

# ZEAL COLLEGE OF ENGINEERING AND RESEARCH

## FINAL YEAR PROJECT

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# STYLE - SYNC

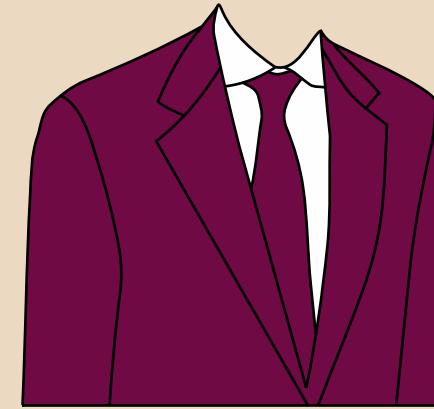
*ML-Powered Style Suggestions for Every Occasion*



# PRESENTATION OUTLINE



Problem Statement



ABSTRACT



LITERATURE SURVEY



ARCHITECTURE



SOFTWARE REQUIREMENT



REQUIREMENT OF DESIGN



MODULES SPLIT UP



PROPOSED SYSTEM



SOFTWARE TOOLS



PROJECT PLAN 2.0

# PROBLEM STATEMENT:

*Creating an Intelligent Fashion Assistant that can understand users' individual styles, preferences, and contexts to deliver personalized fashion recommendations.*

# ABSTRACT



Fashion analytics has been a hot topic, such as predicting trends and fashion recommendations. As one of the dominant clothing features, color dramatically influences people's shopping behaviors. Understanding popular colors and color combinations are of high business value. The AI-based stylist model intends to identify the exact shades of colors with a specific prediction of their name and predict the other colors harmonizing with the detected one. Mixing and matching colorful clothes is an essential feature of having a good fashion sense. A study is reliable that a typical human can perceive about 1 million different shades of colors. Nevertheless, in several instances, an individual with "encromia" can see only 1% of them (i.e., 10,000 colors). On the other hand, most human beings get confused about finding the best harmonizing colors for their attire, and may culminate dowdy. In our project, we are investigating compatible color combinations in fashion.

# LITERATURE SURVEY

- Ying Li and Anshul Sheopuri (CREATIVE DESIGN OF COLOR PAlettes FOR PRODUCT PACKAGING).
- Yuli Liang<sup>1</sup>, Seung-Hee Lee<sup>1</sup>, and Jane E. Workman<sup>1</sup>(Implementation of Artificial Intelligence in Fashion: Are Consumers Ready?)
- Kok -Meng Lee, Effects of Classification Methods on Color-Based Feature Detection with Food Processing Applications, IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING, VOL. 4, NO. 1, JANUARY 200
- J. Van de Weijer, Curvature estimation in oriented patterns using curvilinear models applied to gradient vector fields, IEEE TRANS PATTERN ANALYSIS AND MACHINE INTELLIGENCE, VOL. 23, NO. 9, PP. 1035- 1042, APRIL 2001.





