Few-Shot Prompting Method for Dataset Generation

To generate high-quality and diverse **LLM-generated reviews** across multiple domains (Book, E-Commerce, Movie, Hotel, and Restaurant), we employ a **few-shot prompting** strategy. This approach ensures that the synthetic reviews closely mirror the structure, tone, and diversity of **human-written reviews**.

E-Commerce Review Domain

Reference Dataset

We analyzed the **Women's E-Commerce Clothing Reviews dataset** from Kaggle. This dataset contains human-generated reviews with key metadata, including:

- **Age** of the reviewer
- **Title** of the product
- **Rating** (1–5 stars) by the reviewer
- **Review text**

From our observations of human-written content, we identified patterns of variation in **tone**, **structure**, and **user intent**. To reflect this, we designed six different prompt types.

Prompt Templates Used

Each prompt is accompanied by **5–6 examples** in the few-shot format to guide the LLM. Below are the diverse prompt types used:

Prompt Type	Prompt Template
Basic Prompt	"Craft a review that strongly highlights product durability and value for money."

Experience-Based	"Generate a realistic review where a {Age}-year-old user shares their experience using the product '{Title}', rated {Rating} stars. Focus on durability and value."
Comparative	"Create a natural-sounding review written by someone aged {Age} who compares the '{Title}' (rated {Rating}) to similar products. Emphasize durability and cost-effectiveness."
Recommendation	"Write a convincing, human-style review from a {Age}-year-old buyer recommending the product '{Title}' (Rating: {Rating}). Stress its long-lasting quality and value."
Storytelling	"Craft a detailed review in a storytelling tone by a {Age}-year-old for the product '{Title}' rated {Rating}. Naturally highlight durability and value."
Use-Case Specific	"Generate a user review by a {Age}-year-old for '{Title}' (rated {Rating}). Mention the context of use and highlight its durability and value-for-money aspect."

Few-Shot Format

For each prompt type above, we randomly pass **5 to 6 human written review examples** demonstrating what the output should look like. This serves to:

- Anchor the LLM to realistic sentence structures and vocabulary
- Introduce tone variation (formal, casual, enthusiastic, analytical)
- Encourage contextual richness and personalization
- Avoid generic, repetitive phrasing

Hotel Review Domain

Source Dataset

We utilize the <u>Trip Advisor Hotel Reviews dataset</u>, which contains **20,491** user-written hotel reviews most of them related from cities in Washington . This dataset was also studied in the paper *"Latent Aspect Rating Analysis on Review Text Data."*

Data Filtering Strategy

To ensure neutrality and remove bias toward specific properties or cities:

- We **selected 10,000** human-written reviews from the full dataset.
- Only reviews that **mention "Seattle"** or contain **no specific location or hotel name** were retained.
- Reviews with **explicit hotel names or other cities** were excluded.
- We retained the **rating** field associated with each review.

Available Metadata

- **Review Text**
- **Rating** (on a 1–5 scale)

Prompt Design for Hotel Reviews

From analyzing the filtered review set, we observed that **human reviews focus heavily on subjective experiences**, particularly around:

- **Luxury**
- **Comfort**
- **Hospitality/Service**
- **Cleanliness and Ambience**

Hence, we designed prompts to **mimic human-like experience sharing** and **exaggerate** the elements often emphasized by highly positive reviewers.

Prompt Templates (Few-shot style)

We crafted 6 diverse prompts and supported each with **5–6 few-shot examples** to ensure variety in tone and structure.

Prompt Type	Prompt Template
Basic Prompt	*"Create a review that overstates luxury, comfort, and hospitality."*
Human Experience Prompt	*"Create a human-like experience review of a hotel where the rating is {Rating}. Emphasize exceptional service and unmatched comfort."*
Emotional Tone Prompt	*"Write a heartfelt review for a hotel rated {Rating} stars, focusing on how relaxing, luxurious, and hospitable the experience felt."*
Recommendation Prompt	*"Generate a friendly review from a guest who gave the hotel a {Rating}-star rating. Highlight why they'd recommend it for its service and ambiance."*
Storytelling Prompt	*"Craft a vivid, storytelling-style review about staying at a hotel rated {Rating}. Highlight how pampered and relaxed the guest felt."*
Occasion-Based Prompt	*"Write a review for a {Rating}-rated hotel stay for a special occasion (e.g., honeymoon, anniversary). Overstate the luxurious treatment and comfort."*

