Touch Point - Homepage Carousels

Analysis of Selected Touchpoint: Homepage Carousels

- **User Context (Where is the user in the funnel?):**

    - The homepage is typically the most common place for new users to search new and trending products, they might not know much about skin care, but they will buy trending products if they see it as soon as they launch the website.
    - They might be first time visitors exploring the brand or returning customers looking for new arrivals.
    - They might not be looking for a specific product and the homepage gives a good leverage to provide the user with various products.

- **Business Objective:**

    - A homepage is a good place to showcase new products and promotions/sponsored products.
    - It will highlight the signature or popular products which will tend to buy more as not all users are looking for a specific product and catchy products will increase in sale with competitive pricing.
    - Hence, homepage seems to be the best area to focus if the goal is to increase the profit margin.

Refresh Cadence:

- The refresh cadence should be around every 3 days based on the trends, sales and popular views on each product and how much units is in stock.
- Also, keeping the sponsors in mind, when will it be over and put in new popular promotions on the homepage.

Filtering rules: Products with 'Units in Stock' below a threshold of 10 will be automatically excluded from the ranking , this ensures that only readily available products are showcased , preventing a negative user experience from viewing out-of-stock or nearly out-of-stock items.

Scoring Features to be selected are - profit margin, volume sold last month, views, brand tier.

- These features were selected because the products should be listed based on the profit margins, more they sell more the capital gain. It should be depend on the sales last month as products with higher sales will have a higher chance of selling more again , views give in a factor that people are seeing these products

more so these products will have a higher chance of being sold and brand tier is incorporated as seeing the average sales per brand tier I came to notice that it's influencing the sales according to the brand tier.

- I found that 'Brand Tier' C has the highest average 'Volume Sold Last Month' (230.30 units), followed by Tier B (188.75 units) and Tier A (188.22 units).

Weights assigned to the features:

Volume Sold Last Month: 45%

Why: High sales volume directly indicates product acceptance, market penetration, and the ability to scale.

Profit Margin (%): 35%

Why: Profitable sales are powerful asset to this e-commerce business as the revenue generated is beneficial to the company.

Views Last Month: 20%

Why: Views represent brand visibility, product awareness, and potential customer interest, it's a leading indicator for future sales and market relevance and know what the customers are really into and push similar products to their feed.

Below are the top 10 products based on the weights above and visualized in a table in google sheets, I used pandas to implement the logic and used the min-max scaler from sklearn to calculate the performance score and take out the top 10 products.

Product Name	Brand	Brand Tier	Units in Stock	Volume Sold Last Month	Views Last Month	Profit Margin (%)	Product Performance Score
Soothing Propolis Emulsion	Laneige	B	391	369	4013	56.426	0.899
Radiant Vitamin C Mist	COSRX	C	141	391	2886	57.297	0.884
Hydra Propolis Essence	Skinfood	A	177	368	4285	51.441	0.856
Calm Ginseng Cleanser	Tony Moly	B	115	373	2243	58.804	0.851
Calm Green Tea Serum	Missha	A	72	397	951	56.69	0.799
Fresh Niacinamide Cream	Mamonde	A	169	335	3830	51.311	0.796
Radiant Collagen Lotion	Missha	A	297	378	798	56.591	0.769
Radiant Centella Serum	Hera	C	327	305	4069	49.085	0.748
Glow Ginseng Mist	Laneige	B	470	256	4460	52.251	0.744
Radiant Green Tea Serum	Innisfree	A	144	239	3351	57.697	0.734

