Wellness Care: OCR-Based Web Application for Cosmetic Product Safety Assurance

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Cosmetic products are intended to enhance certain physical aspects that appeal to the aesthetic senses, particularly sight, such as the shape, colour, or form of human beings. The global cosmetics market has shown consistent growth throughout time due to the consumers who are mindful of their appearance. However, consumers encounter certain issues when using cosmetics. As a result of the study's findings, it is evident that the majority of the cosmetic product consumers face difficulties in understanding the meanings of the ingredients, and some ingredient names are not correctly included in the product. The popular side effects faced by cosmetic consumers are skin rashes, pimples, dryness, and irritation. This study is aimed at developing a web application to ensure the safety of the cosmetics products used by consumers in their day-to-day life. This proposed system will allow the user to ensure safety by uploading an image of the ingredient label or by manually typing the lists of ingredients. Here, the subset of the image processing domain, Optical Character Recognition technology is used to extract text from the uploaded image. It will output a report by displaying the descriptions of each and every ingredient, respective severity scores, and the overall score of the product by mentioning whether it is favourable or harmful to the health. Here, the necessary datasets are gathered from a reliable and accurate source. This system will ultimately contribute to the economic growth and will increase the sales of products and the safety of the consumers in the beauty industry.

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