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09-Java_Assignment

1️⃣ Task: Filtering Trending YouTube Videos

🎯 **Scenario:** You are working on a **YouTube-like** platform. You have a list of trending video titles and their views.

📌 **Goal:** Use **Streams & Lambda** to filter out videos that have more than **1 million views**.

🔹 **Input Example:**

```
Video List:
1. "AI Revolution" - 2,000,000 views
2. "Java Tutorial" - 900,000 views
3. "Tech News" - 1,500,000 views
4. "Gaming Highlights" - 800,000 views
```

🔹 **Expected Output:**

```
Trending Videos with 1M+ views:
1. "AI Revolution"
2. "Tech News"
```

2️⃣ Task: Transforming Instagram Username List

🎯 **Scenario:** You have a list of **Instagram usernames** in lowercase. You need to **capitalize** them using **Streams & Lambda Expressions**.

🔹 **Input Example:**

```
Usernames: ["john_doe", "genz_gamer", "tech_wizard", "foodie_queen"]
```

🔹 **Expected Output:**

```
Capitalized Usernames: ["John_doe", "Genz_gamer", "Tech_wizard", "Foodie_queen"]
```

3️⃣ Task: Sorting Online Shopping Cart by Price

🎯 **Scenario:** You are working on an **e-commerce website** where users add items to their cart.

📌 **Goal:** Sort the products by price **in descending order** using Streams.

🔹 **Input Example:**

```
Cart Items:
1. "Wireless Earbuds" - ₹599
2. "Laptop Stand" - ₹359
3. "Mechanical Keyboard" - ₹1299
4. "Smartwatch" - ₹1999
```

🔹 **Expected Output:**

```
Sorted Cart (High to Low Price):
1. "Smartwatch" - ₹1999
2. "Mechanical Keyboard" - ₹1299
3. "Wireless Earbuds" - ₹599
4. "Laptop Stand" - ₹359
```

4️⃣ Task: Counting Genz Twitter Hashtags

🎯 **Scenario:** You are analyzing the **trending Twitter hashtags** to see which ones are most commonly used by GenZ.

📌 **Goal:** Use **Streams & Lambda** to count how many tweets contain the hashtag `#GenZ`.

🔹 **Input Example:**

```
Tweets:
1. "Just watched the latest tech review! #GenZ #Tech"
2. "Morning vibes with coffee ☕ #Aesthetic"
```

```
3. "Best gaming setup ever! #GenZ #Gaming"
4. "Throwback to my travel adventures! #Travel"
```

🔹 **Expected Output:**

```
Number of Tweets with #GenZ: 2
```

5️⃣ Task: Finding the Most Expensive Subscription Plan

🎯 **Scenario:** You have a **list of subscription plans** for a streaming service.

📌 **Goal:** Use **Streams API** to find the **most expensive** subscription plan.

🔹 **Input Example:**

```
Subscription Plans:
1. "Basic Plan" - ₹59/month
2. "Standard Plan" - ₹199/month
3. "Premium Plan" - ₹299/month
```

🔹 **Expected Output:**

```
Most Expensive Plan: "Premium Plan" - ₹299/month
```

🚀 Submission Guidelines:

✔️ Implement the logic using **Lambda & Streams**.

✔️ Test your implementation and compare it with the expected outputs.

✔️ Comment on your observations about how **functional programming** simplifies your code.

Source: https://github.com/gurukannan22/Java-Learning