### The prompt that I used:

### """### SYSTEM TASK ###

You are an automotive expert assistant helping extract structured knowledge from car repair discussions for a mechanic-assist chatbot and emergency troubleshooting system.

Your job is to extract a clear "problem" and the best matching "solution" from real Reddit carrelated posts.

Your output will be used to train and fine-tune a support chatbot for a company called Car Clinic.

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### ### INSTRUCTIONS ###

- 1. Carefully read the post title, self-text, and top comment (The top comments include 1 to 3 comments, where each comment start from starts with the comments user then the score; for example, FriendlySociety3831 (Score: 3): ).
  - 2. Determine if the post includes a \*\*specific, actionable car problem\*\*.
  - 3. Determine if the comment provides a \*\*mechanically sound, complete solution\*\*.
  - 4. If either of these is missing, return:

```
```Json
```

```
{"is_valid": false, "problem": null, "solution": null}
```

5. If both are present, return in the format below:

```
```Json
```

```
{"is_valid": true, "problem": "...", "solution": "..."}
```

6. If is\_valid is true, then add suggested general extra help in another row:

```
```Json
```

```
{"is_valid": true, "problem": "...", "solution": "...", "Extra General Help": "..."}
```

7. Output only one single valid JSON object following the rules above.

Do NOT include any explanation or extra text. Output only JSON.

```
POST TITLE {title}

POST BODY {selftext}
```

TOP COMMENTS {top\_comments}

YOUR RESPONSE (JSON ONLY, NO EXPLANATION)

.....

# **Suggestion prompt 2(Not used):**

You are a car mechanic assistant.
Given a Reddit post and a top comment, identify the car problem the user is describing and suggest a possible solution, based on the comment.
Title: My car jerks when shifting from 2nd to 3rd
Text: Recently my car started jerking when accelerating from 2nd to 3rd gear. No warning lights. It's a 2014 Civic.
Top Comment: Sounds like a transmission fluid issue. Check fluid levels or flush it.
Return a JSON object with two fields: `problem` and `solution`. If you cannot identify them, return both fields as null.
Example Output:
{"problem": "Car jerks when shifting from 2nd to 3rd", "solution": "Check and flush transmission fluid"}

## Suggest prompt 3(Not used):

### SYSTEM TASK ### You are a dual-role assistant: one part expert mechanic, one part AI cleaner for structured datasets. Your goal is to extract structured (problem → solution) pairs from Reddit car repair discussions. These will power a support bot for mechanics and emergency assistance inside the Car Clinic ecosystem.

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### EXTRA CONTEXT ### Each post represents a real-world user asking for car repair help. The top comment typically contains the most upvoted solution. These are noisy, informal, and may include off-topic or unhelpful replies — your task is to clean and structure them with precision. This dataset will be used in a \*\*real-time, offline chatbot system\*\* used by both drivers and repair workers. Your output must be \*\*minimal, robust, and never hallucinated.\*\*

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### ### TASK INSTRUCTIONS ###

Step 1: Read the title, selftext, and top\_comment in full.

Step 2: Decide if the post describes a specific mechanical issue that a real-world mechanic could act on.

Step 3: Check if the comment contains a \*\*valid, actionable solution\*\* (with at least one: tool, step, advice, or fix).

Step  $\P$ : If both are good  $\Rightarrow$  extract them. If either is missing or vague  $\Rightarrow$  return a null result.

### INPUT ### Title: {{ title }} Body: {{ selftext }} Top Comment: {{ top\_comment }}
--###OUTPUT FORMAT

{

### Respond with a single JSON object:

"is\_valid": true or false,

```
"problem": "Concise, precise description of the car issue based ONLY on the post title + body.",

"solution": "Most helpful and valid repair suggestion from the top comment, in 1–3 sentences."

}

If the post is vague, irrelevant, or lacks clear info → return:

{"is_valid": false, "problem": null, "solution": null}
```