## Problem Statement: Product Analysis - Class and Objects

This exercise is based on the data present in the below class provided in the boilerplate. Refer and analyze this class. Do not edit it

* ProductRepository
  + Contains an in memory list of products as an array

Complete the class Product and ProductService as per the below requirement

**Class Product**

Create the following properties. properties should be private:

-productCode : int

-name : String

-price : double

-category : String

Complete the parameterized constructor to initialize all properties

Complete the getters and setters for all properties

**Class ProductService**

Define the below methods

+ findNameByCode(int): String

- Should take product code as parameter and return the name of the product from the list of products present in ProductRepository

- If no product is found for the given product code, return null

+ findMaxPriceProduct(String): Product

- Should take product category as a parameter and return the product object having the maximum price in the category provided

- If no product is found for the given category, return null

+ getProductsByCategory(String) : Product[]

- Should take product category as parameter and return the array of products in the category provided

- If no product are found for the given category, return null

## Instructions

* Take care of whitespace/trailing whitespace
* Do not change the provided class/method names unless instructed
* Ensure your code compiles without any errors/warning/deprecations
* Follow best practices while coding