public class Product {

private int id;

private String name;

private double price;

public Product(int id, String name, double price) {

this.id = id;

this.name = name.toLowerCase(); // case insensitive search

this.price = price;

}

public int getId() {

return id;

}

public String getName() {

return name;

}

public double getPrice() {

return price;

}

public String toString() {

return "Product ID: " + id + ", Name: " + name + ", Price: $" + price;

}

}

import java.util.ArrayList;

import java.util.List;

public class ProductSearch {

private List<Product> products;

public ProductSearch() {

products = new ArrayList<>();

}

public void addProduct(Product product) {

products.add(product);

}

// Search products by keyword (case insensitive partial match)

public List<Product> searchByName(String keyword) {

List<Product> result = new ArrayList<>();

keyword = keyword.toLowerCase();

for (Product p : products) {

if (p.getName().contains(keyword)) {

result.add(p);

}

}

return result;

}

}

import java.util.List;

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

ProductSearch productSearch = new ProductSearch();

// Add some products to the platform

productSearch.addProduct(new Product(101, "Apple iPhone 13", 999.99));

productSearch.addProduct(new Product(102, "Samsung Galaxy S21", 799.99));

productSearch.addProduct(new Product(103, "Apple MacBook Pro", 1299.99));

productSearch.addProduct(new Product(104, "Dell XPS 13", 999.99));

productSearch.addProduct(new Product(105, "Apple AirPods Pro", 249.99));

Scanner scanner = new Scanner(System.in);

System.out.println("Enter product name keyword to search:");

String keyword = scanner.nextLine();

List<Product> foundProducts = productSearch.searchByName(keyword);

if (foundProducts.isEmpty()) {

System.out.println("No products found matching '" + keyword + "'");

} else {

System.out.println("Products found:");

for (Product p : foundProducts) {

System.out.println(p);

}

}

scanner.close();

}

}

OUTPUT:

Enter product name keyword to search:

Phone

Products found:

Product ID: 101, Name: apple iphone 13, Price: $999.99