

USER'S MANUAL

Refining / Filter Search Engine

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1.0 General Information

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General Information section explains in general terms the program and the purpose for which it is intended.

1.1 Getting Started

This manual is designed for non-technical users and reviewers and provides an explanation of core aspects of Data Structures in Java, and how you can use the program to filter search results among many products.

1.2 Introduction to Refining Search Engine

This is a user manual for Refining Search Engine. Currently, in real life the concept of Refining search engine is used in very wide areas.

There are many websites such as Flipkart, Amazon etc uses refining search engine to help user to select his desired products the easy way.

Our Refining Search Engine is a program in Java whose aim is to serve easy search result to the user. Our objective is

to help user choose 1 product which he likes out of 1000's product in the smart way.

This is Real Life Program which effectively uses the data structures of Java to complete the process.

1.3 Code Overview

Our Refining search engine would refine the products which user wants out of many predefined products set up by the admin of the store.

The File Management system process acts as backend database in our case. So our priority is to extract all the data from a pre-made text file which stores all the product datas including cost, features, etc and the text file also stores Customer user information. So program calls data from it.

Front End works on CLI, it works on Simple Java datastructures like Array, Binary Search Tree, Linked List, Sorting which is technical.

1.4 Things you need

Latest Java Version

Netbeans

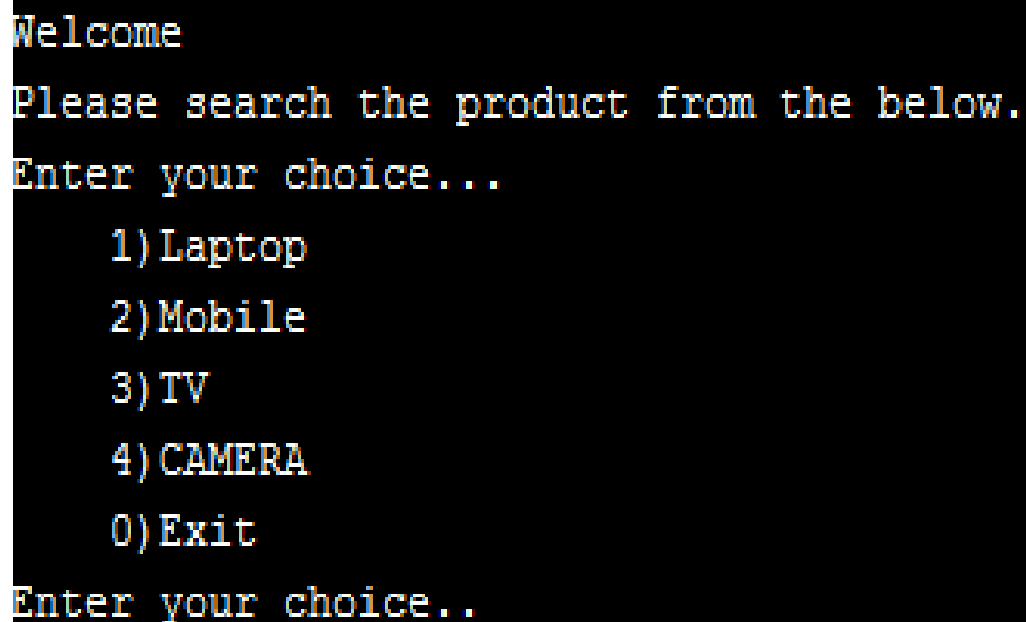
And to load all classes in Netbeans

2.0 Using the program

3.0 Using the program

As the above mentioned instructions of the previous section, first you need to load all the classes and main file in NetBeans IDE and then you need to click on “Run”.

You will see Homepage which would be looking as following screenshot attached



```
Welcome
Please search the product from the below.
Enter your choice...
    1)Laptop
    2)Mobile
    3)TV
    4)CAMERA
    0)Exit
Enter your choice..
```

2.1 Choosing For Products

Now, as you can see in first screenshot you have option to choose between Laptop, Mobile, TV and Camera. So for demonstration we will choose Laptop and it will list all the Laptops which are present in the database (Text File) by admin


```
Enter your choice..
```

```
1
```

```
-)  51000  
    4 gb  
    dell15548  
    i3  
    1000gb  
    amd  
    2 inch  
    Dell
```

```
-)  51000  
    8 gb  
    dell15558  
    i5  
    1000gb  
    nvidia  
    15 inch  
    Dell
```

```
-)  45000  
    4 gb  
    dell15547  
    i5  
    1000gb
```

Now, there are all the products of Laptop listed below. Now, user will be asked to refine the search engine or to Sort the price value with Min to Max or from Max to Min

```
Laptops
  1) Refine Search
  2) Sort (Min to Max Price)
  3) Sort (Max to Min Price)
Enter your choice..
1
Laptops
  1) Processor
  2) Memory
  3) Ram
  4) Graphics
  5) Size
  6) OS
  7) Price
  8) Brand
```

We are first choosing 1st option which is Refining Search, Now you will options of specs like Processor, RAM etc and you can choose any of them according to your need and it will filter results for you.

