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public class ExceptionArrayListHashMap {
    public static void main(String[] args) {
        ArrayList<Integer> arrList = new ArrayList<>();
        HashMap<String, Integer> map = new HashMap<>();
        try {
            try {
                arrList.addAll(Arrays.asList(1,2,3,4,5,0));
                System.out.println("The size of the array List is : " + arrList.size());
                System.out.println("Value Of 2 is " + arrList.get(2));
                arrList.set(1, 8);
                arrList.remove(index: 2);
                System.out.println("index Of 5 is " + arrList.indexOf(5));
                System.out.println("last index Of 6 is " + arrList.lastIndexOf( 0: 6));

                System.out.println("Iterating the elements in forward direction: ");
                ListIterator listIt = arrList.listIterator();
                while (listIt.hasNext()) {
                    System.out.print(listIt.next() + " ");
                }
                System.out.println();
                System.out.println("Iterating the elements in backword direction: ");
                while (listIt.hasPrevious()) {
                    System.out.print(listIt.previous() + " ");
                }
                System.out.println();
            }
        }
    }
}

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        System.out.println();
        Collections.sort(arrList);
        System.out.println(arrList);
        Collections.sort(arrList, Comparator.reverseOrder());
        System.out.println(arrList);
        int div = arrList.get(0) / arrList.get(4);
        arrList.removeAll(c: null);
    } catch (ArithmeticException ex) {
        System.out.println(ex);
    } catch (IndexOutOfBoundsException e) {
        System.out.println(e);
    } catch (NullPointerException e) {
        System.out.println(e);
    } catch (Exception e) {
        System.out.println(e);
    }
}
try {
    map.put("Tamim", 22);
    map.put("Shanto", 0);
    map.put("Shakib", 87);
    map.put("mushfig", 126);
    System.out.println("mustafizur run: " + map.get("mustafizur"));
    System.out.println("Mosaddek is on the list? " + map.containsKey("Mosaddek"));
    System.out.println("Shakib is on the list? " + map.containsKey("Shakib"));
    map.remove(key: "mushfig");
    map.replace("mustafizur", 90);
}

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        map.put("Shakib", 87);
        map.put("mushfig", 126);
        System.out.println("mustafizur run: " + map.get("mustafizur"));
        System.out.println("Mosaddek is on the list? " + map.containsKey("Mosaddek"));
        System.out.println("Shakib is on the list? " + map.containsKey("Shakib"));
        map.remove(key: "mushfig");
        map.replace("mustafizur", 90);
        System.out.println("Total size of the map list: " + map.size());
        for (String name : map.keySet()) {
            System.out.println(name + " runs: " + map.get(name));
        }
        map.clear();
        System.out.println("After clear, the size of map is " + map.size());

    } catch (Exception e) {
        System.out.println(e);
    }

} catch (Exception e) {
    System.out.println(e);
} finally {
    System.out.println("I will be executed in exceptional case don't worry!!!!");
}
}

```

```
ExceptionArrayListHashMap x
C:\Users\BJIT\.jdk\openjdk-20\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA\lib\idea_rt.jar"
The size of the array List is :6
Value Of 2 is 3
index Of 5 is 3
last index Of 6 is -1
Iterating the elements in forward direction:
1 8 4 5 0
Iterating the elements in backward direction:
0 5 4 8 1
[0, 1, 4, 5, 8]
[8, 5, 4, 1, 0]
java.lang.ArithmeticException: / by zero
mustafizur run: null
Mosaddek is on the list? false
Shakib is on the list? true
Total size of the map list: 3
Shakib runs: 87
Shanto runs: 0
Tamim runs: 22
After clear, the size of map is 0
I will be executed in exceptional case don't worry!!!!
```