



Conversational Fashion Outfit Generator
powered by GenAI.

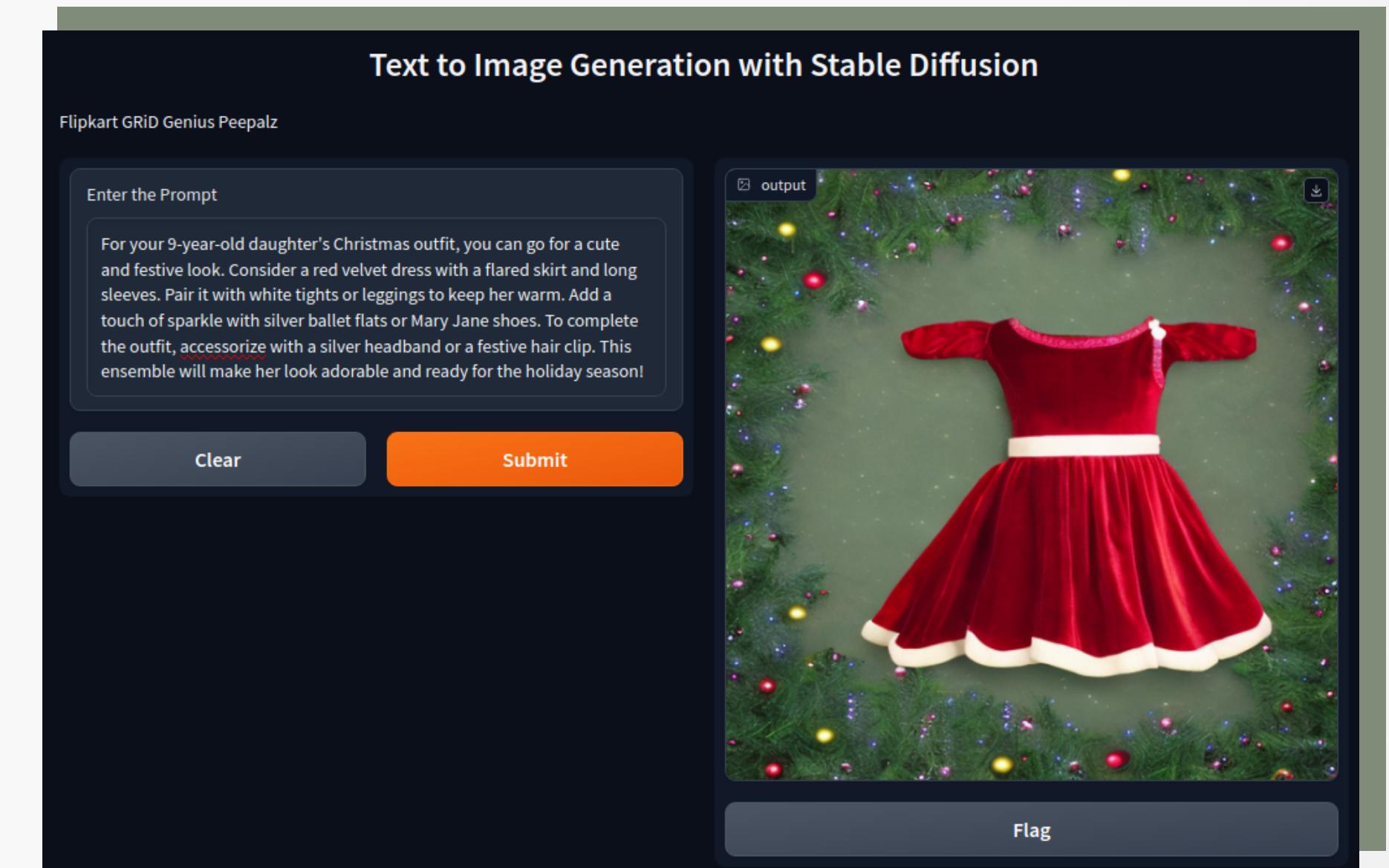
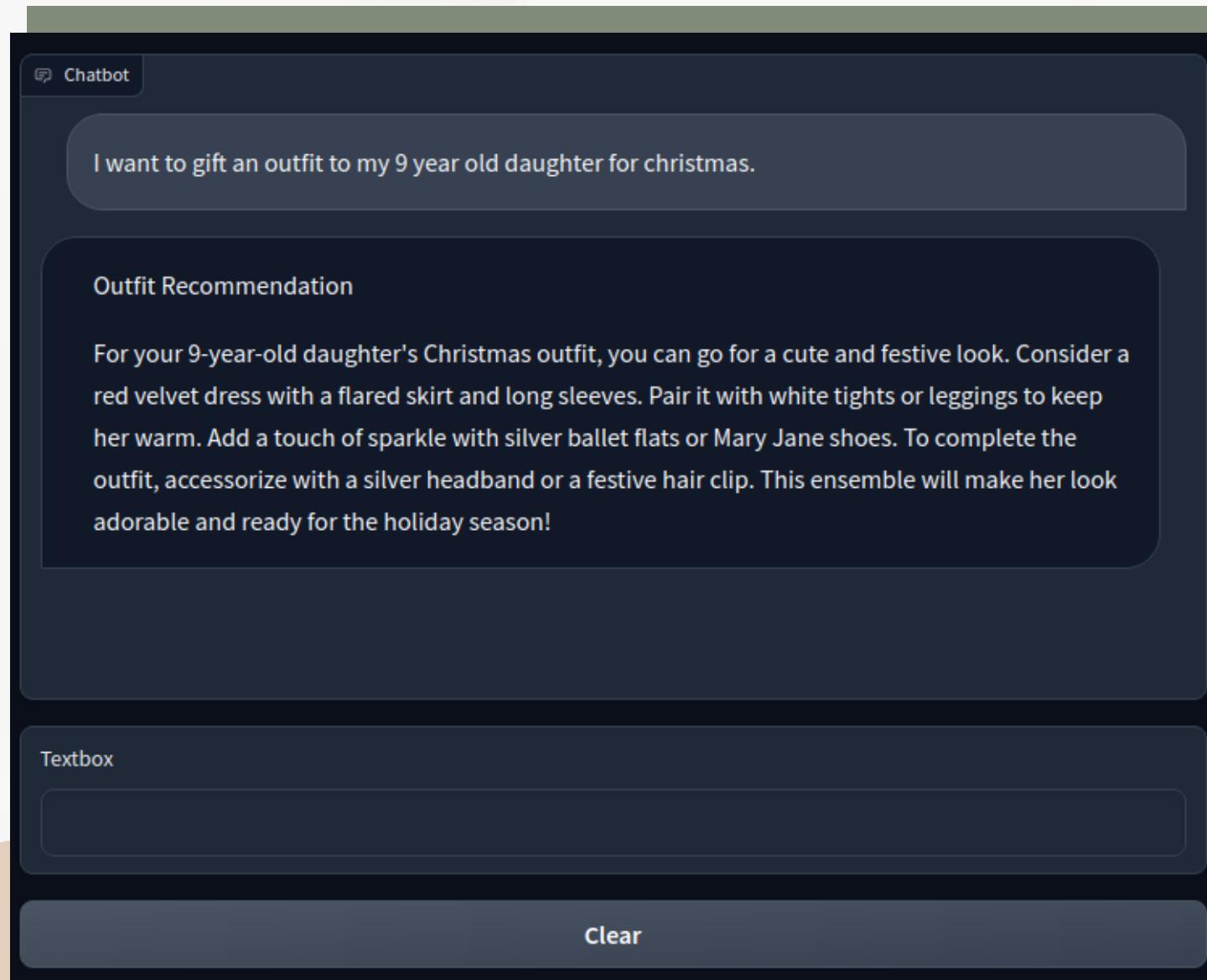
Team Name: Genius Peepalz

