Flipkart GRID 4.0

2022 Campus Challenge

Extract Trends from social media data

Team Name: High Definition

Institute Name: Indian Institute of Engineering Science and Technology, Shibpur

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1 (Team Leader)	2	3
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2024	2024	2024

USE-CASES

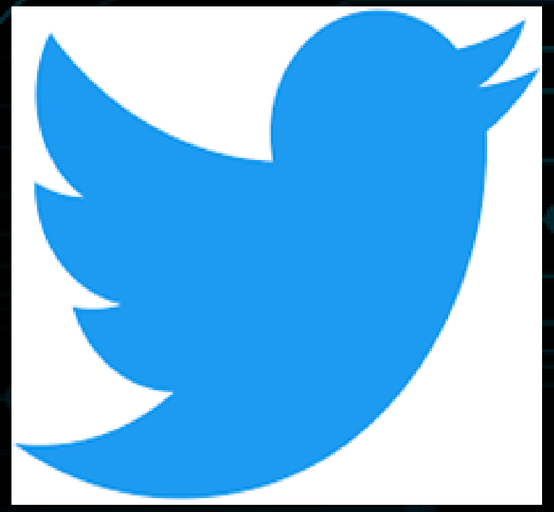
P0: The web app extracts data in real time from different social media platforms and calculates the trending score

P1: The web app provides the feature to the users to search for their own fashion products and see if the product is trending or not

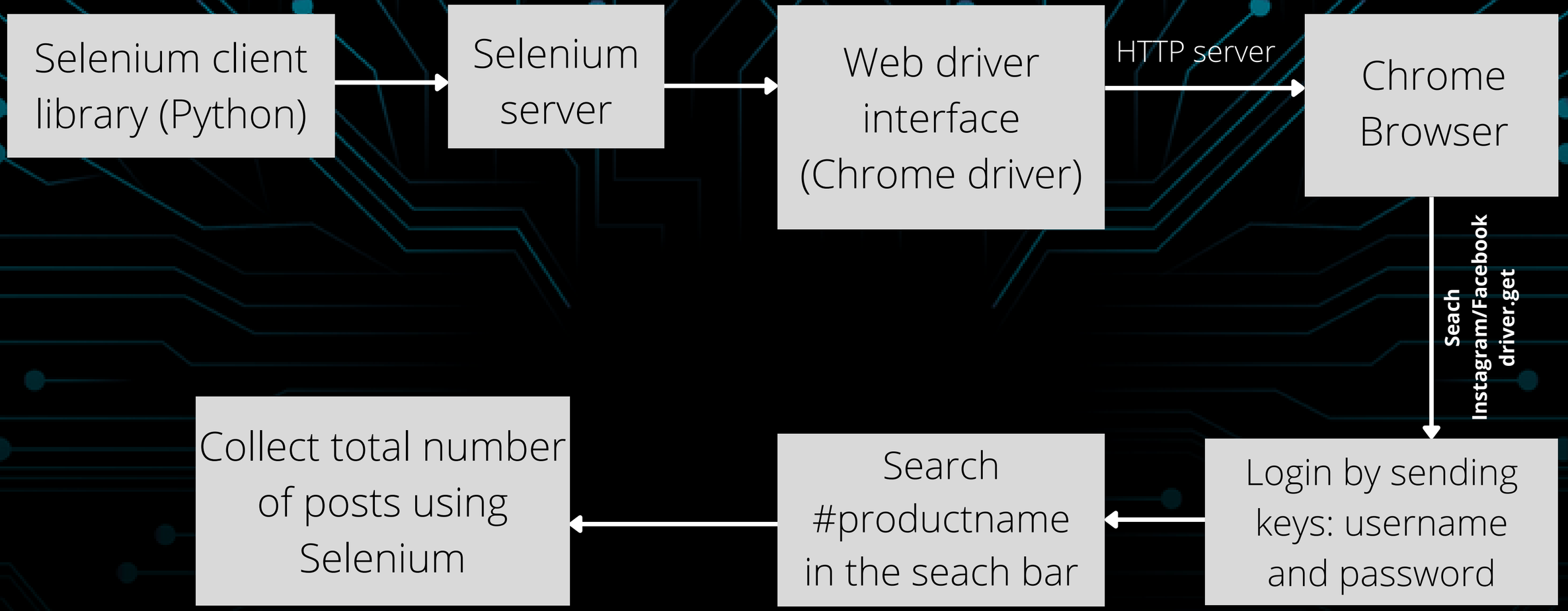
P2: The web app provides direct Flipkart links for the ease of the users and provides them with a Happy Shopping experience