Now, suppose let's choose Option 3.) which is RAM so it will show you different types of RAM like 1GB, 2GB, 3GB, 4GB and you can choose again from that with what you like. You can

refer the screenshot below where we choosed 3GB RAM and it showed it's item.

```
Laptops
  1) Processor
  2) Meomery
  3) Ram
  4) Graphics
  5) Size
  6) OS
  7) Price
  8) Brand
Enter your choice..
3
  1) 2 GB
  2) 3 GB
  3) 4 gb
  4) 6 GB
  5) 8 GB
Enter your choice..
3

Stack
1) dell15547
   4 gb
   i5
  1000gb
```

As you choose, the stack query would be coming in response showing the filtered search.

After you choose a product, program will ask “Do you want to Continue?”. If you click on Yes then you will be again shown choices.

```
Do you want to countinue?  
Press 1 to countinue or Press 0.  
1  
Laptops  
    1) Processor  
    2) Meomery  
    3) Ram  
    4) Graphics  
    5) Size  
    6) OS  
    7) Price  
    8) Brand
```

2.2 Filtering Items for the Searched

As you click on 1, you will be again shown options of the Products but this time the product you choosed before would be filtered out. Now, let's filter search result of Laptop with respect to Price

```
Do you want to countinue?  
Press 1 to countinue or Press 0.  
1  
Laptops  
1) Processor  
2) Meomery  
3) Ram  
4) Graphics  
5) Size  
6) OS  
7) Price  
8) Brand  
Enter your choice..  
7  
1) 10000-20000  
2) 20000-30000  
3) 30000-40000  
4) 40000-50000  
5) 50000-60000  
Enter your choice..  
4  
Stack  
1) dell5547  
4 gb  
i5  
1000gb  
nvidia  
32 inch  
windows 10  
Dell  
45000
```

As you see only 40k-50k prices,Laptop showed up

2.3 Sorting

Now, if you click on Continue, then user will see Sorting options

- ➔ Sort (Min to Max Price)
- ➔ Sort (Max to Min Price)

Now, here is a demonstration of Sorting of Min to Max Price

```
Press 1 to countinue or Press 0.  
0  
press 1 to continue 0 to exit....  
1  
Laptops  
    1) Refine Search  
    2) Sort (Min to Max Price)  
    3) Sort (Max to Min Price)  
Enter your choice..  
2  
-)> 28000  
    4 gb  
    hppavillion420  
    i3  
    512gb  
    amd  
    17 inch  
    HP  
  
-)> 30000  
    4 gb  
    DELLV34  
    i5  
    1 tb gb  
    amd  
    17 inch
```

Here, is the demonstration of Sorting (Max to Min price)

```
press 1 to continue 0 to exit....
```

```
1
```

```
Laptops
```

```
1) Refine Search
```

```
2) Sort (Min to Max Price)
```

```
3) Sort (Max to Min Price)
```

```
Enter your choice..
```

```
3
```

```
-) 51000
```

```
4 gb
```

```
dell5548
```

```
i3
```

```
1000gb
```

```
amd
```

```
2 inch
```

```
Dell
```

```
-) 51000
```

```
8 gb
```

```
dell5558
```

```
i5
```

```
1000gb
```

```
nvidia
```

```
15 inch
```

```
Dell
```

```
-) 45000
```

```
4 gb
```

```
dell5547
```

So, the results of Sorted Filtered result would be coming as response. Now, after the user chooses his liked product, the part of checkout comes.

2.4 Making A Wishlist

After the user have selected his liked item, he can make a wishlist for himself to save those items for the checkout.

Whenever you make a wishlist, we have a condition that “you must be an Existing User” if not then you have to Compulsory register.

So, here is the demo for Filling Registration form and choosing wishlist

```
press 1 to continue 0 to exit....
0
Press 1 to contnue and 0 for exit..
0
Press 1 to make wishlist or 0 to exit...
1
Enter if 1 you are new user.
Enter if 2 you are existing user.
1
Enter your Name:
aditya
Enter the UserName By which you can handle your account:
adi
Enter Contact number:
26930075
Enter your House number (Block Number):
b-4.sagar
Enter your Area name:
satellite
Enter your City name:
ahmedabad
Enter the PinCode:
380015
Enter your Country name:
india
Enter the product you want to add to your wishlist
1-11-2521
```


After registering , user can add his favourites in WishList. And when the next time same user comes he don't have to Register again.

```
Enter the product you want to add to your wishlist  
dell 3521  
Name           :dell 3521  
BUILD SUCCESSFUL (total time: 2 minutes 2 seconds)
```

And after that step, user can checkout / exit the program.

3.0 End Results

3 End Results

The end result is that the user would be easily able to choose his desired products out of many pre-defined product. So confusion also occurs less for user.

All appropriate data structures are used in the program which makes the complexity lesser and code much efficient.

The program follows Availability, Integrity and existing user would have higher advantage as they take less steps to checkout

Wishlist has also been included for sake of simplicity to purchase items for the Final Checkout.

And above all the main point “It makes easy for user to search powerful and Effectively”

THANK YOU