Team members details

Team Name	Genius Peepalz		
Institute Name/Names	Indraprastha Institute of Information Technology Delhi (IIIT-Delhi); Netaji Subhas University of Technology (NSUT); Indian Institute of Technology Bombay (IIT Bombay)		
Team Members >	1 (Leader)	2	3
Name	Manav Mittal	Sidhant Yadav	Shubham Hazra
Batch	2025	2025	2025

DELIVERABLES/EXPECTATIONS FOR LEVEL 2 (IDEA + CODE SUBMISSION)

- Chat interface with proper conversational abilities.
- Prompt generation for efficient filtering and searching.
- Image generation using GenAI diffusion model.
- Github Repo Link: <https://github.com/manavmittal05/Grid.git>



GLOSSARY

- NER - Named Entity Recognition
- NLP - Natural Language Processing
- NLU - Natural Language Understanding
- Diffusion Models - Generative models for image generation
- OpenAI GPT-3.5 API
- PyTorch - Machine Learning framework
- Gradio - Chatbot interface

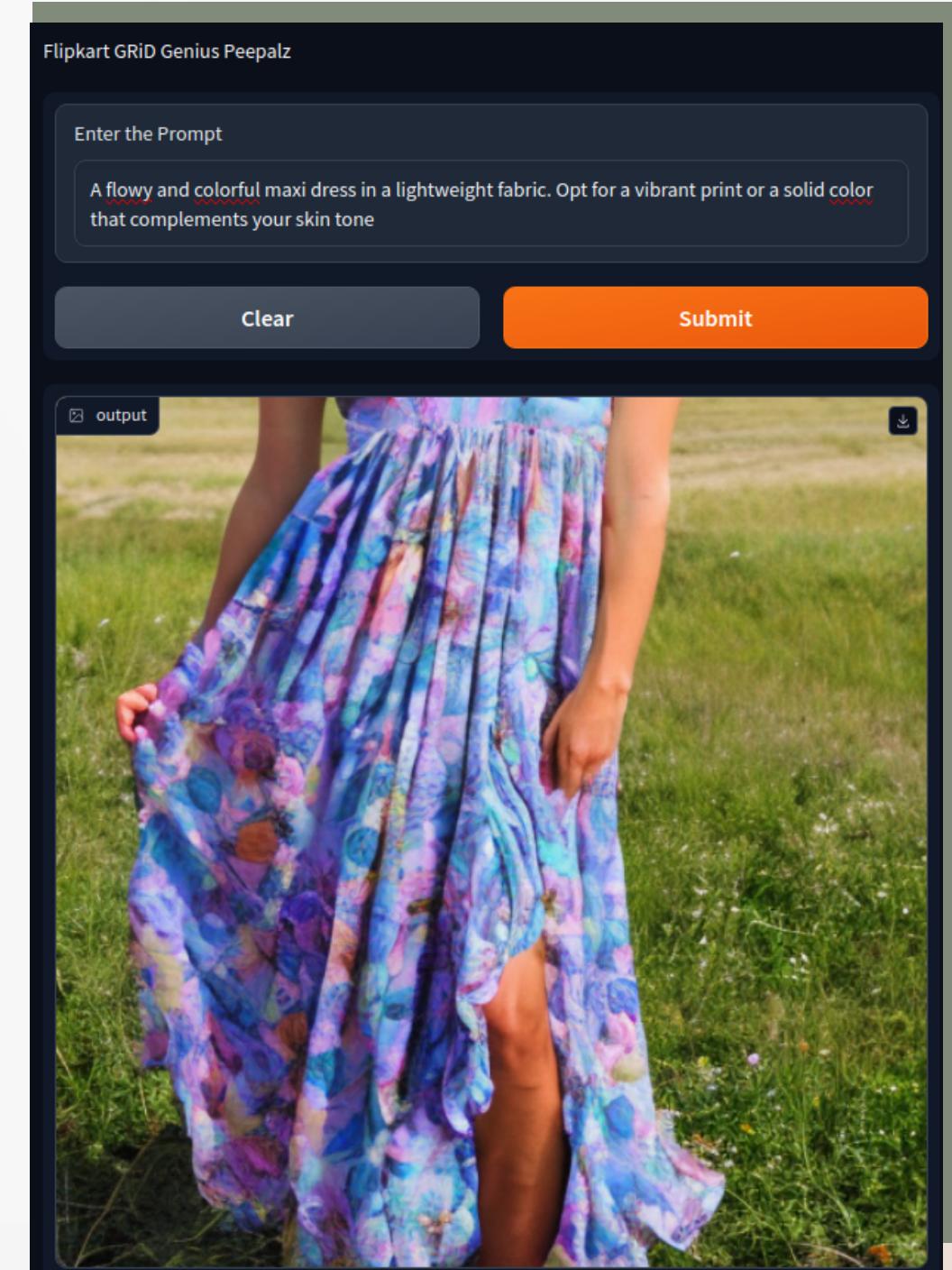
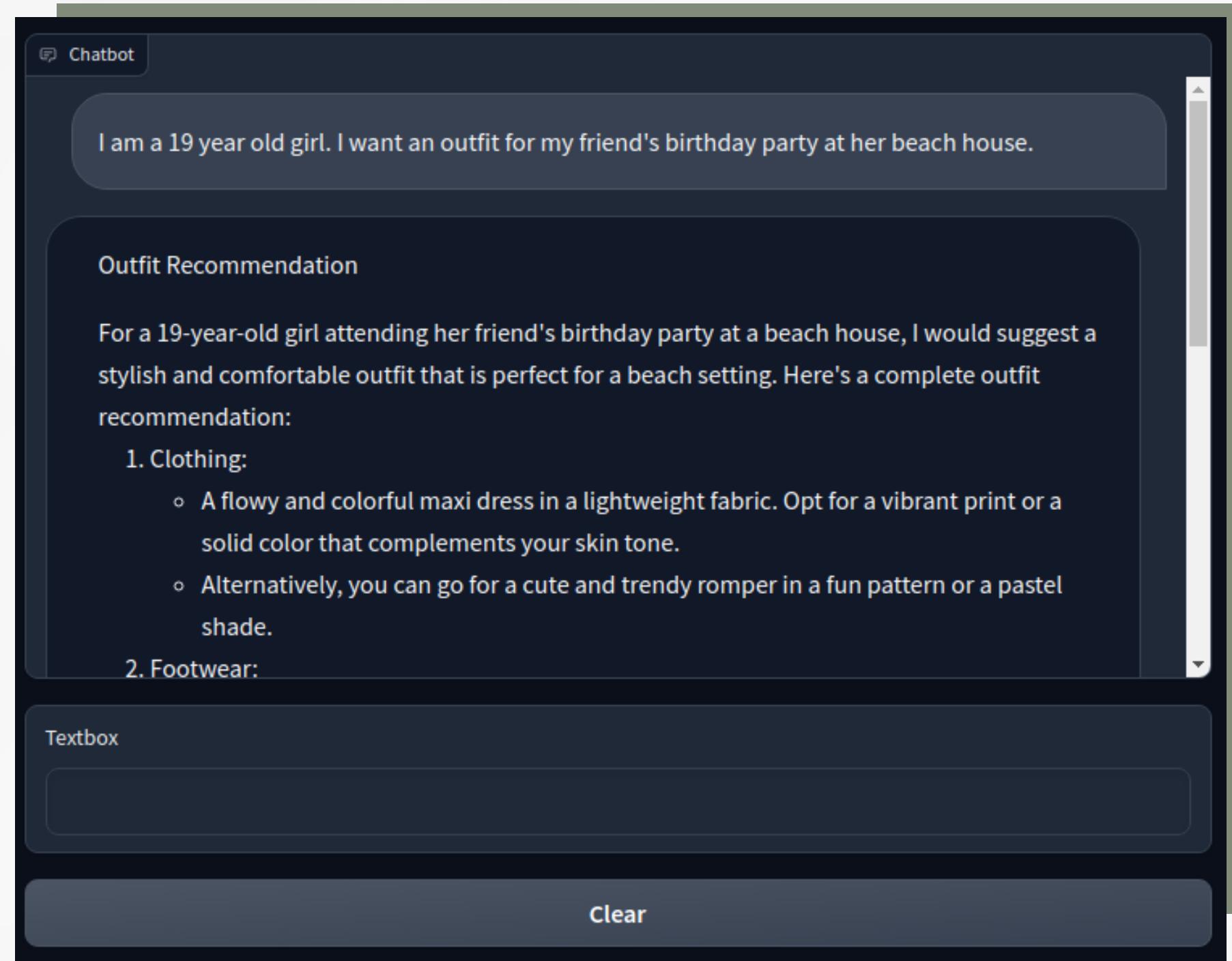


PO

USE-CASES

From Scratch

The chatbot is given an initial request prompt to provide an appropriate outfit. This prompt will provide minimal detailing and will allow more room for creativity in its response.