SOLUTION STATEMENT

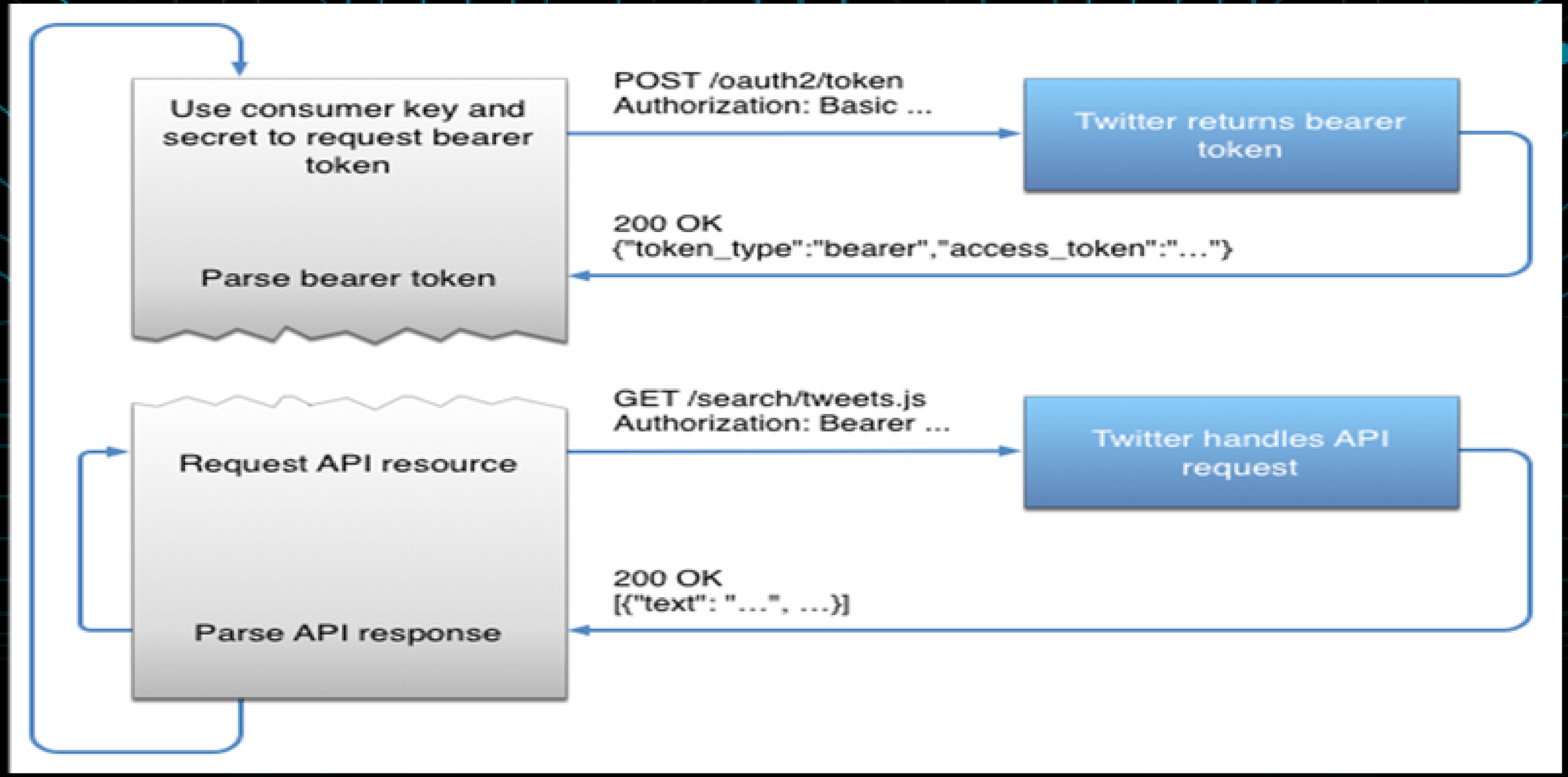
DATA SOURCES:



