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A warehouse uses a First-Come, First-Served (FCFS) system to manage product dispatch requests from various stores. Each dispatch request is handled in the order it was received. The inventory team uses a queue implemented via linked list to track and process these requests.

• Each request includes:

o Store Name

o Product ID

o Quantity requested

• As a dispatch clerk, your job is to process these requests in order.*/

```
package julyhometask;
import java.util.*;
class WareHouseNode
{
	String sto_name;
	int pro_id;
	int quantity;
	WareHouseNode next;
	WareHouseNode(String sto_name,int pro_id,int quantity)
	{
		this.sto_name=sto_name;
		this. pro_id=pro_id;
		this.quantity=quantity;
		this.next=null;

	}
}
public class july23ht
{
	WareHouseNode front,rear;
	july23ht()
```

```
{
        this.front=null;
        this.rear=null;

}
void enqueue(String sto_name,int pro_id,int quantity)
{
        WareHouseNode newNode=new WareHouseNode(sto_name,pro_id,quantity);
        if(rear==null)
        {
                front =rear=newNode;
        }
        else
        {
                rear.next=newNode;
                rear=newNode;

        }
        System.out.println("The Store  "+sto_name+"  need "+quantity+" quantity of the
product with ID "+pro_id+" and that order requested is placed successfully");


}
void dequeue()
{
        if(front==null)
        {
                System.out.println("The Warehouse is empty");
                return;
        }
        String name=front.sto_name;
```

```
                int proid=front.pro_id;
                int quan=front.quantity;
                front=front.next;
                System.out.println("The Store  "+name+"  need "+quan+" of the product with
ID"+proid+" and that order requested is displaced successfully");



        }
        void peek()
        {
                if(front==null)
                {
                        System.out.println("The ware house is empty");
                        return;


                }
                else
                {
                        System.out.println("The top request is:");
                        System.out.println("Store name:"+ front.sto_name+" Product Id:"+
front.pro_id+" Quantity:"+front.quantity);
                }
        }
        void display()
        {
                if(front==null)
                {
                        System.out.println("The ware house is empty");
                        return;


                }
                WareHouseNode temp=front;
```

```
		System.out.println("The items in the warehouse are:");
		while(temp!=null)
		{
			System.out.print("Store Name:"+ temp.sto_name+" Product ID:"+
temp.pro_id+" Quantity:"+ temp.quantity);
			System.out.println();
			temp=temp.next;

		}
		System.out.println();

	}
	public static void main(String[] args)
	{
		july23ht wh=new july23ht();
		Scanner sc=new Scanner(System.in);
		int choice;
		do
		{
			System.out.println("1.Place order\n2.Displace order\n3.View First
Order\n4.Display\n5.Exit");
			System.out.println("Enter the choice");
			choice=sc.nextInt();
			sc.nextLine();
			switch(choice)
			{
			case 1:
				System.out.println("Enter the Store name");
				String sto_name=sc.nextLine();
				System.out.println("Enter the product ID");
				int pro_id=sc.nextInt();
				System.out.println("Enter the number of quantities");
```

```
                int quantity=sc.nextInt();
                wh.enqueue(sto_name, pro_id, quantity);
                break;
            case 2:
                wh.dequeue();
                break;
            case 3:
                wh.peek();
                break;
            case 4:
                wh.display();
                break;
            case 5:
                System.out.println("The system is exiting----");
                break;
            }
        }while(choice!=5);

        }

}
```