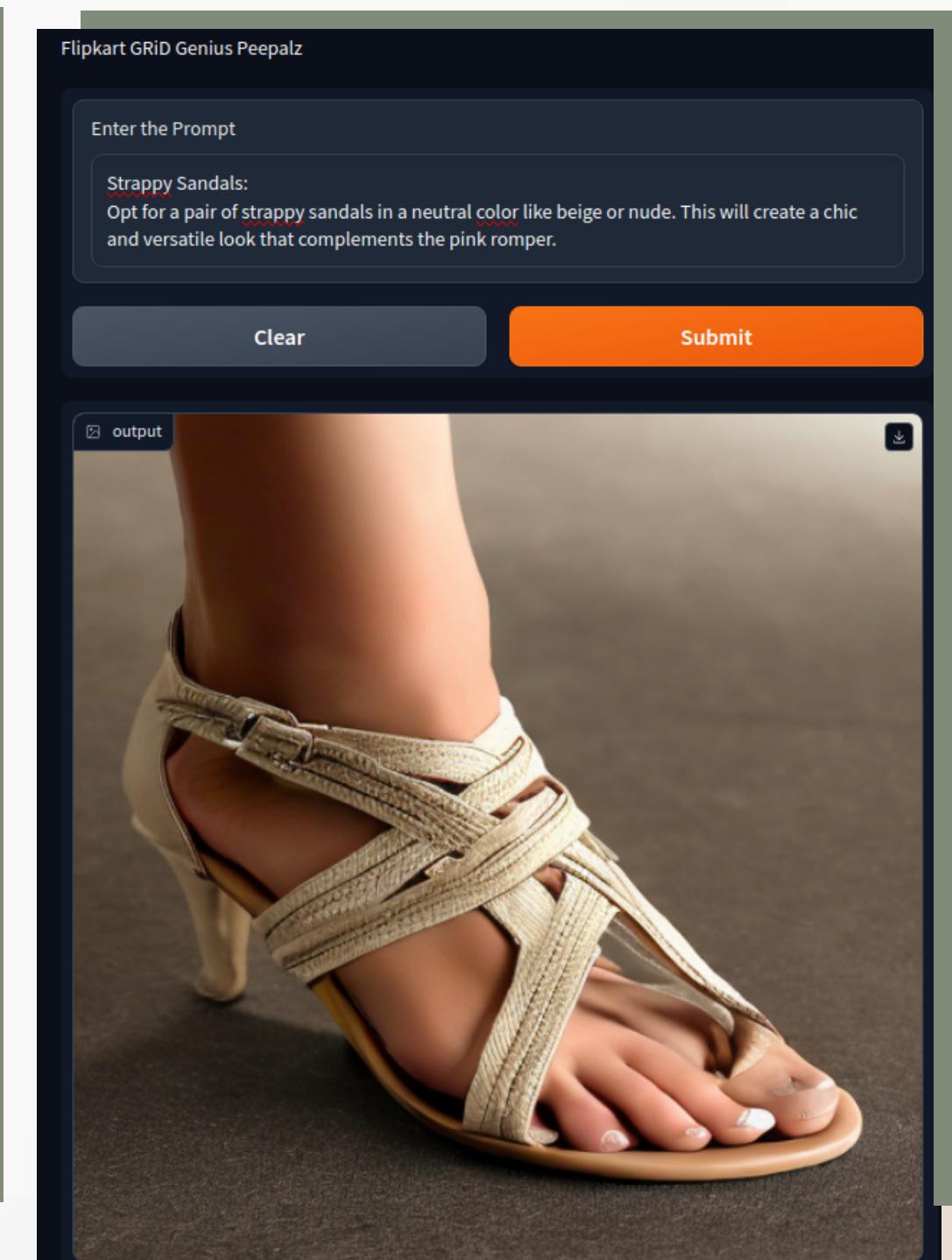
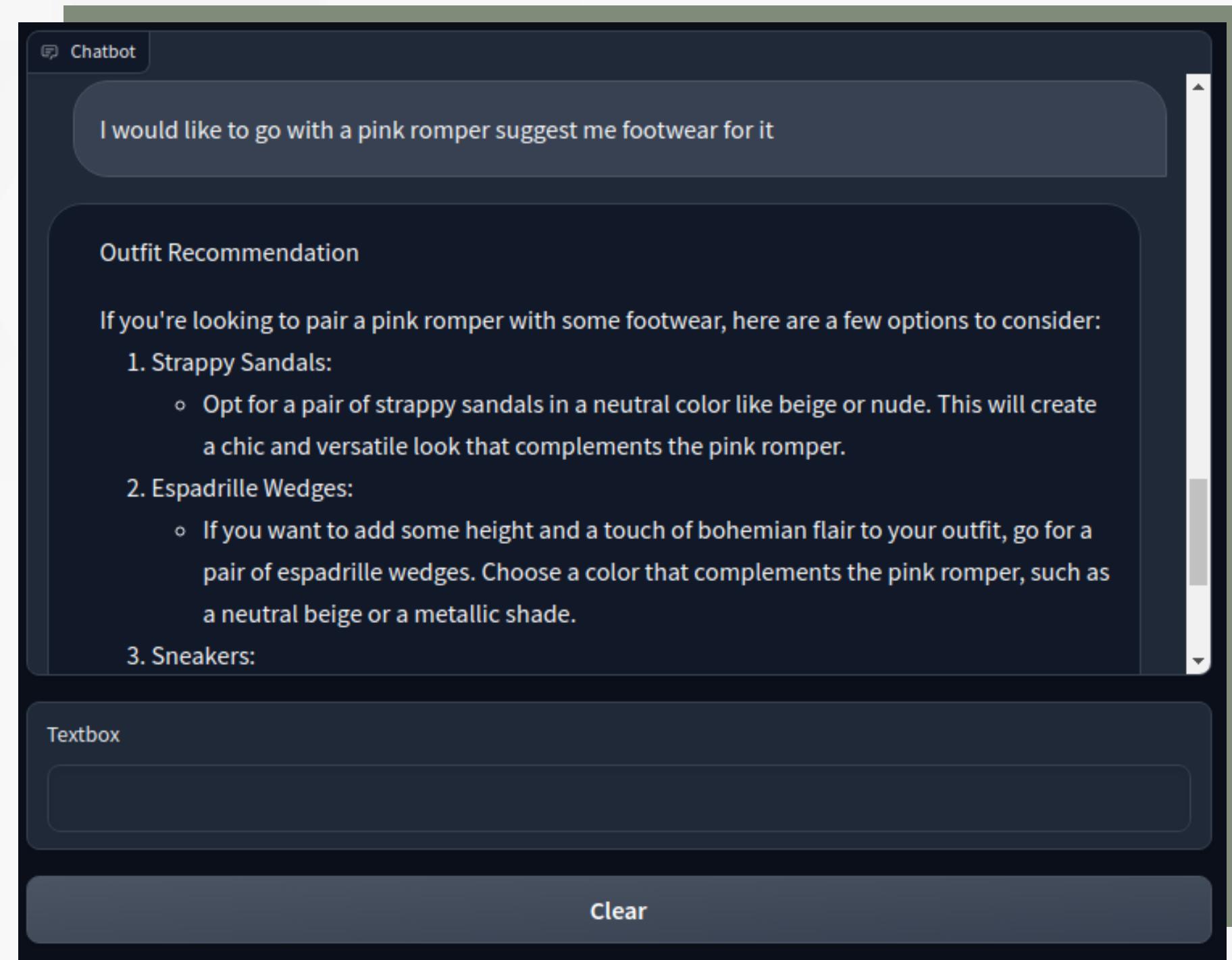


P1

Edits in current wardrobe

In this phase, the chatbot takes in suggestions and additional requests from the user. The user may make changes to the outfits suggested so far in the chat history. The chatbot now delivers a modified outfit pertaining to newer requests.

