LinkedHashSet

What is a LinkedHashSet?

Ordered version of HashSet.

Inherits HashSet class, implements Set interface.

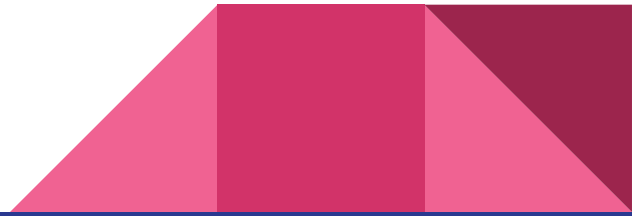
Doubly linked list across elements.

Used when iteration order is needed.

HashSet: Unpredictable order during iteration.

LinkedHashSet: Iteration order predictable.

Contains unique elements.



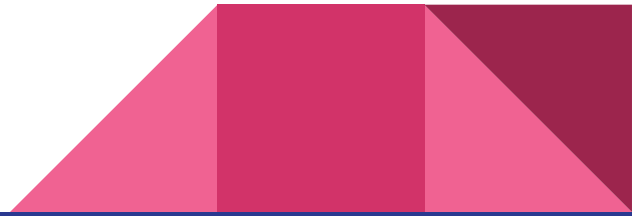
Creating a LinkedHashSet

LinkedHashSet(): Creates a default HashSet

LinkedHashSet(Collection c): Initializes the hashset with elements of collection c.

LinkedHashSet(int capacity): Initializes the hashset with the given capacity.

LinkedHashSet(int capacity,float fillRatio): Initializes the hashset with the given capacity and given fill ratio.



Example: Preserving insertion order

```
6  import java.io.FileNotFoundException;
7  import java.io.IOException;
8  import java.util.*;
9
10 public class Main extends Box {
11
12     public static void main(String[] args)  {
13
14         LinkedHashSet<String> l = new LinkedHashSet<String>();
15         l.add("Red");
16         l.add("Blue");
17         l.add("Green");
18         l.add("Yellow");
19
20         Iterator i = l.iterator();
21         while (i.hasNext()){
22             System.out.println(i.next());
23         }
24
25     }
26 }
27
```

Main › main()

Run: Main

```
/Library/Java/JavaVirtualMachines/jdk-13.0.2.jdk/Contents/Home/bin/java "-javaagent:/App
Red
Blue
Green
Yellow
```

Avoiding duplicate values

```
6  import java.io.FileNotFoundException;
7  import java.io.IOException;
8  import java.util.*;
9
10 public class Main extends Box {
11
12     public static void main(String[] args)  {
13
14         LinkedHashSet<String> l = new LinkedHashSet<String>();
15         l.add("Red");
16         l.add("Blue");
17         l.add("Green");
18         l.add("Yellow");
19         l.add("Red");
20
21         Iterator i = l.iterator();
22         while (i.hasNext()){
23             System.out.println(i.next());
24         }
25
26     }
27 }
```

Main › main()

Run: Main

```
/Library/Java/JavaVirtualMachines/jdk-13.0.2.jdk/Contents/Home/bi
Red
Blue
Green
Yellow
```

Saving objects

```
import java.util.*;

public class Main extends Box {

    public static void main(String[] args)  {

      LinkedHashSet<Car> l = new LinkedHashSet<Car>();
        Car c1 = new Car( p: 4000, m: "A1", b: "BMX");
        Car c2 = new Car( p: 5000, m: "A2", b: "BMX");
        Car c3 = new Car( p: 6000, m: "A3", b: "BMX");
        Car c4 = new Car( p: 8000, m: "A4", b: "BMX");

        l.add(c1);
        l.add(c2);
        l.add(c3);
        l.add(c4);

      for(Car car:l){
          System.out.println(car.brand+"  "+car.model+"  "+car.price);
      }

    }
```

Main › main()

Main

```
/Library/Java/JavaVirtualMachines/jdk-13.0.2.jdk/Contents/Home/bin/java "-javaage
BMX  A1  4000
BMX  A2  5000
BMX  A3  6000
BMX  A4  8000
```