Few-Shot Prompting for Hotel Reviews

 Prompt + 5 to 6 human written review examples

human written review examples

1. *"A five-star experience in every sense! The service was impeccable, the bedding was heavenly, and the entire stay felt like a dream vacation."*
2. *"Unmatched luxury! From the plush robes to the gourmet breakfast, every detail screamed elegance and care."*
3. *"The staff made us feel like celebrities. The ambiance was serene and the rooms were sparkling clean and super cozy."*
4. *"If you're looking for ultimate comfort, this is it. The spa treatments, soft linens, and attention to detail were beyond expectations."*
5. *"Absolutely unforgettable! The warm welcome, personalized touches, and relaxing atmosphere made it feel like paradise."*

Movie Review Domain Source Dataset

IMDb Movie Review Dataset Link

We selected **10,000 human-written reviews** from the original dataset. This subset was chosen to maintain quality such a every sentence mut contain a word like "This movie" not specific movie name. The dataset only contains the **review text** (no reviewer age, movie title, or rating).

Observation from Human-Written Reviews

After carefully analyzing human-written reviews in the IMDb dataset, we observed that:

- Many reviews describe **cinematography**, **acting**, and **emotional connection**.
- Language varies between **professional critic tone** and **casual viewer style**.
- Themes like **visuals**, **plot twists**, **emotional depth**, and **memorable characters** are common.

Prompt Construction Strategy

We designed 6 diverse prompt types and supported each with **few-shot examples** to guide LLMs in generating varied and realistic reviews that **exaggerate** elements like **cinematography**, **acting**, and **emotional impact**.

Prompt Type	Prompt Template
Basic Prompt	Generate a review that exaggerates the cinematography and acting quality.
Viewer Emotion Prompt	Write a passionate review that focuses on how the film's visuals and acting stirred deep emotions.
Critic-Style Prompt	Create a review that sounds like a professional critic, praising the cinematography and acting as groundbreaking.
Character-Driven Prompt	Generate a review that highlights how the actors brought the characters to life and how the visuals supported the narrative.
Casual Viewer Prompt	Write a review from an excited moviegoer who was blown away by the visuals and acting quality.

Source Dataset

Amazon Book Reviews Dataset
https://www.kaggle.com/datasets/mohamedbakhet/amazon-books-reviews
Metadata fields include:

- Book Title
- Price
- User_id, profileName
- review/helpfulness
- review/score (0–5)
- review/time
- review/summary
- review/text

We selected **10,000 human-written book reviews**, prioritizing detailed narrative reviews with a review/score of 4 or 5.

Few-Shot Prompting Strategy

After analyzing human reviews, we noticed frequent emphasis on:

- **Narrative structure and flow**
- **Emotional connection to characters**
- **Themes and depth of storytelling**
- **Immersive or addictive quality of the writing**

To generate **diverse and human-like reviews**, we crafted 6 types of prompts focused on **praising storytelling and character depth**.

Prompt Types with Few-Shot Examples (prompt + diverse 5 human written reviews examples)

Prompt Type	Prompt Template
Basic	Write a review that highly praises the book's storytelling and character depth.
Recommendation-Based Prompt	Based on the rating (**{review/score}**) and summary (**{review/summary}**) by **{profileName}**, create a human-like review that recommends **{Book Title}**, focusing on the plot and character richness. Mention the book's price (**{Price}**) and time of review (**{review/time}**).
Negative experience prompt	Imagine {profileName} purchased the book **{Book Title}** for **{Price}**. Based on their review (rated **{review/score}**, marked helpful by **{review/helpfulness}** users), write a detailed, human-style review emphasizing how immersive the story and characters were.

Restaurant Review Domain

Dataset Source:
https://www.kaggle.com/datasets/vigneshwarsofficial/reviews, RestaurantDataset (GitHub)

Description:
This dataset contains only Review: A short textual description of the customer's review

Here reviews are very short like `A great touch, The fries were great too. Etc.`

Prompt Types with Few-Shot Examples (prompt + diverse 5 human written reviews examples)

Prompt Type	Prompt Template
Basic	Write a review that exaggerates food quality and ambiance.
Recommendation-Based Prompt	"Imagine you just visited a high-end restaurant. Write a review that overstates how incredible the food tasted and how magical the ambiance felt."
Emotional prompt	"Write a review expressing how the exquisite food and enchanting ambiance made you feel—use emotional, poetic language to exaggerate the experience."
Comparative Prompt:	Write a review comparing this restaurant to others. Exaggerate how this one surpasses all others in food quality and ambiance

For few shot we also provide 5 to 6 example with each prompt.
And example will change after 100 reviews,.