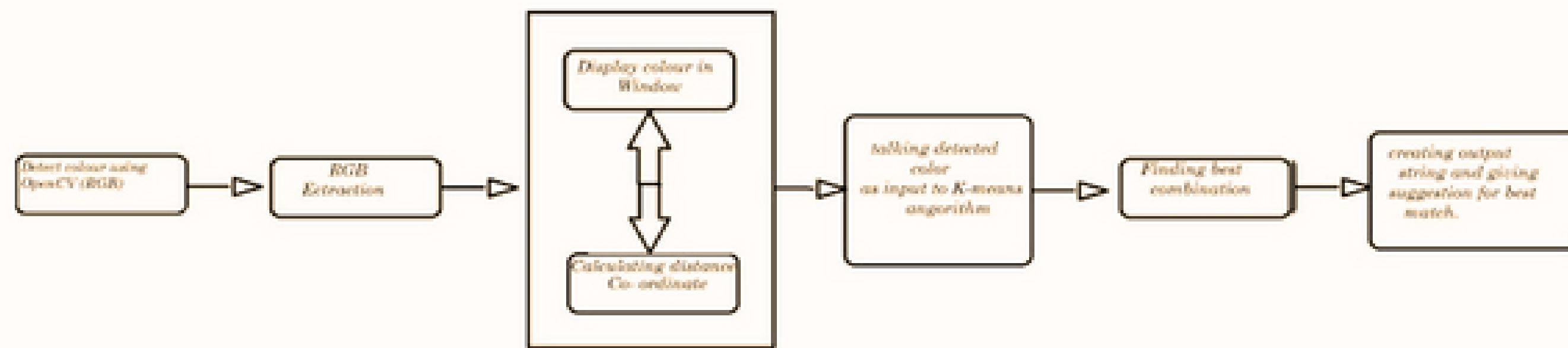
USER INPUT

PROBLEM  
STATEMENT

# Select your Skin Tone

The interface features a dark blue header with the words "PROBLEM STATEMENT" and "Select your Skin Tone". Below the header is a small illustration of a woman with red hair wearing a yellow jacket and sunglasses. To the right is a 3x6 grid of color swatches representing