

231215

자바스프링

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<http://blog.naver.com/sophia2164/223294964357>

```
JavaExm12_15_01.java x
1 package ListMap;
2
3 import java.util.ArrayList;
4
5 public class JavaExm12_15_01 {
6     public static void main(String[] args){
7         ArrayList pitches = new ArrayList();
8         pitches.add("138");
9         pitches.add("129");
10        pitches.add("145");
11
12        System.out.println(pitches.get(0));    pitches에서 0번째 값
13        System.out.println(pitches.get(2));    pitches에서 2번째 값
14        System.out.println(pitches.size());    pitches의 크기 (길이)
15        System.out.println(pitches.contains("140"));    pitches에서 "140"이 포함되었는지?
16
17        System.out.println(pitches.remove(index: 0));    pitches에서 0번째 값을 삭제
18        System.out.println(pitches.get(0));    pitches에서 0번째 값? (삭제 후라서 바뀜)
19        System.out.println(pitches.get(1));    pitches에서 1번째 값?
20
21        System.out.println(pitches.remove(o: "129"));    pitches 에서 object "129"를 삭제해 (true가 뜨고 삭제된다)
22        System.out.println(pitches.get(0));
23    }
24 }
```

Run JavaExm12_15_01 x

↑ ↓ ↕ ↶ ↷

```
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Commu
138
145
3
false
138
129
145
true
145
```

```
ArrayList pitches = new ArrayList(); //최초의형태  
ArrayList<String> pitches = new ArrayList<String>(); // 앞뒤로 2번이나 String이라고 쓸 필요가 없지 않냐?  
ArrayList<String> pitches = new ArrayList(); // 최종 변형되었음
```

```
1 package ListMap;  
2  
3 import java.util.HashMap;  
4 public class Javaex12_15_03 {  
5     public static void main(String[] args){  
6         HashMap<String, String> map = new HashMap<>();  
7         map.put("people", "사람"); ( 키, 값 )  
8         map.put("baseball", "야구");  
9         System.out.println(map.get("people"));  
10    }  
11 }
```

Run Javaex12_15_03 x



"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\
사람

```
JavaExm12_15_02.java  JavaExm12_15_03.java  JavaExm12_15_04.java ×
1  package ListMap;
2
3  import java.util.HashSet;
4  import java.util.Arrays;
5  ▶ public class JavaExm12_15_04 {
6
7  ▶ public static void main (String[] args) {
8
9      // 1.
10     // HashSet<String> set = new HashSet<>(Arrays.asList("h","e","l", "l", "o"));
11     // System.out.println(set);
12
13     // 2.
14     HashSet<Integer> s1 = new HashSet<>(Arrays.asList(1, 2, 3, 4, 5, 6, 7));
15     HashSet<Integer> s2 = new HashSet<>(Arrays.asList(2, 4, 6, 8, 10));
16
17     HashSet<Integer> intersection = new HashSet<>(s1);
18     intersection.retainAll(s2);
19
20     HashSet<Integer> union = new HashSet<>(s1);
21     union.addAll(s2);
22
23     HashSet<Integer> subtract = new HashSet<>(s1);
24     subtract.removeAll(s2);
25
26     System.out.println(intersection); // 교집합
27     System.out.println(union); // 전체
28     System.out.println(subtract); // 차집합
29 }
30 }
```

Run JavaExm12_15_04 ×

```
"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA\bin\jetbrains-agent.jar" -Dfile.encoding=UTF-8
[2, 4, 6]
[1, 2, 3, 4, 5, 6, 7, 8, 10]
[1, 3, 5, 7]
Process finished with exit code 0
```

```
© JavaExm12_15_02.java    © JavaExm12_15_03.java    © JavaExm12_15_04.java ×
1  package ListMap;
2
3  import java.util.HashSet;
4  import java.util.Arrays;
5  ▶ public class JavaExm12_15_04 {
6
7  ▶ public static void main (String[] args) {
8
9      //    1.
10     HashSet<String> set = new HashSet<>(Arrays.asList("h","e","l", "l", "o"));
11     System.out.println(set); // 중복제거, 오름차순
12
13     //    2
14
15 }
16 }
```

Run JavaExm12_15_04 ×

↑ "C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\I
↓ [e, h, l, o]

JavaExm12_15_06.java × 3개 점수 가지고
합계, 평균점수 구하기

```
1 package ListMap;
2
3 public class JavaExm12_15_06 {
4     public static void main (String[] args) {
5         int a=65;
6         int b=88;
7         int c=73;
8
9         int sum = a+b+c;
10        int avg= (a+b+c)/3;
11
12        System.out.println(sum);
13        System.out.println(avg);
14    }
15 }
```

Run JavaExm12_15_06 ×

↶ ■ ⋮

↑ "C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Pr
226
↓ 75
—

```
© JavaExm12_15_06.java × © JavaExm12_15_07.java © JavaExm01.java © JavaExm12_14_01.java

1 package ListMap;
2 public class JavaExm12_15_06 {
3     public static void main (String[] args) {
4         //     예제1. 평균점수 구하기
5         int a=65;
6         int b=88;
7         int c=73;
8
9         int sum = a+b+c;
10        int avg= (a+b+c)/3;
11
12        System.out.println(sum);
13        System.out.println(avg);
14
15        // 예제2. 주민등록번호를 앞자리와 뒷자리로 나누기
16        String data = "911030-2123456";
17        String birth= "";
18        String no="";
19
20        birth=data.substring(0,6);
21        no=data.substring(7,14);
22
23        System.out.println("출생년도: "+birth);
24        System.out.println("주민번호: "+no);
25
26    }
27 }
```

Run JavaExm12_15_06 ×

↑ 226
↓ 75
⇌ 출생년도: 911030
⇓ 주민번호: 2123456

```
Project Alt+1 5_06.java x © JavaExm12_15_02.java
33 // 예제3. arrayList와 asList 배열문제
34 // [1,7,2,4,5,3,6]
35
36 // 역순출력
37 // [7,6,5,4,3,2,1]
38
39
40 ArrayList<String> exm1 = new ArrayList<>(Arrays.asList("1","7","2","4","5","3","6"));
41
42 exm1.sort(Comparator.reverseOrder()); // 내림차순 reverse
43 System.out.println(exm1);
44 }
45 }
46

Run JavaExm12_15_06 x

"C:\Program Files\Java\jdk-17\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Co
[7, 6, 5, 4, 3, 2, 1]
```