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Assignment #1

Problem Statement

Implement a standalone product search program in Java that lists matching products for a user who is looking for T-shirts.

You are given 3 CSV files, each containing the T-shirts data for Nike, Puma and Adidas respectively. Sample CSV files links are attached here for reference. You can add more data in existing files or can add more CSV files for another companies.

Nike

Puma

Adidas

Problem Statement ...

CSV File Data

CSV Fields	Details
ID	Unique product id, starting with 2-digit company code
NAME	Model name
COLOUR	T-shirt Colour
GENDER_RECOMMENDATION	Gender for which this T-shirt is recommended. M, F, U (M – Male, F- Female, U-Unisex)
SIZE	S, M, L, XL, XXL
PRICE	Price of the T-shirt per piece in INR
RATING	Rating of the T-shirt from 1 to 5 (1 being lowest and 5 being highest)
AVAILABILITY	Y or N

Problem Statement

Input

Program should accept 4 input parameters

a.   **Color**

b.   **Size**

c.   **Gender**

d.   **Output Preference**

"Gender" is a String which has two possible values like 'M' and 'F'. M=Male and F=Female.

"Output Preference" is a String which suggests whether the results should be sorted only by Price or by Rating or by both Price and Rating.

Expected Behavior and Output

- After getting the inputs, program should search for the T-shirts in all 3 csv files and list the results on standard output, sorted by Output Preference.

- Program should be written considering that there could be more csv files and at runtime program should load the files. Please make use of Thread which will look for any new file at a particular configurable location after some configurable time and load the provided file

- If the suitable T-shirt is not present in any csv files, then program should return a user-friendly error

- Assignment should be implemented as a Maven project.

- Maven 3.x should be used.

- Use available 3rd party dependencies to read and parse CSV files.

- Write an ant script to build a jar file for the same java program

- Use the new features of Java 8 wherever possible

Output

- Program should display the list of **available** T-shirts with details on console for provided user inputs.

Evaluation Criteria

- Code Completeness and Correctness
- Use of Java Collections, Threads and Annotations
- Usage of OO Principles, package/class structure, class/function/variable names
- Code in running condition
- Face to face discussion
- Usage of Java 8 new features