different skin tones, each labeled with a name. The names are: IVORY, PORCELAIN, PALE IVORY, WARM IVORY, SAND, ROSE BEIGE; LIMESTONE, BEIGE, SIENNA, HONEY, BAND, ALMOND; CHESTNUT, BRONZE, UMBER, GOLDEN, ESPRESSO, CACAO.

# ARCHITECTURE



*Fig 4.1: System Architecture*

# ARCHITECTURE

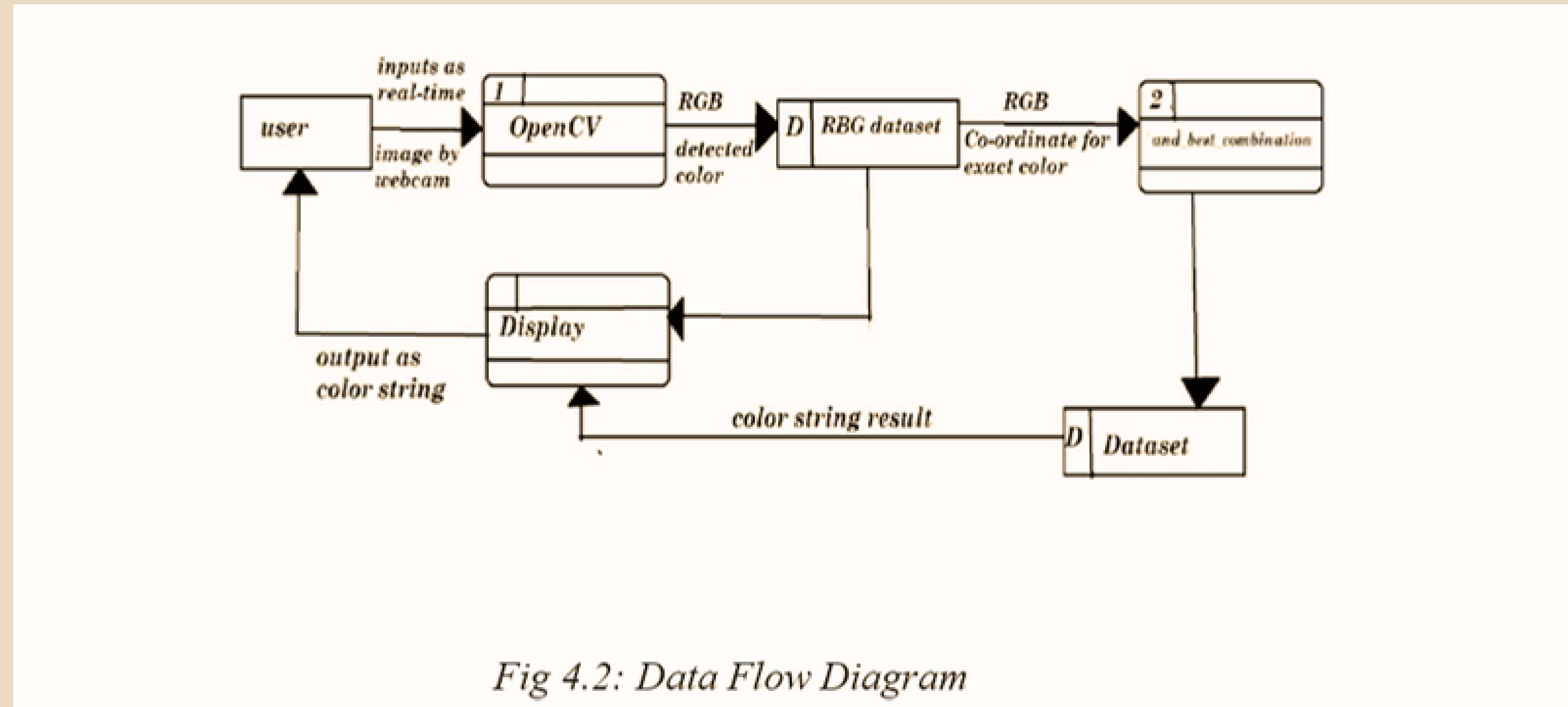
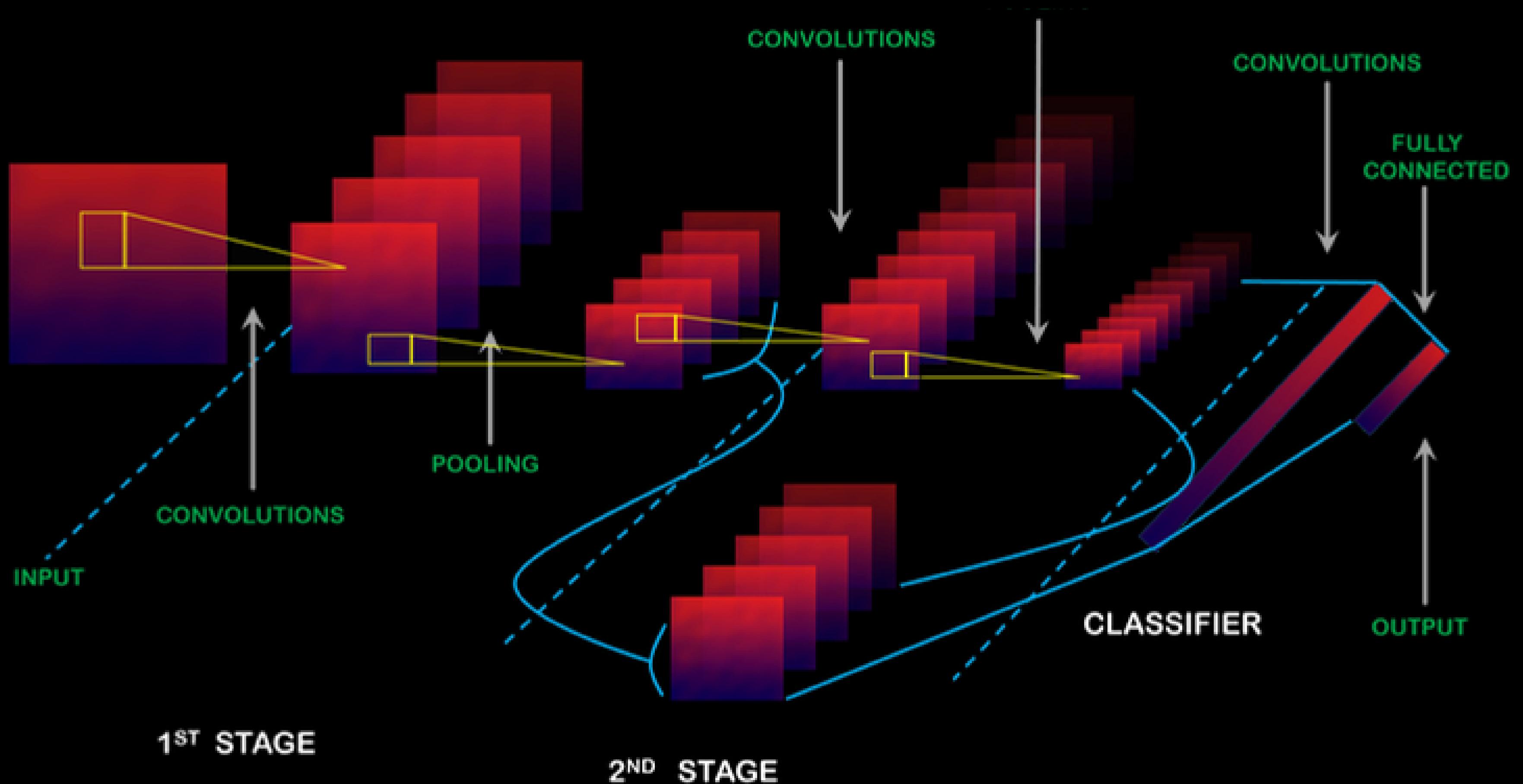


