BlazeEdge

Designed to Dominate. Engineered for the Future!

Abstract:

This project introduces a software tool designed to help manufacturers improve their product competitiveness in the market. Users upload product data in PDF format, and the software analyses this information to provide valuable insights. It identifies strengths and weaknesses, evaluates current market positioning, and suggests improvements. The tool aims to empower manufacturers with clear, actionable recommendations, enabling them to make informed decisions to enhance their products. By using this software, manufacturers can better understand their competitive landscape and effectively strategize to achieve greater success in the marketplace.
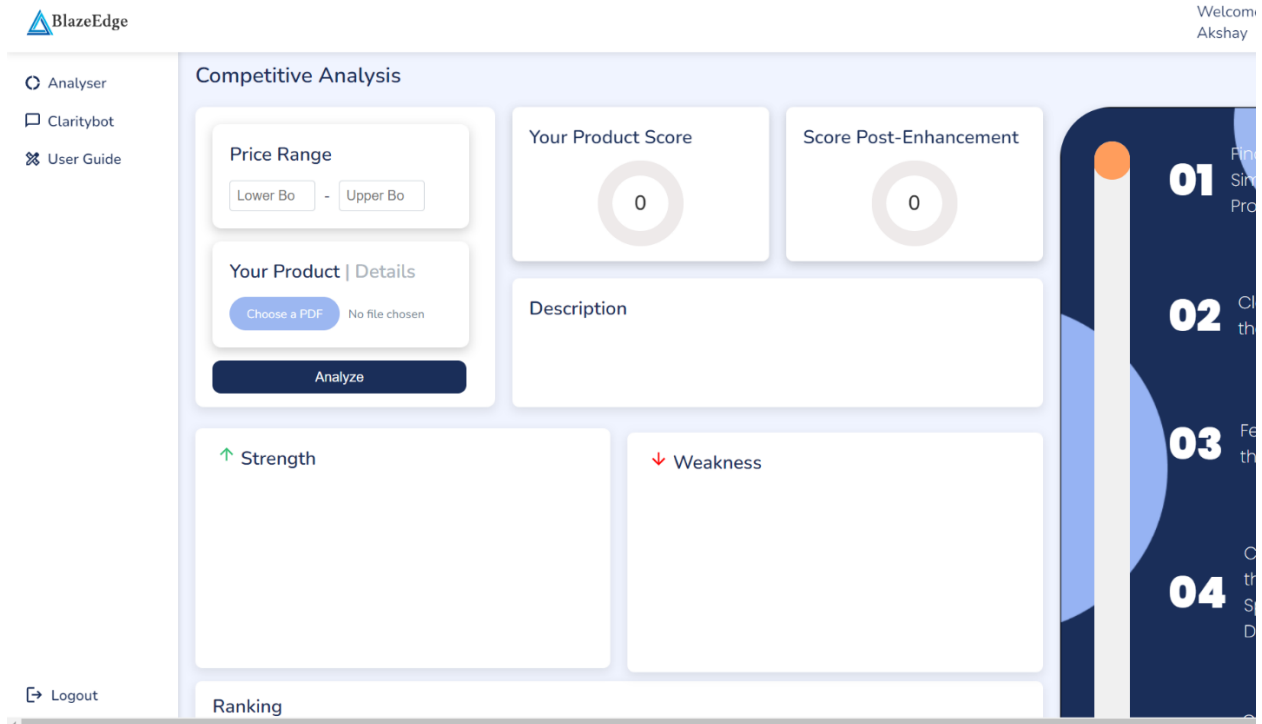
Technologies used:

Backend: Python
Front end: Html, CSS, JavaScript

Gen AI Model Used: OpenAI GPT 3.5 Turbo

1) Analyser

1. Dashboard Overview - Competitive Analysis Interface

- Price Range Input (Upper Bo, Lower Bo): Users can define the price range of the product to find competitors and analyse competitiveness within a specific pricing bracket.
- Product Upload (Choose PDF): Allows the manufacturer to upload a PDF containing product data (specifications, features, etc.) for analysis.
- Analyse Button: This button triggers the competitive analysis process.
- Product Score: Displays the current competitiveness score of the uploaded product.
- Score Post-Enhancement: Shows the potential score of the product after suggested improvements.
- Description Section: Provides a brief description of the analysed product.
- Strength and Weakness Panels: Highlights the strengths and weaknesses of the product, identifying key areas for improvement or competitive advantage.
- Ranking Section: Compares the product to other competitors, displaying its rank in the market.

