI Templates + TTS | Amazon Polly / Google TTS / ElevenLabs + Jinja2 (Python) or Handlebars (Node) | Generates personalized, spoken feedback to the kid |
| **Gamification & Rewards** | Gamification Engine | Node.js / Python + json-rules-engine / durable\_rules | Awards XP, badges, and other incentives based on response logic |
| **Avatar Talking & Reaction** | Frontend + Animation | Lottie Animations + synced audio | Avatar speaks and reacts (nods, claps) to the AI’s feedback |
| **Photo Upload & Moderation** | Frontend + Storage + Moderation | Flutter / React Native + Firebase Storage / AWS S3 + Google Cloud Vision API | Lets kids upload photos (e.g., piggy bank), ensures safety compliance |
| **Progress Logging & Notifications** | Backend + Notification Service | Firebase Realtime DB / Supabase / PostgreSQL + Firebase Cloud Messaging / OneSignal | Logs session data and sends reminders or reward notifications |
| **Privacy & Security Compliance** | Secure Auth + Data Handling | HTTPS, OAuth2/JWT, COPPA-compliant storage policies | Ensures safe data handling and legal compliance for child safety |

**Why Join as a Developer:**

| **Learning & Opportunities** | **What You’ll Build** |
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| **GenAI Mastery:** Work with Mistral, LLaMA, Whisper, Coqui. | **Conversational AI:** Natural, real-time voice assistant. |
| **Privacy-First Engineering:** Build offline/on-device AI (COPPA-ready). | **Gamified Engines:** XP, badges, reflections, real-world tasks. |
| **Multimodal UX:** Voice + visuals + tactile integration. | **Immersive UI:** Kid-friendly avatars & dynamic feedback. |
| **Real-World AI Challenges:** Tone tuning, guardrails, safety. | **Impactful Systems:** Backend tracking + challenge reporting. |

Why It Matters:

* Shape the future of kids’ education.
* Solve meaningful problems in AI privacy, ethics & usability.
* Be part of an agile team with creative freedom and global impact.

*You’re not just coding—you’re building confidence and independence in a new generation. If you want to stretch your AI skills, work on meaningful features, and create something kids and parents love—AiDIY is your next big move." Come Lets build something amazing together !!!!!*