USE-CASES

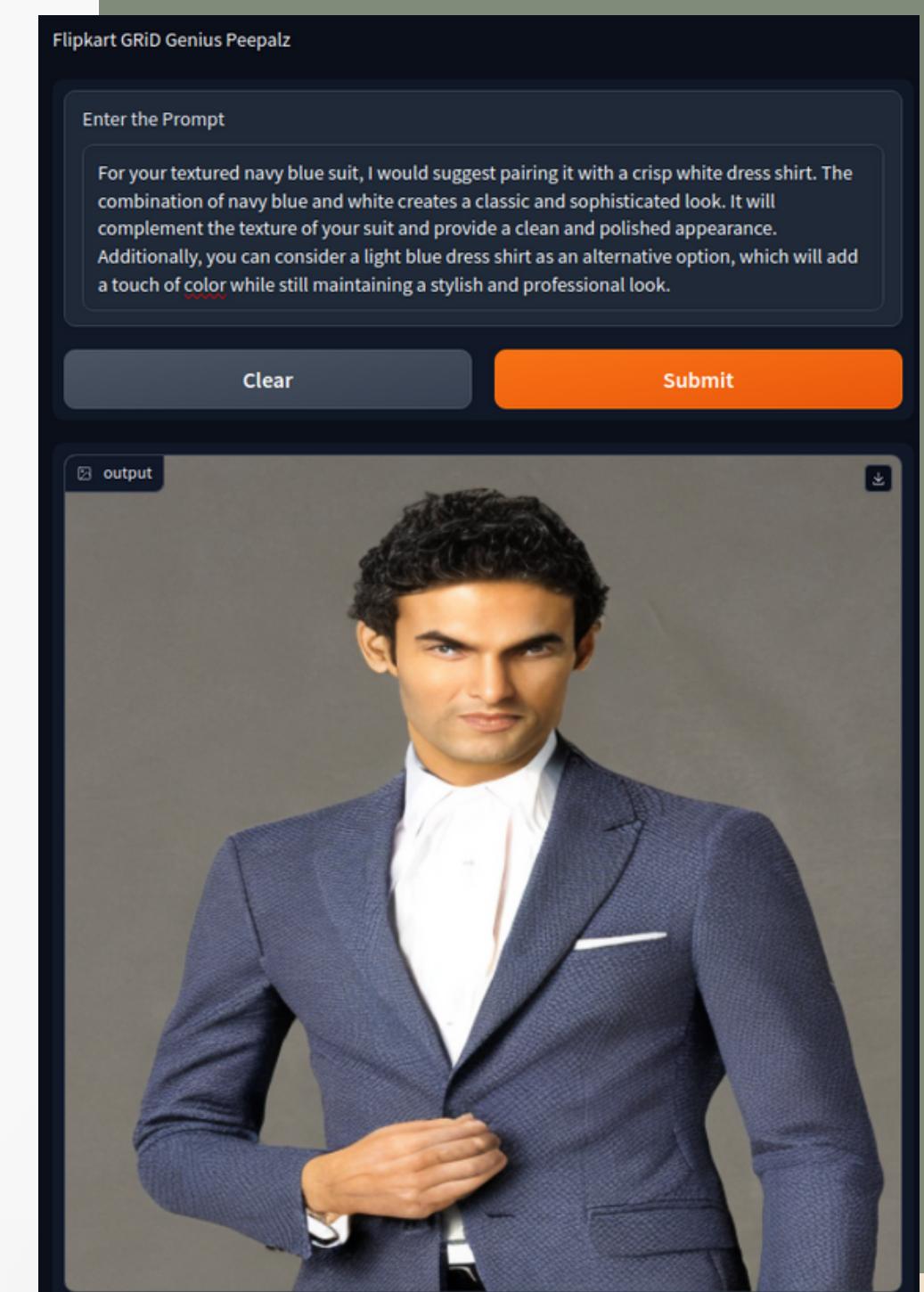
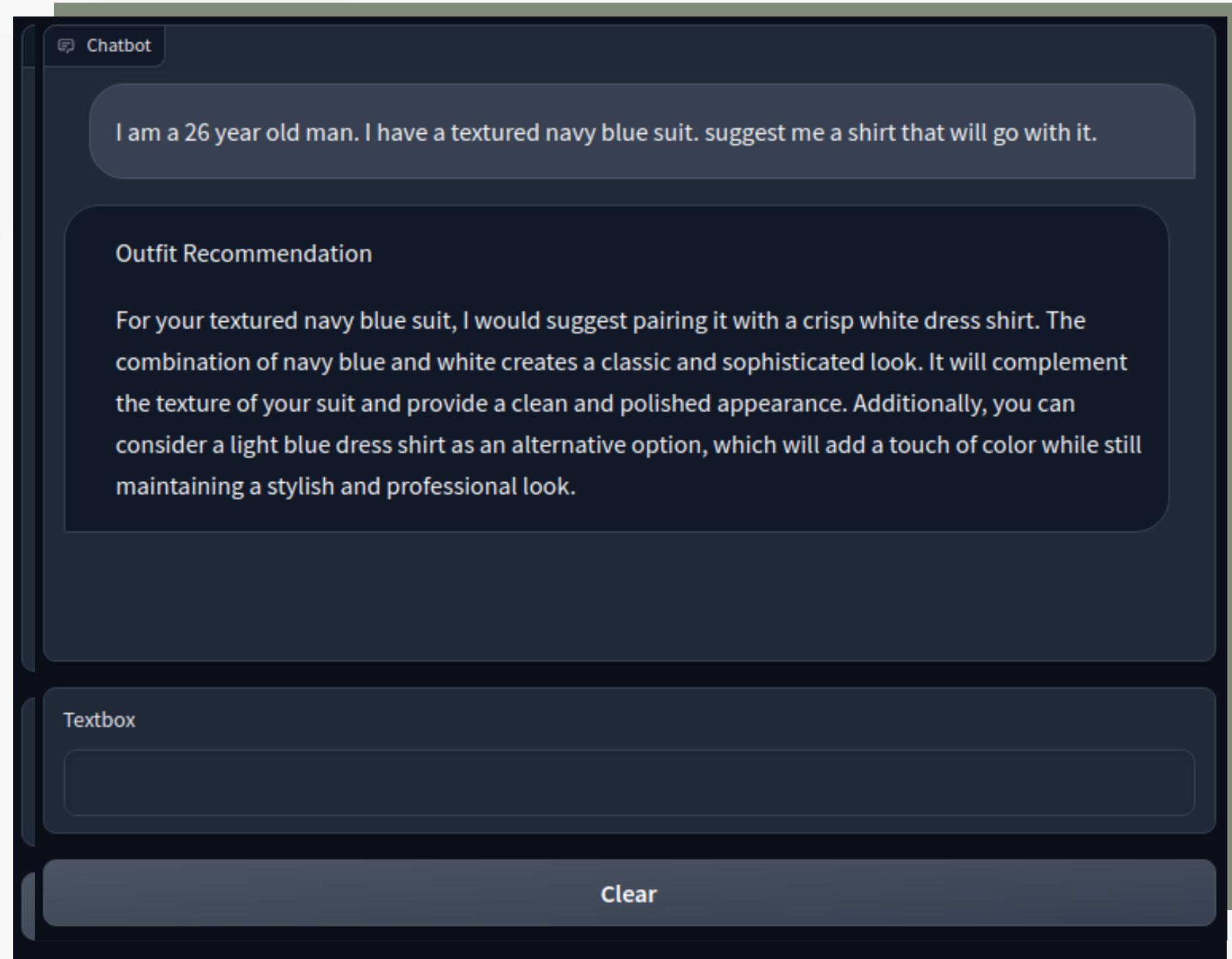