Fig 4.2: Data Flow Diagram

# CONVOLUTIONAL NEURAL NETWORK



# Software Requirement

- 1. Programming Language :** You can use a programming language like Python, JavaScript to build the bot's logic and implement its functionalities.
- 2. Natural Language Processing (NLP) Library :** NLP libraries such as spaCy or NLTK can help you process and understand user queries, allowing the bot to extract relevant information from the input.
- 3. Machine Learning (ML) Framework :** Frameworks like TensorFlow or PyTorch will enable you to train and deploy ML models for tasks like image processing, sentiment analysis, or recommending fashion items.
- 4. Convolutional Neural Network (CNN) :** CNNs are widely used for classifying images into different categories. They learn hierarchical features from images, enabling them to distinguish between various objects or scenes.



# REQUIREMENT OF DESIGN

User-Friendly Interface:

Style Recommendations:

Interactive Features:

Search and Filtering Options:

Integration with Social Media

Chat Functionality:

Size and Fit Recommendations:

Secure Transactions:

Multi-Platform Accessibility:

# MODULES SPLIT-UP

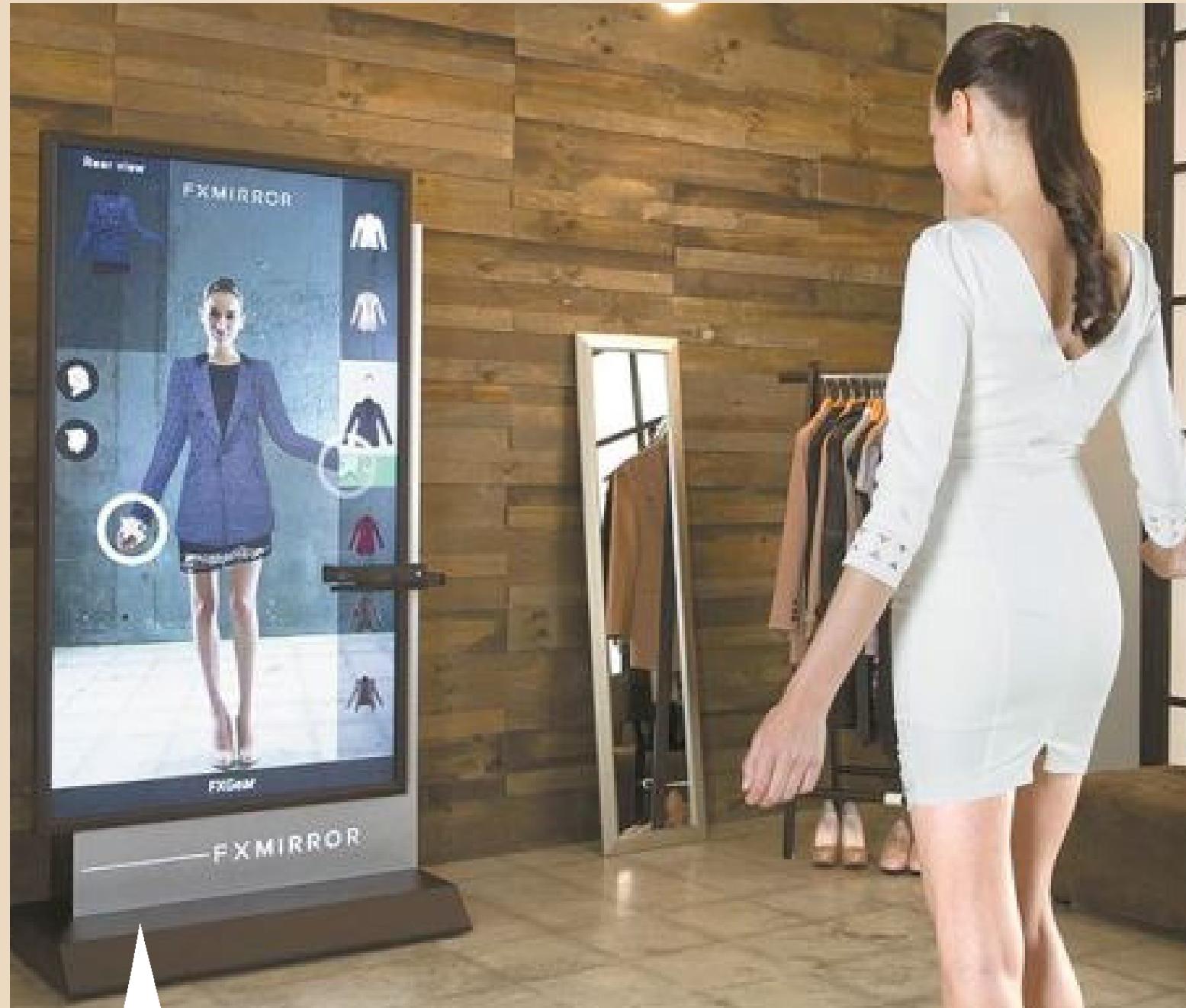
- 1. User Interface** - Develop a user-friendly interface for users to interact with the system
- 2. Skin Tone Analysis:** -This algorithm can use computer vision techniques or color analysis to identify the skin tone based on provided images or descriptions.
- 3. Clothing Database**:- Assemble a comprehensive database of clothing items, including images, descriptions, colors, and style attributes.
- 4. Matching Algorithm:** - Develop an algorithm that analyzes the user's skin tone (or existing wardrobe items) and matches it with suitable clothing items.  
- Take into account style preferences, occasion, and weather conditions if applicable.



# PROPOSED SYSTEM



# PROJECT PLAN 2.0



AR & VR



# THANK YOU

