

Write a Program to create a class named as Product.
Product has following attribute

Attribute details	Attribute Name
Unique identification number	id
Product Name	name
Product Price	price
Product Quantity	qty

```
1 class Product:
2     def __init__(self, id, name, price, qty):
3         self.id = id                # Unique identification number
4         self.name = name            # Product Name
5         self.price = price          # Product Price
6         self.qty = qty              # Product Quantity
7
8     def display_product_info(self):
9         """Display the details of the product."""
10        print(f"Unique identification number : {self.id}")
11        print(f"Unique identification number : {self.name}")
12        print(f"Unique identification number : {self.price}₹")
13        print(f"Unique identification number : {self.qty}")
14
15 # Creating an instance of Product
16 prd1 = Product(101, "Laptop", 999.99, 15)
17
18 # Displaying the product details
19 prd1.display_product_info()
```

Define following methods and constructor :

constructor to initialise Product id.

Method to get product details as Name,Price and Quantity

Method to display a product.

```
1 class Product:
2     def __init__(self, product_id):
3         # Constructor to initialize Product ID
4         self.product_id = product_id
5         self.name = ""           # Placeholder for product name
6         self.price = 0.0         # Placeholder for product price
7         self.quantity = 0       # Placeholder for product quantity
8
9     def get_product_details(self, name, price, quantity):
10        # Method to get product details (Name, Price, and Quantity)
11        self.name = name
12        self.price = price
13        self.quantity = quantity
14
15    def display_product(self):
16        # Method to display product details
17        print(f"Product ID: {self.product_id}")
18        print(f"Product Name: {self.name}")
19        print(f"Price: ${self.price}")
20        print(f"Quantity: {self.quantity}")
21
22    # Creating an instance of the Product class
23    product1 = Product(101)
24
25    # Initializing product details
26    product1.get_product_details("Laptop", 1200.99, 5)
27
28    # Displaying the product information
29    product1.display_product()
30
```

Explanation

1. **Constructor __init__:**

- Automatically called when an object is instantiated.
- Initializes the `product_id` along with placeholder attributes for `name`, `price`, and `quantity`.

2. **get_product_details Method:**

- Updates the **name**, **price**, and **quantity** attributes of the product.

3. **display_product Method:**

- Prints all product details, including ID, name, price, and quantity.