- **Side Panel (Steps for Analysis Process):**

  - Finding Similar Products: Identifies products similar to the one being analysed.

  - Cleaning the Data: Cleanses the data collected for accuracy.

  - Fetching the Specifications: Retrieves the detailed specifications of competing products.

  - Cleaning Specs Data: Ensures that only relevant and clean specifications are used for analysis.
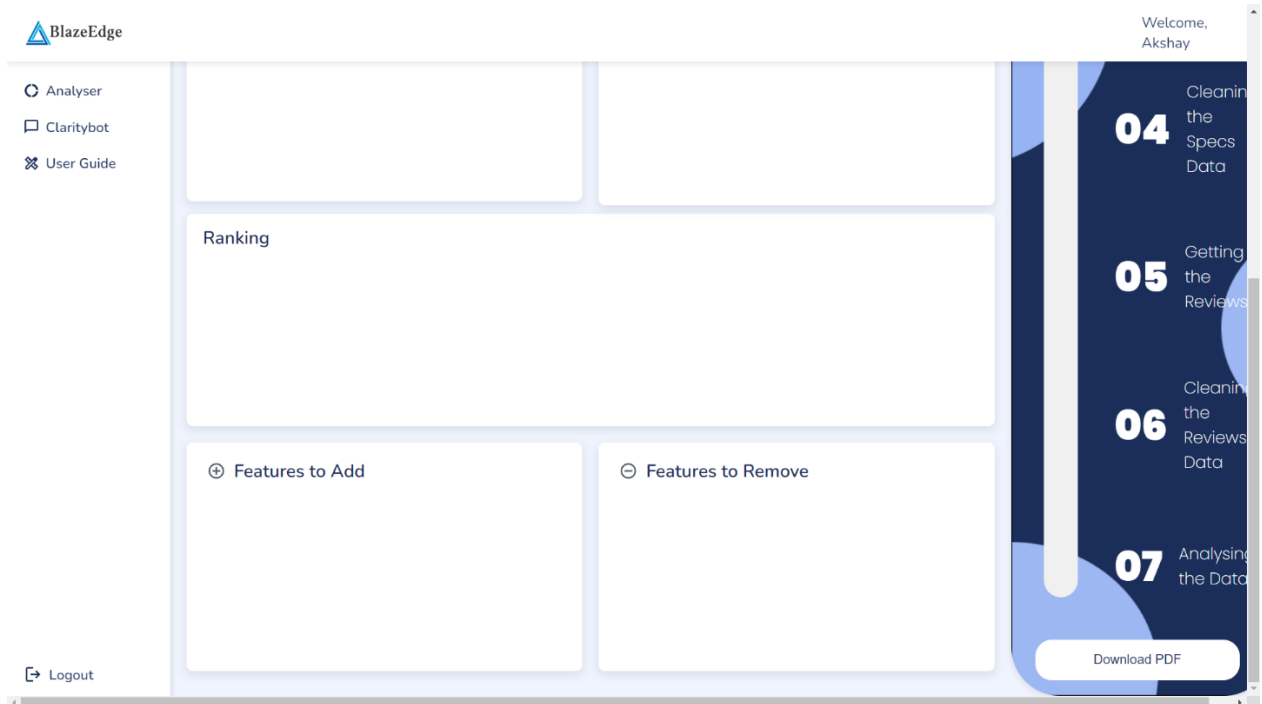
- Fetching and Cleaning Reviews Data: Gathers and cleans product reviews to ensure accurate sentiment analysis.

- Analysing the Data: Final stage that generates the overall analysis, comparing the uploaded product to its competitors.

2. Detailed Analysis View

- **Image Elements:**

  - **Ranking Section:** Once the analysis is completed, the ranking area shows the product's standing relative to its competitors. This section might be blank before analysis and populated post-analysis.
  - **Features to Add:** This box lists features that are recommended to be added to the product to improve its competitiveness.
  - **Features to Remove:** This box suggests features that could be removed to optimize the product's market appeal or to avoid unnecessary costs.
  - **Download PDF Button:** Users can download a detailed PDF report of the product's analysis, which includes strengths, weaknesses, competitive rankings, and suggestions for improvement.

- **Side Panel (Continued Process):**

  - The same sidebar from the previous image continues to display the steps taken during the analysis process, offering users transparency about the method used.