P2

USE-CASES

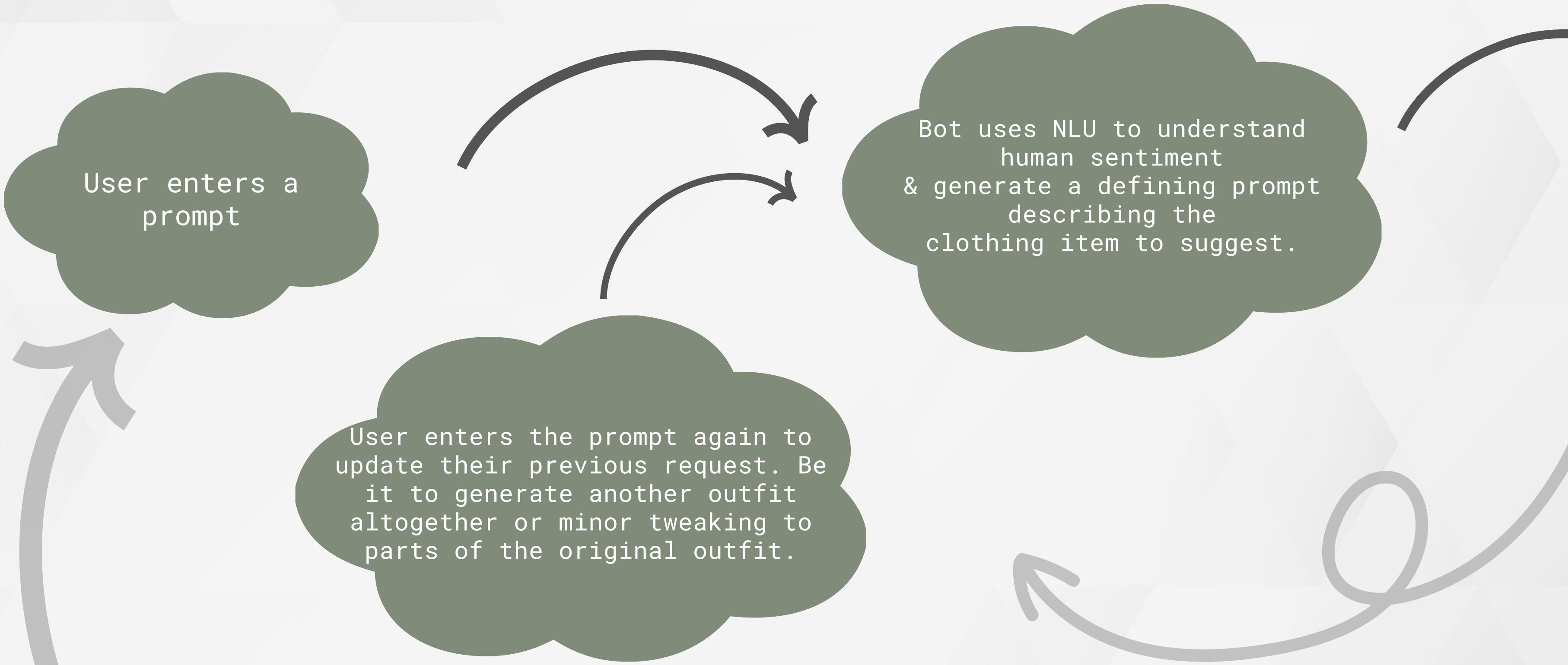
Build up on existing choices

In this option, the user may choose to provide their existing clothing and get suitable add-ons for the same. For eg, "I have a navy blue textured suit. Suggest me a shirt to go with it."



SOLUTION STATEMENT/ PROPOSED APPROACH

I: CHAT INTERFACE



SOLUTION STATEMENT/ PROPOSED APPROACH

II: GENERATED PROMPT / GEN-AI

GenAI is used to create a model dress using the prompt generated in the previous stage.

User is prompted whether the generated dress matches with what they desired?

