Java.util Package in Java

Java.util Package

It contains the collections framework, legacy collection classes, event model, date and time facilities, internationalization, and miscellaneous utility classes (a string tokenizer, a random-number generator, and a bit array).

Following are the Important Classes in Java.util package:

- 1. **AbstractCollection**: This class provides a skeletal implementation of the Collection interface, to minimize the effort required to implement this interface.
- 2. **AbstractList**: This class provides a skeletal implementation of the List interface to minimize the effort required to implement this interface backed by a "random access" data store (such as an array).
- 3. AbstractMap<K,V>: This class provides a skeletal implementation of the Map interface, to minimize the effort required to implement this interface.
- 4. **AbstractMap.SimpleEntry<K,V>**: An Entry maintaining a key and a value.
- 5. **AbstractMap.SimpleImmutableEntry<K,V>**: An Entry maintaining an immutable key and value.
- AbstractQueue: This class provides skeletal implementations of some Queue operations.
- 7. **AbstractSequentialList**: This class provides a skeletal implementation of the List interface to minimize the effort required to implement this interface backed by a "sequential access" data store (such as a linked list).
- 8. **AbstractSet**: This class provides a skeletal implementation of the Set interface to minimize the effort required to implement this interface.
- 9. **ArrayDeque**: Resizable-array implementation of the Deque interface.
- 10. **ArrayList**: Resizable-array implementation of the List interface.
- 11. <u>Arrays</u>: This class contains various methods for manipulating arrays (such as sorting and searching).
- 12. BitSet: This class implements a vector of bits that grows as needed.
- 13. Calendar: The Calendar class is an abstract class that provides methods for converting between a specific instant in time and a set of calendar fields such as YEAR, MONTH, DAY_OF_MONTH, HOUR, and so on, and for manipulating the calendar fields, such as getting the date of the next week.
- 14. Collections: This class consists exclusively of static methods that operate on or return collections.
- 15. **Currency**: Represents a currency.
- 16. <u>Date</u>: The class Date represents a specific instant in time, with millisecond precision.
- 17. <u>Dictionary<K,V></u>: The Dictionary class is the abstract parent of any class, such as Hashtable, which maps keys to values.
- 18. EnumMap, V>: A specialized Map implementation for use with enum type keys.
- 19. EnumSet: A specialized Set implementation for use with enum types.
- 20. EventListenerProxy: An abstract wrapper class for an EventListener class which associates a set of additional parameters with the listener.

- 21. EventObject: The root class from which all event state objects shall be derived.
- 22. **FormattableFlags**: FomattableFlags are passed to the Formattable.formatTo() method and modify the output format for Formattables.
- 23. Formatter: An interpreter for printf-style format strings.
- 24. **GregorianCalendar**: GregorianCalendar is a concrete subclass of Calendar and provides the standard calendar system used by most of the world.
- 25. <u>HashMap<K,V></u>: Hash table based implementation of the Map interface.
- 26. <u>HashSet</u>: This class implements the Set interface, backed by a hash table (actually a HashMap instance).
- 27. Hashtable<K,V>: This class implements a hash table, which maps keys to values.
- 28. <u>IdentityHashMap<K,V></u>: This class implements the Map interface with a hash table, using reference-equality in place of object-equality when comparing keys (and values).
- 29. <u>LinkedHashMap<K,V></u>: Hash table and linked list implementation of the Map interface, with predictable iteration order.
- 30. <u>LinkedHashSet</u>: Hash table and linked list implementation of the Set interface, with predictable iteration order.
- 31. LinkedList: Doubly-linked list implementation of the List and Deque interfaces.
- 32. ListResourceBundle: ListResourceBundle is an abstract subclass of ResourceBundle that manages resources for a locale in a convenient and easy to use list.
- 33. Locale <u>Set 1</u>, <u>Set 2</u>: A Locale object represents a specific geographical, political, or cultural region.
- 34. Locale.Builder: Builder is used to build instances of Locale from values configured by the setters.
- 35. Objects: This class consists of static utility methods for operating on objects.
- 36. Observable: This class represents an observable object, or "data" in the model-view paradigm.
- 37. PriorityQueue: An unbounded priority queue based on a priority heap.
- 38. Properties: The Properties class represents a persistent set of properties.
- 39. PropertyPermission: This class is for property permissions.
- 40. **PropertyResourceBundle**: PropertyResourceBundle is a concrete subclass of ResourceBundle that manages resources for a locale using a set of static strings from a property file.
- 41. Random: An instance of this class is used to generate a stream of pseudorandom numbers.
- 42. Resource Bundle: Resource bundles contain locale-specific objects.
- 43. ResourceBundle.Control: ResourceBundle.Control defines a set of callback methods that are invoked by the ResourceBundle.getBundle factory methods during the bundle loading process.
- 44. <u>Scanner</u>: A simple text scanner which can parse primitive types and strings using regular expressions.
- 45. ServiceLoader: A simple service-provider loading facility.
- 46. **SimpleTimeZone**: SimpleTimeZone is a concrete subclass of TimeZone that represents a time zone for use with a Gregorian calendar.
- 47. Stack: The Stack class represents a last-in-first-out (LIFO) stack of objects.
- 48. <u>StringTokenizer</u>: The string tokenizer class allows an application to break a string into tokens.

- 49. <u>Timer</u>: A facility for threads to schedule tasks for future execution in a background thread.
- 50. <u>TimerTask</u>: A task that can be scheduled for one-time or repeated execution by a Timer.
- 51. **TimeZone**: TimeZone represents a time zone offset, and also figures out daylight savings.
- 52. **TreeMap<K,V>**: A Red-Black tree based NavigableMap implementation.
- 53. TreeSet: A NavigableSet implementation based on a TreeMap.
- 54. **UUID**: A class that represents an immutable universally unique identifier (UUID).
- 55. Vector: The Vector class implements a growable array of objects.
- 56. **WeakHashMap<K,V>**: Hash table based implementation of the Map interface, with weak keys.