

Team-based Project: Release # 3

Design pattern-Iterator Pattern for Menu items

User selects menu (choice 0), iterator gives access to elements of a collective object in a sequence. This, without revealing the core structure and implementation of this object. It can be used to display different menu items in the array.

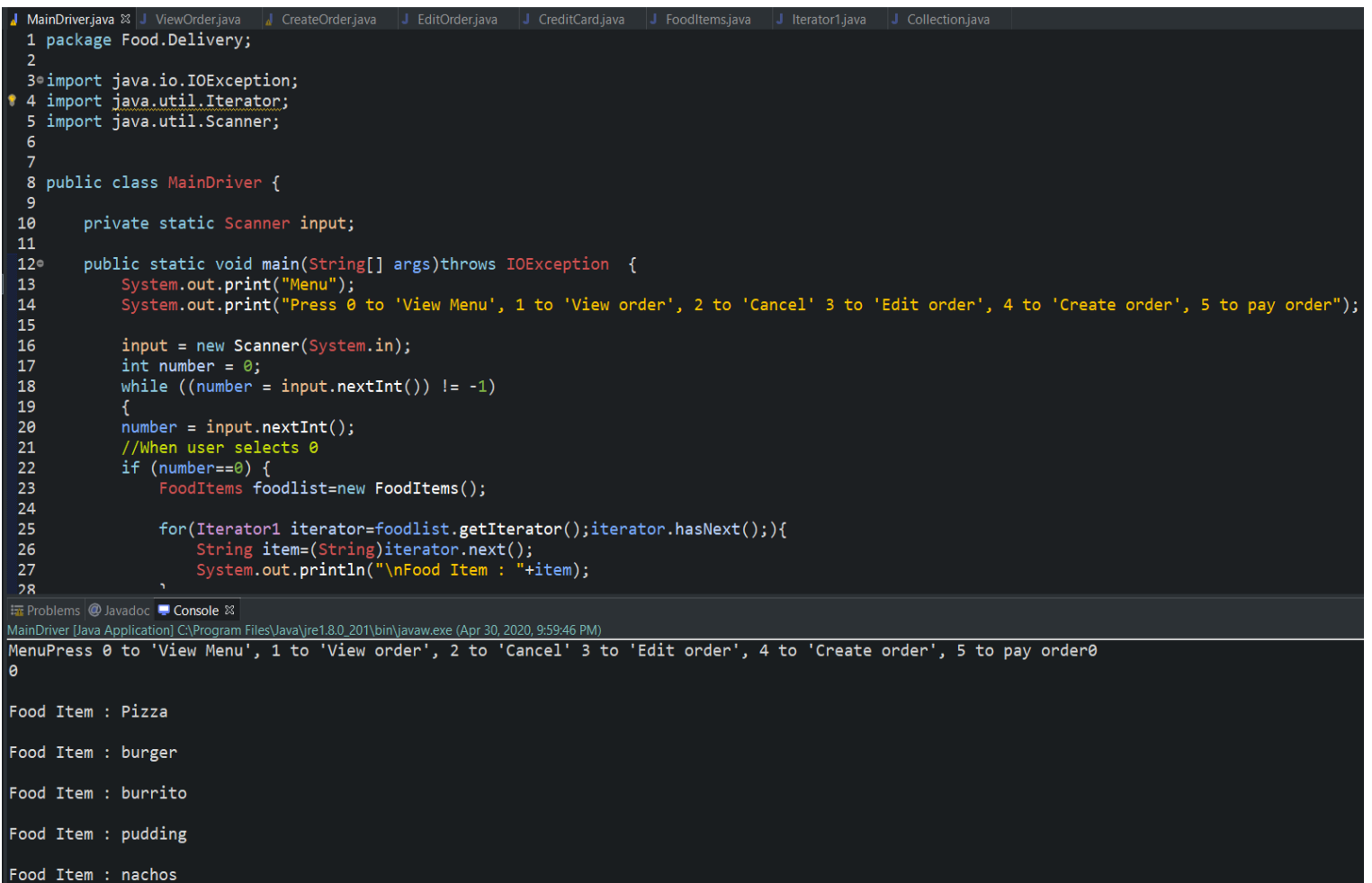
Location in code:

The iterator pattern is executed in the “MainDriver.java” file--> (Line 23 – 27) (First picture)

The iterator interface can be found under “interator1.java”.

The container interface is located at “Collection.java”.

The implementation of collection interface and class for “FoodItems” can be seen at “FoodItems.java”. (Second picture)



```
1 package Food.Delivery;
2
3 import java.io.IOException;
4 import java.util.Iterator;
5 import java.util.Scanner;
6
7
8 public class MainDriver {
9
10     private static Scanner input;
11
12     public static void main(String[] args) throws IOException {
13         System.out.print("Menu");
14         System.out.print("Press 0 to 'View Menu', 1 to 'View order', 2 to 'Cancel' 3 to 'Edit order', 4 to 'Create order', 5 to pay order");
15
16         input = new Scanner(System.in);
17         int number = 0;
18         while ((number = input.nextInt()) != -1)
19         {
20             number = input.nextInt();
21             //When user selects 0
22             if (number==0) {
23                 FoodItems foodlist=new FoodItems();
24
25                 for(Iterator1 iterator=foodlist.getIterator();iterator.hasNext();){
26                     String item=(String)iterator.next();
27                     System.out.println("\nFood Item : "+item);
28                 }
29             }
30         }
31     }
32 }
```

Problems Javadoc Console

MainDriver [Java Application] C:\Program Files\Java\jre1.8.0_201\bin\javaw.exe (Apr 30, 2020, 9:59:46 PM)

MenuPress 0 to 'View Menu', 1 to 'View order', 2 to 'Cancel' 3 to 'Edit order', 4 to 'Create order', 5 to pay order0

0

Food Item : Pizza

Food Item : burger

Food Item : burrito

Food Item : pudding

Food Item : nachos

```
MainDriver.java ViewOrder.java CreateOrder.java EditOrder.java CreditCard.java *FoodItems.java Iterator1.java Collection.java
1 package Food.Delivery;
2
3 //The implementation of Collection interface; create Fooditems class
4 public class FoodItems implements Collection{
5     public String items[]={"Pizza", "burger", "burrito", "pudding", "nachos"};
6
7     public Iterator1 getIterator(){
8         return new FoodItemIterator();
9     }
10
11
12     private class FoodItemIterator implements Iterator1 {
13         int j;
14
15         public boolean hasNext(){
16             if(j<items.length){
17                 return true;
18             }
19             return false;
20         }
21
22         public Object next(){
23             if(this.hasNext()){
24                 return items[j++];
25             }
26             return 0;
27         }
28     }
29 }
```