Lab Task 6

Write the following classes:

Product
int productId String productName double price int availableQuantity
Product( ) Product(int productId, String productName, double price, int availableQuantity) void setProductId(int productId) void setProductName(String productName) void setPrice(double price) void setAvailableQuantity(int availableQuantity) int getProductId( ) String getProductName( ) double getPrice( ) int getAvailableQuantity( ) void buyProducts(int quantity) void sellProducts(int quantity)

Shop
String shopName Product [ ]products
Shop( ) Shop(String shopName, int sizeOfArray) void setShopName(String shopName) String getShopName( ) Product getProduct(int productId) void addProduct(Product p) void removeProduct(Product p)

Write a class **Start** that contains the main method. Inside the main method do the followings:

- Create **one** object (s1) of the *Shop* class by using its parameterized constructor.
- Create **four** objects (p1, p2, p3, p4) of the *Product* class by using its parameterized constructor.
- Add **p1, p2** and **p3** in the products[ ] array.
- Display the shopName. Also, display the details of all the products in the products[ ] array by using a loop.
- From the products[ ] array, search for the p2 product and buy 5 quantities of it.
- From the products[ ] array, search for the p3 product and sell 5 quantities of it.
- Display the details of all the products in the products[ ] array by using a loop.
- Remove the product p1 from the array and then add the product p4.
- Display the details of all the products in the products[ ] array by using a loop.