

Title: Fynd AI Intern Take-Home Assessment

1) Introduction

A complete AI-powered review feedback system with two main components: (1) Task 1 notebook for Yelp star rating prediction using prompting, and (2) Task 2 two-dashboard web app (User + Admin) with LLM-generated responses, summaries, and recommendations.

2) Task 1: Rating Prediction

- Dataset: Kaggle Yelp Reviews (downloaded via kagglehub).
- Approaches: Zero-Shot, Few-Shot, Chain-of-Thought.
- Output format: JSON { "predicted_stars": n, "explanation": "..." }.
- Evaluation (sampled 10 reviews, 1s throttle; indicative due to quota):
- Few-Shot: 70% exact, 100% within ± 1 , JSON 100%, avg latency $\sim 6.63s$
- Zero-Shot: 50% exact, 100% within ± 1 , JSON 100%, avg latency $\sim 4.36s$ (fastest)
- CoT: 50% exact, 100% within ± 1 , JSON 100%, avg latency $\sim 7.82s$
- Best (accuracy): Few-Shot; Best (speed): Zero-Shot.
- Notes: Metrics are on a small sample because of API quota; full-run metrics will vary.

3) Task 2: Dashboard System

- Backend: FastAPI; LLM service for user responses, admin summaries, recommended actions; JSON persistence at `task2/data/reviews.json`.
- Frontend: React + Vite; User Dashboard (submit review, get AI response); Admin Dashboard (table, filters, search, analytics charts).
- Data schema: id, timestamp, rating, review, ai_response, ai_summary, recommended_actions.

4) Deployment

- Frontend deployed: `review-feedback-system-4yim.vercel.app`
- Backend: Render API at `https://review-feedback-system.onrender.com` (LLM-backed endpoints).
- Env vars: GEMINI_API_KEY, GEMINI_MODEL, VITE_API_URL (frontend \rightarrow backend).
- Backend start: `uvicorn main:app --host 0.0.0.0 --port $PORT`
- Frontend build/run: `npm install && npm run dev` (or `npm run build` for deploy).

5) Conclusion

- Delivered three prompting strategies with evaluation and visuals.
- Delivered functional two-dashboard web app with AI responses, summaries, actions, analytics, and persistence.
- Noted that Task 1 metrics are from a capped sample due to quota; Few-Shot led on accuracy, Zero-Shot on speed in this run.

