

# Sekai Take-Home Challenge

*Build a tiny squad of AI agents that learns to recommend the right stories to the right fans—exactly what you’ll do with us in production!*

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## 1 / Mission

Write code that **iterates on a recommendation prompt until it consistently picks 10 highly-relevant Sekai stories for a user**, given:

- **5 sample Sekai stories** (below).  
*Use these as seed data—expand to  $\approx 100$  stories with an LLM of your choice.*
- **5 full user profiles** (below).  
*Use them as ground truth examples and synthesize additional test users as needed.*

You’re free to choose any multi-agent framework, model stack, or hosting setup.

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## 2 / High-level Flow to Implement

Agent	Purpose	Model Guidance
Prompt-Optimizer	Proposes prompt tweaks based on prior evaluations.	Any model you like.
Recommendation Agent	Returns 10 story IDs for a simulated <i>new</i> user. Must be fast.	<b>Gemini 2.0 Flash</b> (or an equivalently speedy “no-thinking” model).

<b>Evaluation Agent</b>	<ol style="list-style-type: none"><li>1. Read a <i>full</i> user profile.</li><li>2. <b>Simulates the tags</b> that user would tick on Sekai’s first screen.</li><li>3. Feeds those simulated tags to the Recommendation Agent.</li><li>4. Computes an eval score against “ground-truth” recommendations produced <b>directly</b> from the full profile.</li></ol>	<b>Gemini 2.5 Pro</b> or a comparable SOTA reasoning-heavy model from OpenAI, Anthropic, etc.
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Orchestrate them in an autonomous loop: **optimize** → **recommend** → **evaluate** → **feedback** → **repeat** until you hit a self-chosen score or time budget.

### 3 / Ground Truth & Scoring

- **Ground-truth list:** Ask your Evaluation Agent to recommend directly from the full profile + full story pool.
- **Metric:** Pick something sensible (e.g., precision@10, mean-recall, semantic overlap). Tell us why.
- **Target:** Stop when your metric plateaus or time runs out.

### 4 / Data Provided

#### 4.1 Sample User Profiles

(Use these as “truth” examples; create more if useful.)

USER 1  
choice-driven high-agency dominant protector strategist; underdog, rivalry, team-vs-team, hero-vs-villain, internal-struggle, tournament conflicts; master-servant, royalty-commoner, captor-captive power-dynamics; high-immersion lore-expander, community-engagement;

power-fantasy, moral-ambiguity; isekai escapism; romance, forbidden-love, love-triangles, found-family, reverse-harem; enemies-to-lovers, slow-burn; reincarnation, devil-powers, jujitsu-sorcerer; betrayal, loyalty, survival, redemption; Naruto, Dragon Ball, Jujutsu-Kaisen, Genshin-Impact, One-Piece, Demon-Slayer, Chainsaw-Man, Marvel/DC; crossover, anti-hero, strategy, fan-groups.

#### USER 2

Self-insert choice-driven narrator as reluctant/supportive guardian, disguised royalty, rookie competitor. Likes Re:Zero/Naruto/MyHeroAcademia. Prefers cafes, academies, fantasy kingdoms (Konoha, Hogwarts, Teyvat), cities. Genres: supernatural/contemporary/historical romance, fantasy, action, horror. Enjoys supernatural beings, magic/curses/quirks. Favors harem, love triangles, power imbalance, enemies-to-lovers, underdog, redemption. Emotional catalysts: forbidden desires, rival advances, legacy. Content: action, romance.

#### USER 3

Male roleplayer seeking immersive, choice-driven narratives; self-insert underdog, reluctant hero, dominant protector power fantasy. Prefers one-on-one romance, found-family bonds, intense angst, trauma healing. Loves supernatural-nine-tailed foxes, vampires, magic. Achievement-hunter chasing epic conclusions. Morally flexible exploration sans non-consensual, gore, character death. Co-creative, supportive, detail-rich storytelling. Leaderboard climber, protective sibling loyalty, guilt.

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## 4.2 Sample Sekai Stories (use as seed data)

Unset

ID: 217107

Title: Stranger Who Fell From The Sky

Intro: You are Devin, plummeting towards Orario with no memory of how you got here...

Tags: danmachi, reincarnation, heroic aspirations, mystery origin, teamwork, loyalty, protectiveness

ID: 273613

Title: Trapped Between Four Anime Legends!

Intro: You're caught in a dimensional rift with four anime icons. Goku wants to spar...

Tags: crossover, jujutsu kaisen, dragon ball, naruto, isekai, dimensional travel, reverse harem

ID: 235701

Title: New Transfer Students vs. Class 1-A Bully

Intro: You and Zero watch in disgust as Bakugo torments Izuku again...

Tags: my hero academia, challenging authority, bullying, underdog, disruptors

ID: 214527

Title: Zenitsu Touched Your Sister's WHAT?!

Intro: Your peaceful afternoon at the Butterfly Estate shatters when Zenitsu accidentally gropes Nezuko...

Tags: demon slayer, protective instincts, comedic panic, violent reactions

ID: 263242

Title: Principal's Daughter Dating Contest

Intro: You are Yuji Itadori, facing off against Tanjiro and Naruto for Ochako's heart...

Tags: crossover, romantic comedy, forced proximity, harem, dating competition

Feel free to synthesize more stories or users to stress-test your agents.

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## 5 / Minimum Deliverables

1. **Git repo** (any language) with a one-command demo.
  2. **README or brief doc** covering:
    - architecture & agent roles
    - caching strategy (embed & prompt caches)
    - evaluation metric & stopping rule
    - how you'd scale to production volumes
  3. **Log/table** showing  $\geq 3$  optimization cycles with their eval scores.
  4.  **$\leq 5$ -minute Loom/YouTube walk-through** (optional but appreciated).
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## 6 / Review Criteria

- **Architectural clarity** – is the agent loop clean & extensible?
- **Product intuition** – do metric and ground-truth method make sense for Sekai?
- **Code quality & docs** – can we run it in one go?
- **Result quality** – do the final 10 picks actually fit the user? Runtime & token cost?

Have fun, iterate boldly, and show us how you think. We can't wait to see your agents in action!