2) Clarity bot
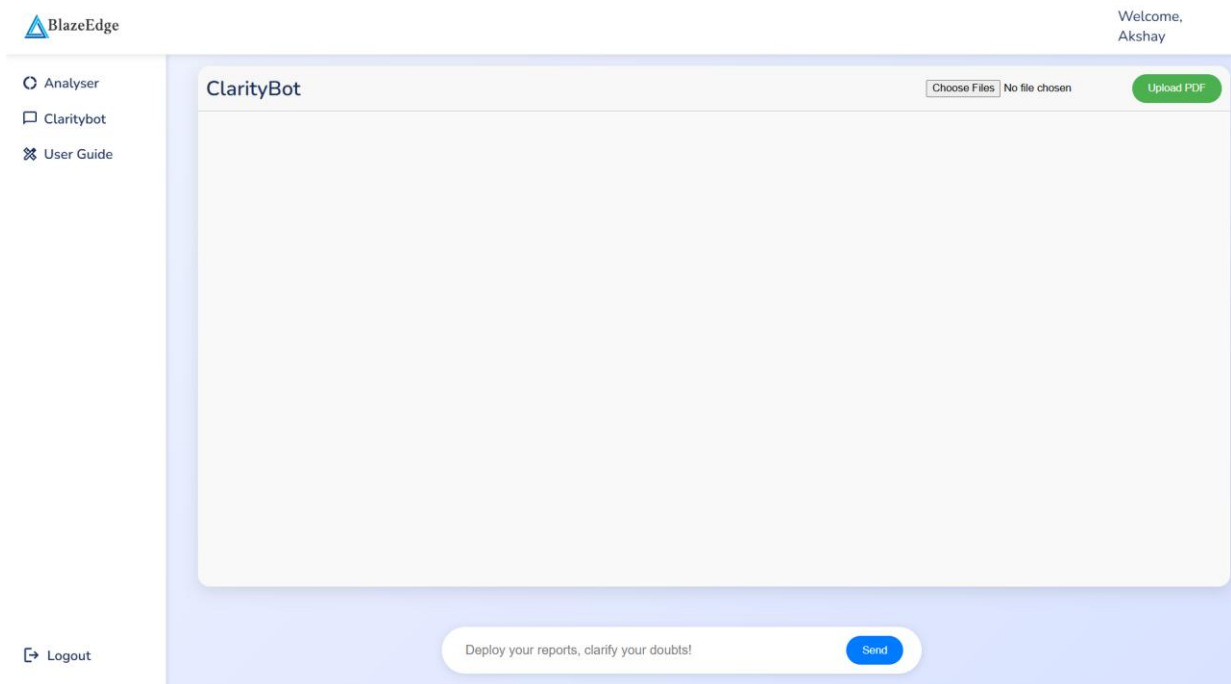
Purpose and Functionality

The ClarityBot is designed to provide users with instant support regarding their competitive analysis reports. By answering questions and clarifying data, it ensures that manufacturers can make informed decisions based on the analysis provided by the software. This feature plays a critical for manufacturers seeking to understand their product's market position and potential improvements. This documentation section should provide a clear understanding of the ClarityBot's functionalities and its role in the software's overall goal of improving product competitiveness.

ClarityBot Interface Overview

1. Header Section: The header displays the name of the software, BlazeEdge, and the module, ClarityBot.

2. User Interaction Window: The chat interface allows users to interact with the ClarityBot. It displays messages exchanged between the user and the bot.

3. User Queries:

    - The user initially should upload three pdfs their Product data, Competitive analysis report and Consolidated Report the conversation using text input box.
    - The user should be very clear while asking the questions, as it is an AI model requires clear prompting.
    - The user can ask for Queries explanation of the provided PDF reports, to which the bot will responds with an overview of the contents and purpose of the competitive analysis reports.

4. Bot Responses:

    - The bot provides clear, informative answers regarding the reports, including their evaluation of product strengths, weaknesses, and suggested improvements.
    - It explains how the consolidated report justifies the given data by outlining the analysis performed on various products.

5. Specific Queries: For Example, The user can further inquiries about the products competitiveness score. The bot elaborates on why it scored below perfect, citing specific limitations such as lack of NFC support and performance concerns.

6. File Upload Feature:
   - Users can upload multiple PDF files for analysis using the Choose Files button.
   - The Upload PDF button allows users to submit the selected files for processing.

7. Send Button: At the bottom, a Send button is available for users to submit their queries or comments to the bot.