

Topics

- Object Oriented Programming
- Encapsulation
- Inheritance
- Abstraction
- Polymorphism

VN Department Store

VN Department Store is a famous department store in Indonesia that sells several products, such as clothes, food, and electronics. You, as a Junior Java Developer, are asked to **build an application** for the department store with **Object Oriented Programming** concepts. You are assigned to make a program that **follows some requirements** below:

- The program consists of **4 menus**. They are:
 1. Add Product
 2. View Products
 3. Remove Product
 4. Exit

```
VN Department Store Product Management
=====
1. Add Product
2. View Products
3. Remove Product
4. Exit
>>
```

- **Menu 1 (Add Product)**
 - Ask user to input **Product Name** and validate that the name must be **between 5 and 20 characters**.
 - Ask user to input **Product Price** and validate that the price must be **between 20000 and 5000000**.

- Ask user to input **Product Category** and validate that the category must be **between Clothing, Food, and Electronic (case insensitive)**.
- If category is **Clothing**, ask user to input Product Size and validate that the size must be **between Small, Medium, Large, and Extra Large (case sensitive)**.
- If category is **Food**, ask user to input **Product Expiration Year** and validate that the year must be **between 2023 and 2028**.
- If category is **Electronic**, ask user to input **Product Brand** and validate that the brand must be **between 2 and 10 characters**.
- After user input all data, **add product** to the **product list**.

Add Product

```
=====
Input product name [5 - 20 characters]: hood
Input product name [5 - 20 characters]: Hoodie
Input product name [20000 - 5000000]: 10000
Input product name [20000 - 5000000]: 50000000
Input product name [20000 - 5000000]: 500000
Input product name [Clothing | Food | Electronic] (case insensitive): Clothing
Input product size [Small | Medium | Large | Extra Large] (case sensitive): small
Input product size [Small | Medium | Large | Extra Large] (case sensitive): med
Input product size [Small | Medium | Large | Extra Large] (case sensitive): Small
Successfully added new clothing
Press enter to continue...
```

• Menu 2 (View Products)

- If there is **no products** in the **product list**, print **“There is no product data”**.

```
There is no product in the list
Press enter to continue...
```

- Otherwise, **show all product data**.

View Product

```
=====
No           : 1
Name        : Hoodie
Price       : 500000
Category    : Clothing
Size        : Small
=====
```

```
=====
No           : 2
Name        : Curry
Price       : 50000
Category    : Food
Expiration Year : 2025
=====
```

```
=====
No           : 3
Name        : Television
Price       : 3000000
Category    : Electronics
Brand       : Samsung
=====
```

Press enter to continue...

- **Menu 3 (Remove Product)**

- If there is **no products** in the **product list**, print “**There is no product data**”.

```
There is no product in the list
Press enter to continue...
```

- Otherwise, **show all product data**.
- Ask user to input the **Product No**.
- If the **Product No** doesn't exist, print the **Product No user inputted wasn't found** and **redirect user back to the main menu**.

```

Delete Product
=====
No           : 1
Name        : Hoodie
Price       : 500000
Category    : Clothing
Size        : Small
=====
No           : 2
Name        : Curry
Price       : 50000
Category    : Food
Expiration Year : 2025
=====
No           : 3
Name        : Television
Price       : 3000000
Category    : Electronics
Brand       : Samsung
=====
Input product no you want to delete [1 - 3]: 5
There is no product no 5
Press enter to continue...

```

- Otherwise, **remove** the product with the **inputted number** from the **product list**.

```

=====
No           : 2
Name        : Curry
Price       : 50000
Category    : Food
Expiration Year : 2025
=====
No           : 3
Name        : Television
Price       : 3000000
Category    : Electronics
Brand       : Samsung
=====
Input product no you want to delete [1 - 3]: 2
Product Curry successfully deleted
Press enter to continue...

```

- **Menu 4 (Exit)**

- **Display** the following message and **stop** the program.

Thankyou for using our program...
Have a nice day! :D