<u>Below is the flowchart of how this recommendation system would work:</u>
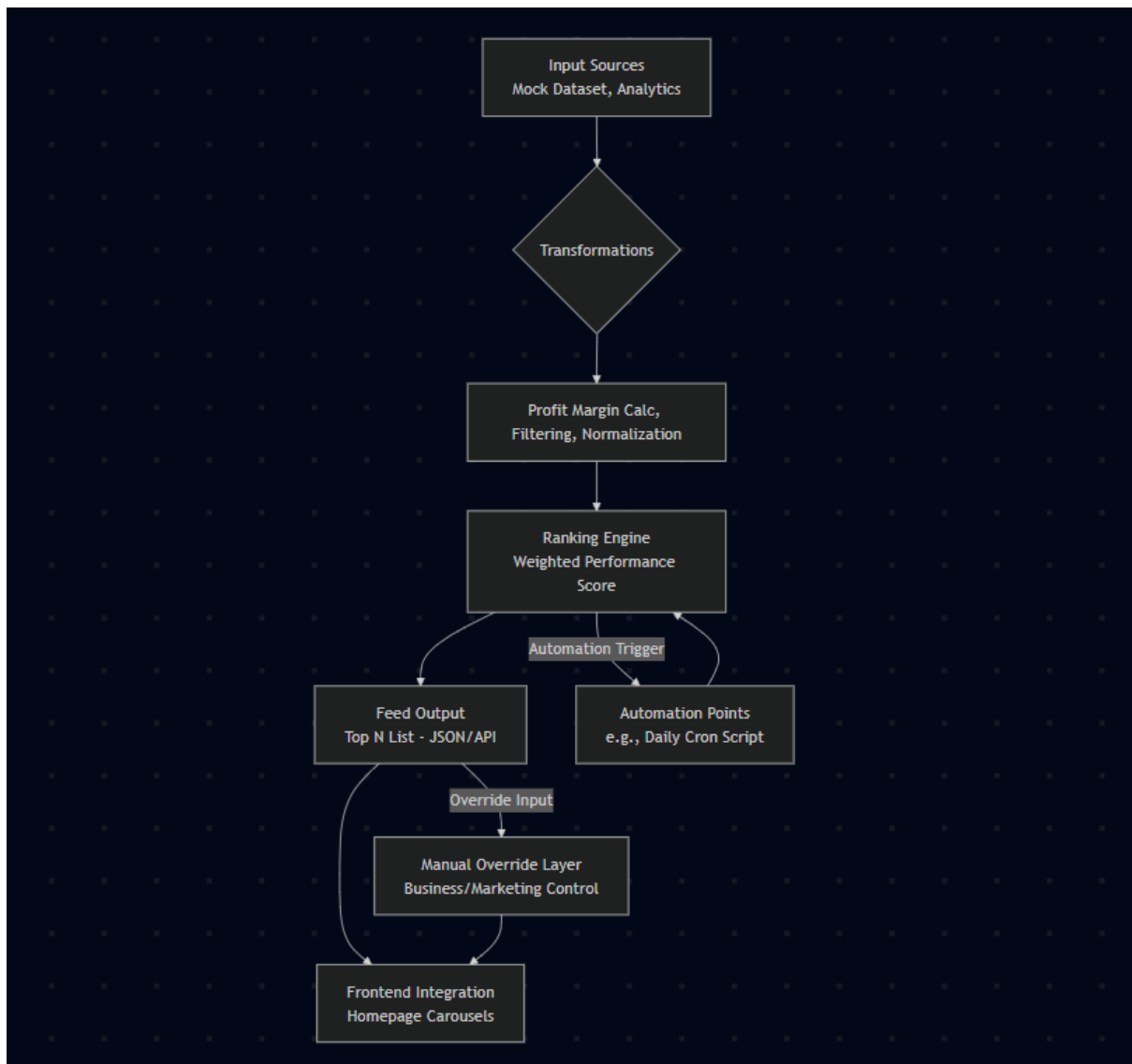
Step by step description of the flow chart:

1. Input Sources:

- **Description:** This is where we gather all the raw data necessary for our analysis.

2. Data Transformations:

- **Description:** Before products can be ranked, the raw data needs to be cleaned and enhanced.

3. Ranking Engine (Weighted Performance Score):

- **Description:** This is the core of our automation, where products are evaluated and ranked based on our strategic priorities.

4. Automation Points:

- **Description:** This element ensures the ranking process runs automatically and regularly.

5. Manual Override Layer:

- **Description:** While the system is automated, we maintain crucial business control.

6. Feed Output & Frontend Integration:

- **Description:** The final ranked list is prepared for display on the website.