REAL-TIME DATA EXTRACTION:



Facebook and Instagram


Use consumer key and secret to request bearer token
Parse bearer token
POST /oauth2/token
Authorization: Basic ...
Twitter returns bearer token
200 OK
{"token_type":"bearer","access_token":"..."}
Request API resource
Parse API response
GET /search/tweets.js
Authorization: Bearer ...
Twitter handles API request
200 OK
[{"text": "...", ...}]

Twitter

TREND CALCULATION:

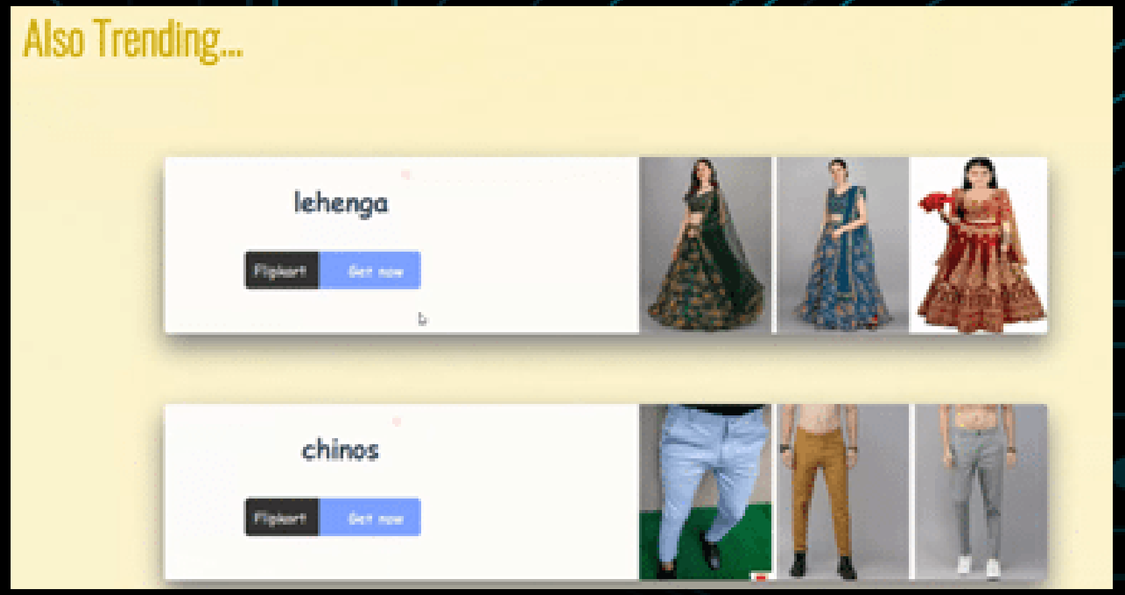
Applying min-max scaler to normalize the data

