**Problem Statement**

Shweta wants to build a product recommendation engine. Whenever someone searches for a product – e.g. Samsung 5star 350L Refrigerator -she wants to make sure that people are shown the best search results from her database of products. Her studies have shown that people who search like to see best matching results comprising of top selling products, products with lowest prices as well as products with highest prices.

You are being provided a dataset with all relevant details for a set of products in the catalogue of Shweta, including the following details: SKU Ids, SKU name (product name), product line (think product category), brand , number of items sold in the last month and current prices.

Develop a search engine (In cmd) using python in which you can enter a search term on the console, and the system return the following set of results

1. Top 3 most selling SKUs
2. Top 3 lowest priced SKUs
3. Top 3 highest priced SKUs

The user can enter the search text in any case or in any sequence or just the partial name of SKU. Following guidelines should be followed always:

* If the search text contains name of a brand, the results should be for the same brand products only
* If the search text contains name of a product line (category), or even an incomplete name (e.g. ‘ref’ in place of ‘refrigerator’) , the results should be for the corresponding product line (category) only
* Out of n words in the search text, at least n-1 should exist in the product name.

**Example :**

**Input :** Samsung Refrigerators

**Output:**

Top Selling Products :

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 1307 | SAMSUNG REF FF 321L RT34K3953S9 3S | Refrigerators | SAMSUNG | 19 | 29891.79 | | 1153 | SAMSUNG REF FF 253L RT28K3023SE/HL SL 3S | Refrigerators | SAMSUNG | 13 | 21493.38 | | 1474 | SAMSUNG REF FF 275L RT30K3723S8/HL 3S | Refrigerators | SAMSUNG | 11 | 26293.64 |   Lowest Price Products :   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 133 | SAMSUNG REF DC 192L RR20M182ZR2/HL 3S | Refrigerators | SAMSUNG | 4 | 16412.5 | | 78 | SAMSUNG REF DC 192L RR20M282ZR2/NL 3S | Refrigerators | SAMSUNG | 2 | 16500 | | 359 | SAMSUNG REF DC 212L RR22M272YS8/NL 4S | Refrigerators | SAMSUNG | 9 | 17388.89 |   Highest Price Products :   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 163 | SAMSUNG REF SBS 826L RF28K9380SG/TL | Refrigerators | SAMSUNG | 2 | 218535 | | 1155 | SAMSUNG REF SBS 838L RH77J90407H | Refrigerators | SAMSUNG | 1 | 161880 | | 1202 | SAMSUNG REF SBS 680L RF60J9090SL/TL | Refrigerators | SAMSUNG | 4 | 134837.3 | |  |  |  |  |  |
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