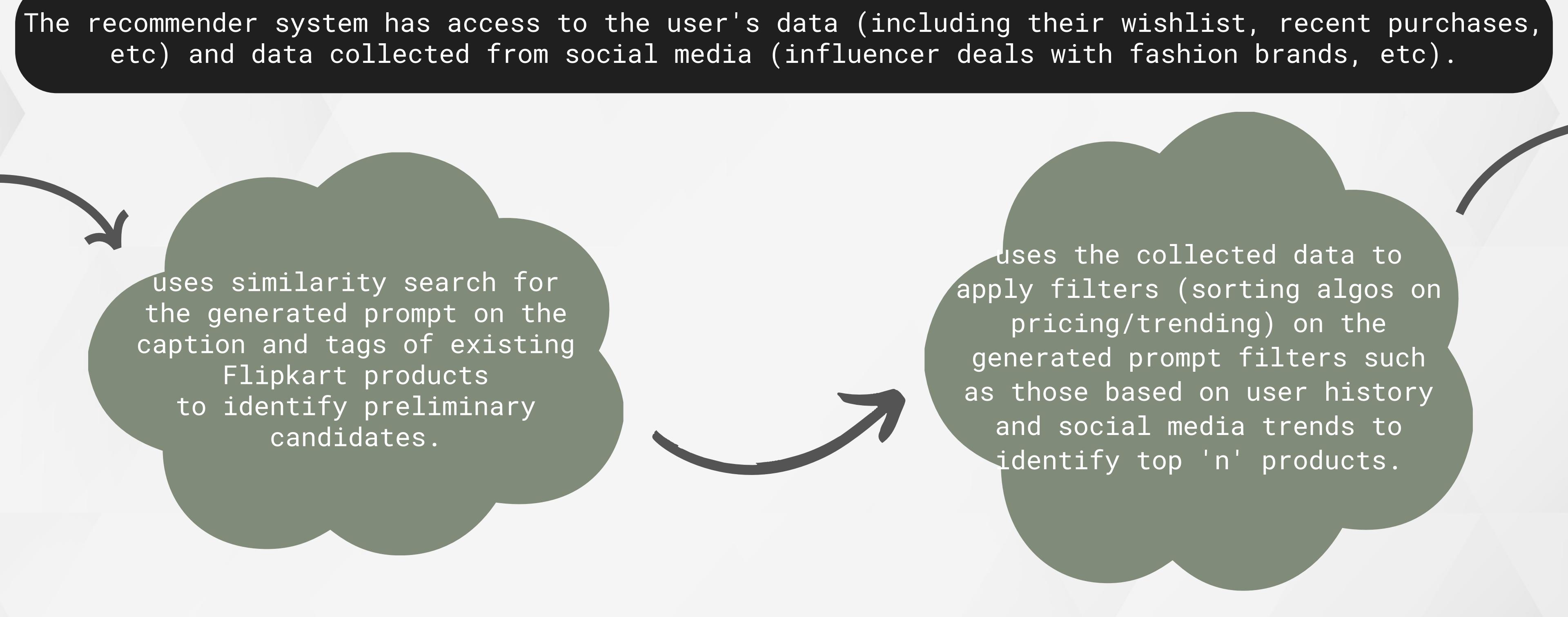
No?

Yes!

SOLUTION STATEMENT/ PROPOSED APPROACH

III: RECOMMENDER SYSTEM

The recommender system has access to the user's data (including their wishlist, recent purchases, etc) and data collected from social media (influencer deals with fashion brands, etc).

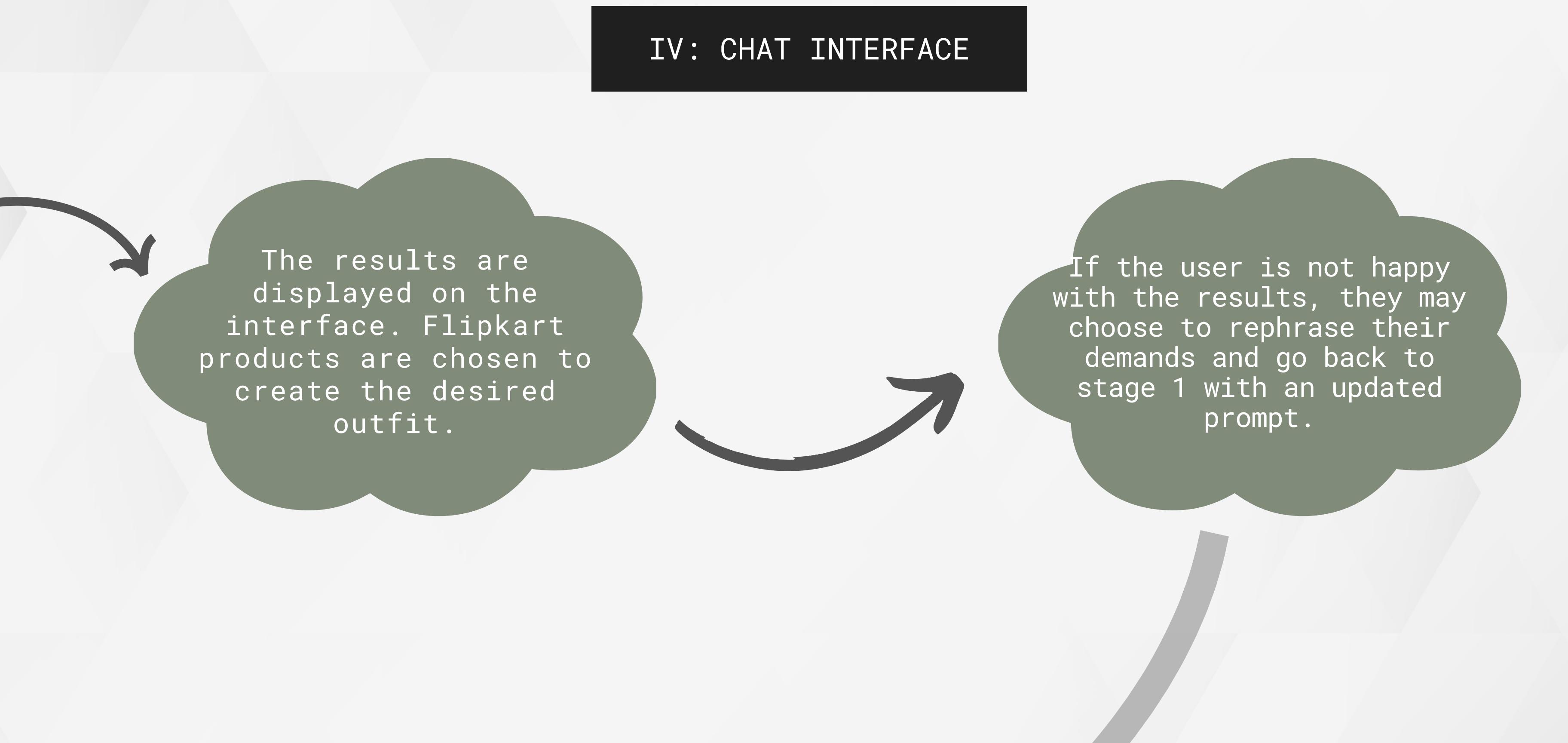


uses similarity search for the generated prompt on the caption and tags of existing Flipkart products to identify preliminary candidates.