Using Black baron ranking to rank the trending products

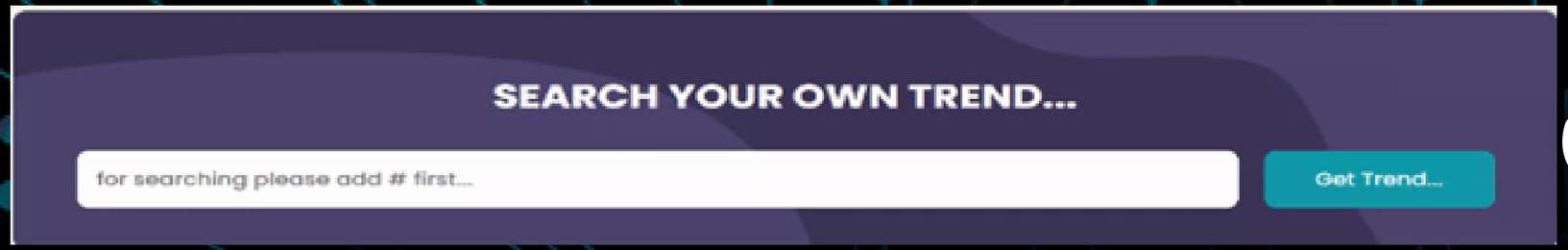
Top Trending products

Flipkart gateway to buy the trending product

Other Trends



USER-INTERFACE:



Allows user to search for their own trends

Custom search result alongwith flipkart gateway for a Happy Shopping experience

ARCHITECTURE:

Frontend:

- Use of a commercially popular framework (library), JS, JQuery
- CSS, helps in styling the web application and is easy to use

Backend:

- FLASK, a Python backend framework is used
- SELENIUM
- TWITTER API
- Other Python Libraries (NumPy, Pandas)

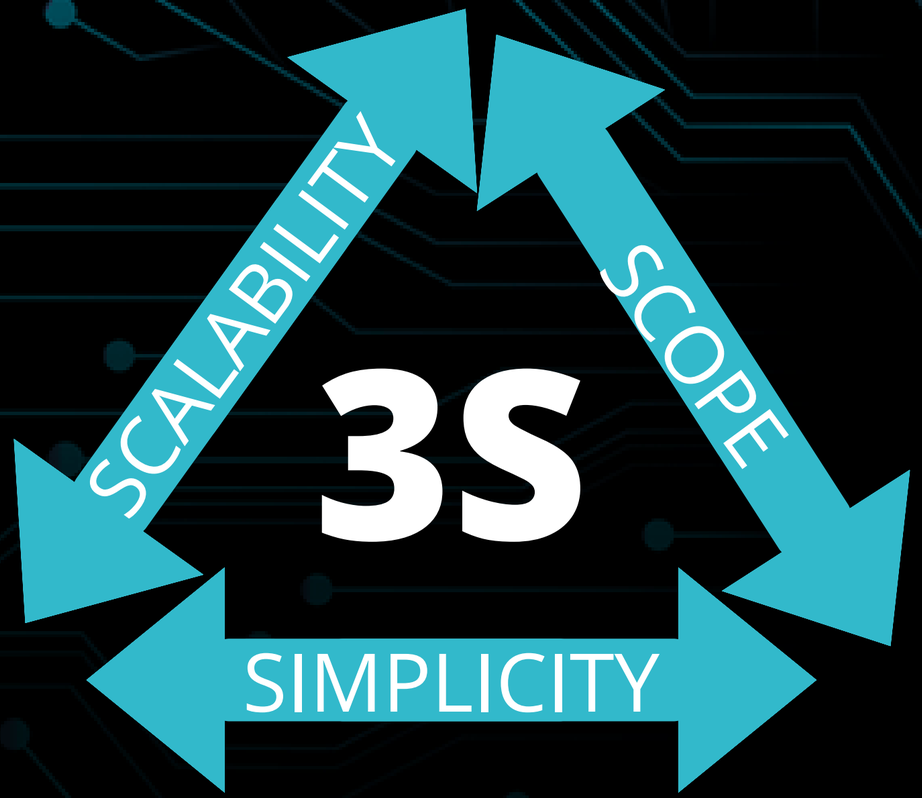
SHORTCOMINGS

- Less number of categories/products
- Limited number of Social Media Sites to extract trends
- Since Selenium is a power-consuming library, it takes some amount of time for data extraction

FUTURE SCOPE

- Features used (implicit + explicit feedback)
- Feedback -> Enhancement (loop)
- Deployment on Cloud -> Handling multiple requests
- Query-based recommendations

WHY OUR PROJECT?



SIMPLICITY:

- Easy to understand, implement and deploy

SCOPE:

- Easy to add input features

SUSTAINABILITY:

- Resulting from the above 3 S's