Java EnumSet class

Java EnumSet class is the specialized Set implementation for use with enum types. It inherits AbstractSet class and implements the Set interface.

EnumSet class hierarchy

The hierarchy of EnumSet class is given in the figure given below.

EnumSet class declaration

Let's see the declaration for java.util.EnumSet class.

1. **public** **abstract** **class** EnumSet<E **extends** Enum<E>> **extends** AbstractSet<E> **implements** Cloneable, Serializable

Methods of Java EnumSet class

|  |  |
| --- | --- |
| **Method** | **Description** |
| static <E extends Enum<E>> EnumSet<E> allOf(Class<E> elementType) | It is used to create an enum set containing all of  the elements in the specified element type. |
| static <E extends Enum<E>> EnumSet<E> copyOf(Collection<E> c) | It is used to create an enum set initialized from the  specified collection. |
| static <E extends Enum<E>> EnumSet<E> noneOf(Class<E> elementType) | It is used to create an empty enum set with the  specified element type. |
| static <E extends Enum<E>> EnumSet<E> of(E e) | It is used to create an enum set initially containing  the specified element. |
| static <E extends Enum<E>> EnumSet<E> range(E from, E to) | It is used to create an enum set initially containing  the specified elements. |
| EnumSet<E> clone() | It is used to return a copy of this set. |

Java EnumSet Example

1. **import** java.util.\*;
2. **enum** days {
3. SUNDAY, MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY
4. }
5. **public** **class** EnumSetExample {
6. **public** **static** **void** main(String[] args) {
7. Set<days> set = EnumSet.of(days.TUESDAY, days.WEDNESDAY);
8. // Traversing elements
9. Iterator<days> iter = set.iterator();
10. **while** (iter.hasNext())
11. System.out.println(iter.next());
12. }
13. }

Output:

TUESDAY

WEDNESDAY

Java EnumSet Example: allOf() and noneOf()

1. **import** java.util.\*;
2. **enum** days {
3. SUNDAY, MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY
4. }
5. **public** **class** EnumSetExample {
6. **public** **static** **void** main(String[] args) {
7. Set<days> set1 = EnumSet.allOf(days.**class**);
8. System.out.println("Week Days:"+set1);
9. Set<days> set2 = EnumSet.noneOf(days.**class**);
10. System.out.println("Week Days:"+set2);
11. }
12. }

Output:

Week Days:[SUNDAY, MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY]

Week Days:[]