

# GenAI Hackathon

APAC Edition



Team Name : Manualmaestros

Problem Statement : Retail & ECommerce

# ProductGuide Bot: Interactive Product Assist

## Idea brief:

- Introducing the "ProductGuide Bot": an innovative solution for simplifying product guidebook reading.
- Trained specifically on product guides, eliminating the need for manual reading.
- Users can access vital information of products by asking queries, and the bot provides instant replies.
- Accepts guidebooks in image format, converting them into text.
- Efficiently processes text using Google's BERT model.
- Streamlined approach which reduces effort and time.
- Allows users to confidently navigate product setup and troubleshooting.
- Ushers in a new era of simplicity and convenience in accessing product information.

## Opportunity :

How different is it from any other existing ideas out there?

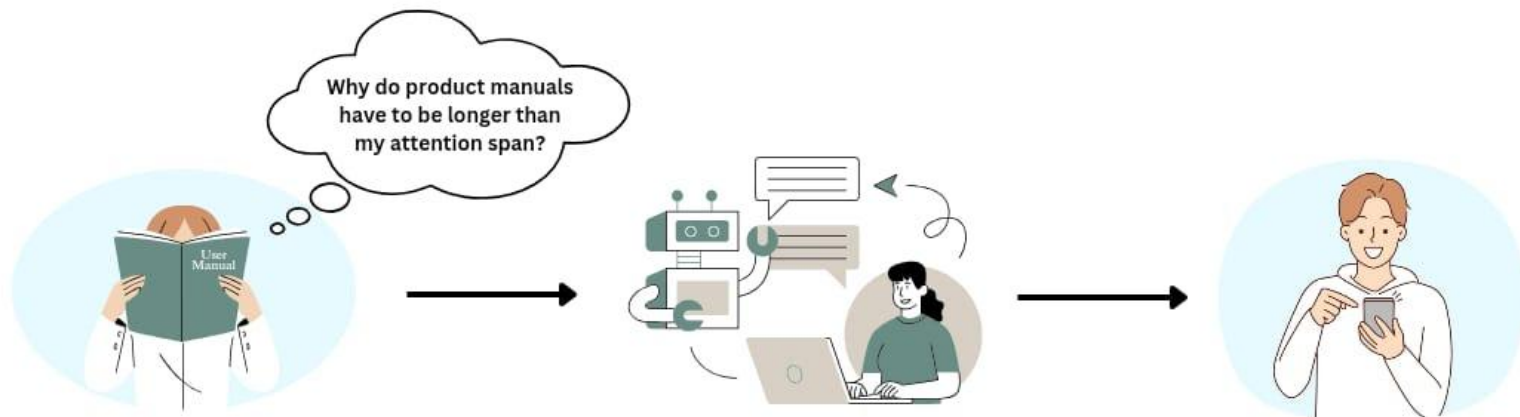
- **Specialized Training** : “ProductGuide Bot” is uniquely trained on product guidebooks, setting it apart from generic chatbots or virtual assistants.
- **Image-to-Text Conversion** : It accepts guidebooks in image format, converting them into text for seamless processing, a feature not commonly found in other solutions.
- **Utilization of Google's Bert Model** : This ensures efficient processing of text and accurate responses, enhancing user satisfaction with advanced technology.
- **Streamlined User Experience** : Users can simply ask their queries instead of manually searching through lengthy guidebooks, reducing effort and time.

“ProductGuide Bot” solves the problem by:

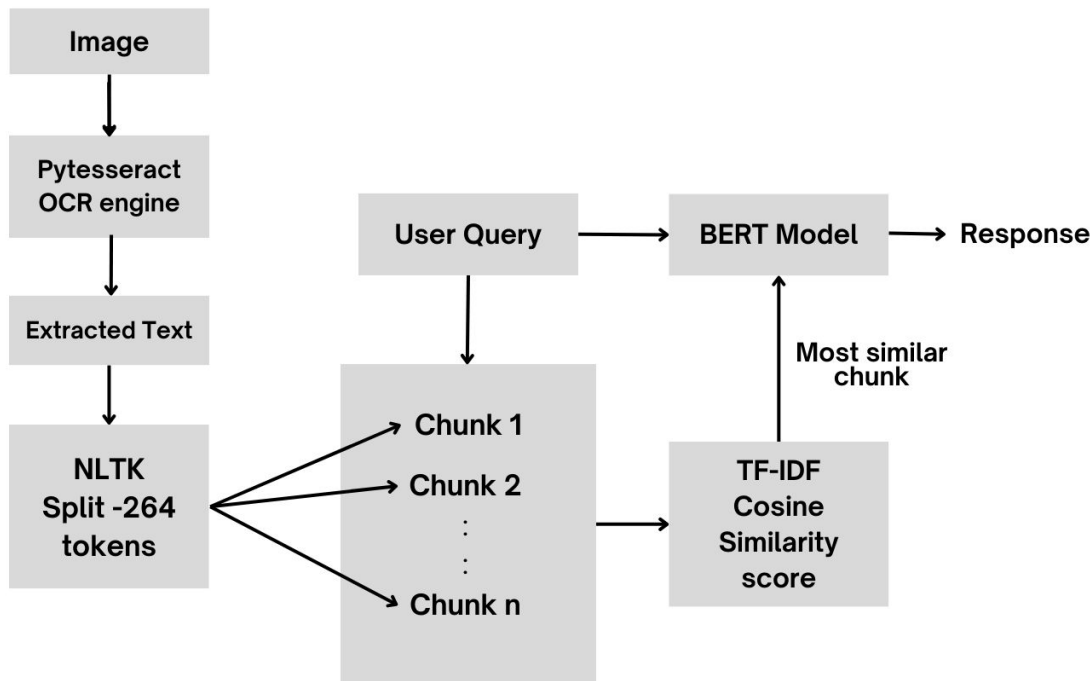
- **Advanced Technology Integration:** By utilizing OCR for image-to-text conversion and NLP for question answering tasks, “ProductGuide Bot” delivers reliable and accurate replies for user queries.
- **Effortless Information Retrieval:** Users can access vital information from lengthy product guides effortlessly, thus eliminating the need for extensive manual reading and saving time.
- **Convenience and Accessibility:** Users can pose inquiries anytime and anywhere. This streamlines product setup and troubleshooting processes.
- **Revolutionizing User Experience:** This chatbot sets new standards by simplifying access to product guides, enhancing customer satisfaction in the retail and e-commerce landscape.

## List of features offered by the solution :

- User-friendly interface
- Instant access
- Effortless retrieval
- Personalized assistance
- Streamlined process
- Simplified navigation
- Clear and concise responses
- Enhanced user satisfaction



## Process Flow Diagram:



## Technology used :

“ProductGuide Bot” uses GenAI tools such as:

**Google’s BERT Model** for Natural Language Processing.

Other technology stacks include:

- Optical Character Recognition(OCR): Tesseract OCR for text processing from images.
- Natural Language Processing(NLP): NLTK and Transformers for various NLP tasks such as tokenization, QnA and text understanding.
- Text Vectorization and Similarity: Utilizing Scikit-learn for TF-IDF vectorization and cosine similarity.
- Web application Development: Streamlit, a library for building the chabot model.
- Google Cloud: For efficient cloud computing services.

## Estimated cost of/after implementing the solution :

### Cost of Cloud Services:

- Google cloud storage and services : \$2-\$10 (per month).
- Hugging face subscriptions : \$5-\$20 (per month).
- GPU costs(T4): \$0.95-\$1 (per hour).

Potential maintenance cost: \$10-\$50 (per month).

Additional costs after development may vary accordingly.



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# *THANK YOU*