uses the collected data to apply filters (sorting algos on pricing/trending) on the generated prompt filters such as those based on user history and social media trends to identify top 'n' products.

SOLUTION STATEMENT/ PROPOSED APPROACH

IV: CHAT INTERFACE



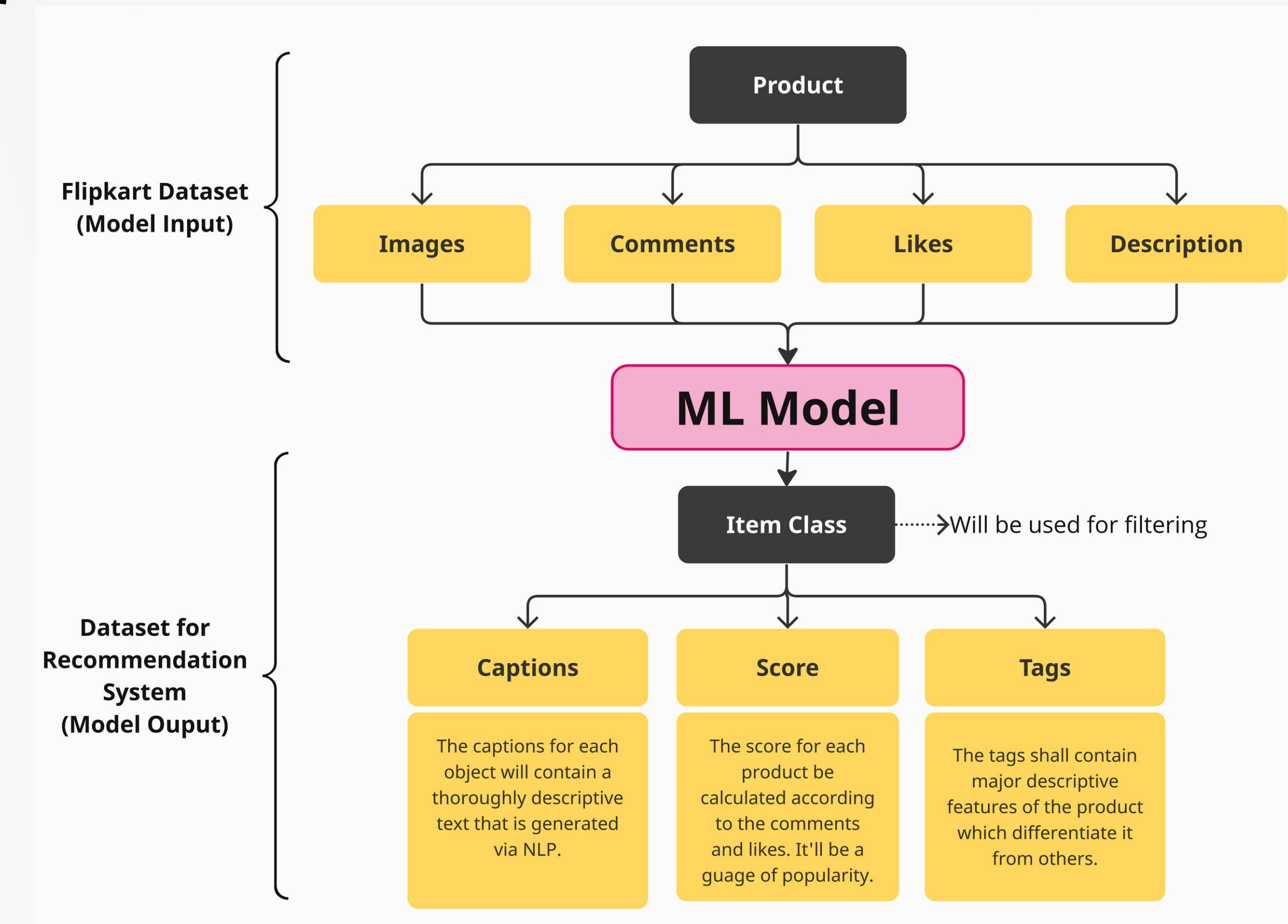
The results are displayed on the interface. Flipkart products are chosen to create the desired outfit.

If the user is not happy with the results, they may choose to rephrase their demands and go back to stage 1 with an updated prompt.

SOLUTION STATEMENT/ PROPOSED APPROACH

Custom Data Class for Product Filtering

1. We will create a custom class for our recommendation system to work upon.
2. For this purpose, we have to train an ML model which will take the Flipkart dataset as input and then generate a caption, score and a list of tags for each product.
3. This trained model will be further used for generating the same for all newer additions to the database.
4. This dataset, along with social media trends and user's data, shall be used for filtering out the final 'n' products from all the responses generated from the GenAI Prompt.



LIMITATIONS

- No current model for accurate outfit generation is available.
- Have to fine-tune a model to generate accurate outfit specific captions.
- Need a lot of data for tuning the recommender system.
- Currently dependent on OpenAI and other open source generic models.

FUTURE SCOPE

- Develop a model which uses the user's images to generate a realistic 3D model showcasing the suggested outfits.
- Flipkart specific models trained for fashion will provide much improved results.
- We can implement a feature which will allow the user to simply provide the chatbot with the Flipkart Store link of an item they want to include in their responses.

Flipkart



GRID

5.0

Thank You