

## Shopping Cart

- You are given a **Product** class which contains some product information and Products.json file which contains a list of products.
- You need to extend a **DiscountedProduct** subclass from this **Product** class.
- You will be provided with the product IDs that you want to purchase.
- You need to display the details of the product and the price of the product if it's available.
- If the product with a particular ID is not present, print “**Product with product id [ write id of the product here ] not found!**” message.
- Also, you need to display and return the total amount of the products you bought as a final answer.
- You need to implement these two methods for these classes:
  - getProductDetails() → returns the details of the product (id, name and category of the product)
  - getProductPrice() → returns the price or the discounted price (if applicable) of the product

## Input Format

- [Product ID 1] [Product ID 2] [ Product ID 3] ...

## Output Format

- Product\_ID: [ Product ID ] | Product Name: [ Product Name ] | Category: [ Product Category ]
- Product\_Price [ Product Price ]

or

- Product with product id [ Id of the product ] not found!

## Examples

1. Input: 2 1 3

Output: Product\_ID: 2 | Product Name: Redmi K20 pro | Category: Electronics  
Product\_Price 27000  
Product\_ID: 1 | Product Name: Samsung Galaxy F13 | Category: Electronics  
Product\_Price 11000  
Product\_ID: 3 | Product Name: Nike DRI-FIT academy | Category: Clothing  
Product\_Price 1900  
Total Amount: 39900

2. Input: 2 5 10

Output: Product\_ID: 2 | Product Name: Redmi K20 pro | Category: Electronics  
Product\_Price 27000  
Product\_ID: 5 | Product Name: Rich Dad Poor Dad | Category: Books  
Product\_Price 361  
Product with product id 10 not found!  
Total Amount: 27361

## Basic Instructions

1. You are required to solve this problem keeping the following points in mind:
  - Use basic OOPs concepts
  - Use appropriate naming conventions
  - Avoid magic numbers as much as possible
  - Solution should be clean and readable
2. You are required to solve this problem within two hours.
3. Basic boiler plate code will be provided to you.
4. It is **mandatory** to refer the **README.md** file as it contains the informations about running the test cases.
5. Don't change the sample\_input and test files, as it may result to the failure of the test cases.
6. You can run your custom inputs by specifying the same in the custom\_input.txt file and use the same while building the code.