## **String Methods**

Sr.No	Methods with Description
1	char charAt(int index) Returns the character at the specified index.
2	int compareTo(Object o) Compares this String to another Object.
3	int compareTo(String anotherString) Compares two strings lexicographically.
4	int compareToIgnoreCase(String str)z Compares two strings lexicographically, ignoring case differences.
5	String concat(String str) Concatenates the specified string to the end of this string.
6	boolean contentEquals(StringBuffer sb) Returns true if and only if this String represents the same sequence of characters as the specified StringBuffer.
7	static String copyValueOf(char[] data) Returns a String that represents the character sequence in the array specified.
8	static String copyValueOf(char[] data, int offset, int count) Returns a String that represents the character sequence in the array specified.
9	boolean endsWith(String suffix) Tests if this string ends with the specified suffix.
10	boolean equals(Object anObject) Compares this string to the specified object.
11	boolean equalsIgnoreCase(String anotherString) Compares this String to another String, ignoring case considerations.
12	byte getBytes() Encodes this String into a sequence of bytes using the platform's default charset, storing the result into a new byte array.
13	byte[] getBytes(String charsetName) Encodes this String into a sequence of bytes using the named charset, storing the result into a new byte array.
14	void getChars(int srcBegin, int srcEnd, char[] dst, int dstBegin) Copies characters from this string into the destination character array.

15	int hashCode() Returns a hash code for this string.
16	int indexOf(int ch) Returns the index within this string of the first occurrence of the specified character.
17	int indexOf(int ch, int fromIndex) Returns the index within this string of the first occurrence of the specified character, starting the search at the specified index.
18	int indexOf(String str) Returns the index within this string of the first occurrence of the specified substring.
19	int indexOf(String str, int fromIndex) Returns the index within this string of the first occurrence of the specified substring, starting at the specified index.
20	String intern() Returns a canonical representation for the string object.
21	int lastIndexOf(int ch) Returns the index within this string of the last occurrence of the specified character.
22	int lastIndexOf(int ch, int fromIndex) Returns the index within this string of the last occurrence of the specified character, searching backward starting at the specified index.
23	int lastIndexOf(String str) Returns the index within this string of the rightmost occurrence of the specified substring.
24	int lastIndexOf(String str, int fromIndex) Returns the index within this string of the last occurrence of the specified substring, searching backward starting at the specified index.
25	int length() Returns the length of this string.
26	boolean matches(String regex) Tells whether or not this string matches the given regular expression.
27	boolean regionMatches(boolean ignoreCase, int toffset, String other, int offset, int len) Tests if two string regions are equal.
28	boolean regionMatches(int toffset, String other, int offset, int len) Tests if two string regions are equal.
29	String replace(char oldChar, char newChar)

	Returns a new string resulting from replacing all occurrences of oldChar in this string with newChar.
30	String replaceAll(String regex, String replacement Replaces each substring of this string that matches the given regular expression with the given replacement.
31	String replaceFirst(String regex, String replacement) Replaces the first substring of this string that matches the given regular expression with the given replacement.
32	String[] split(String regex) Splits this string around matches of the given regular expression.
33	String[] split(String regex, int limit) Splits this string around matches of the given regular expression.
34	boolean startsWith(String prefix) Tests if this string starts with the specified prefix.
35	boolean startsWith(String prefix, int toffset) Tests if this string starts with the specified prefix beginning a specified index.
36	CharSequence subSequence(int beginIndex, int endIndex) Returns a new character sequence that is a subsequence of this sequence.
37	String substring(int beginIndex) Returns a new string that is a substring of this string.
38	String substring(int beginIndex, int endIndex) Returns a new string that is a substring of this string.
39	char[] toCharArray() Converts this string to a new character array.
40	String toLowerCase() Converts all of the characters in this String to lower case using the rules of the default locale.
41	String toLowerCase(Locale locale) Converts all of the characters in this String to lower case using the rules of the given Locale.
42	String toString() This object (which is already a string!) is itself returned.
43	String toUpperCase() Converts all of the characters in this String to upper case using the rules of the default locale.

44	String toUpperCase(Locale locale) Converts all of the characters in this String to upper case using the rules of the given Locale.
45	String trim() Returns a copy of the string, with leading and trailing whitespace omitted.
46	static String valueOf(primitive data type x) Returns the string representation of the passed data type argument.

## **Array Methods**

Sr.No	Methods with Description
1	def apply(x: T, xs: T*): Array[T] Creates an array of T objects, where T can be Unit, Double, Float, Long, Int, Char, Short, Byte, Boolean.
2	def concat[T]( xss: Array[T]* ): Array[T] Concatenates all arrays into a single array.
3	def copy( src: AnyRef, srcPos: Int, dest: AnyRef, destPos: Int, length: Int ): Unit Copy one array to another. Equivalent to Java's System.arraycopy(src, srcPos, dest, destPos, length).
4	def empty[T]: Array[T] Returns an array of length 0
5	<pre>def iterate[T]( start: T, len: Int )( f: (T) =&gt; T ): Array[T] Returns an array containing repeated applications of a function to a start value.</pre>
6	<pre>def fill[T]( n: Int )(elem: =&gt; T): Array[T] Returns an array that contains the results of some element computation a number of times.</pre>
7	<pre>def fill[T]( n1: Int, n2: Int )( elem: =&gt; T ): Array[Array[T]] Returns a two-dimensional array that contains the results of some element computation a number of times.</pre>
8	<pre>def iterate[T]( start: T, len: Int)( f: (T) =&gt; T ): Array[T] Returns an array containing repeated applications of a function to a start value.</pre>
9	def ofDim[T]( n1: Int ): Array[T]

	Creates array with given dimensions.
10	def ofDim[T]( n1: Int, n2: Int ): Array[Array[T]] Creates a 2-dimensional array
11	def ofDim[T]( n1: Int, n2: Int, n3: Int ): Array[Array[Array[T]]] Creates a 3-dimensional array
12	def range( start: Int, end: Int, step: Int ): Array[Int] Returns an array containing equally spaced values in some integer interval.
13	def range( start: Int, end: Int ): Array[Int] Returns an array containing a sequence of increasing integers in a range.
14	<pre>def tabulate[T]( n: Int )(f: (Int)=&gt; T): Array[T] Returns an array containing values of a given function over a range of integer values starting from 0.</pre>
15	<pre>def tabulate[T]( n1: Int, n2: Int )( f: (Int, Int ) =&gt; T): Array[Array[T]] Returns a two-dimensional array containing values of a given function over ranges of integer values starting from 0.</pre>

#### **List Methods**

Sr.No	Methods with Description
1	def +(elem: A): List[A] Prepends an element to this list
2	def ::(x: A): List[A] Adds an element at the beginning of this list.
3	def :::(prefix: List[A]): List[A]  Adds the elements of a given list in front of this list.

4	ef ::(x: A): List[A]  dds an element x at the beginning of the list
5	ef addString(b: StringBuilder): StringBuilder ppends all elements of the list to a string builder.
6 A <sub>I</sub>	ef addString(b: StringBuilder, sep: String): StringBuilder ppends all elements of the list to a string builder using a eparator string.
7	ef apply(n: Int): A elects an element by its index in the list.
8	ef contains(elem: Any): Boolean ests whether the list contains a given value as an element.
9 Co	opies elements of the list to an array. Fills the given array xs ith at most length (len) elements of this list, beginning at osition start.
10	ef distinct: List[A] uilds a new list from the list without any duplicate elements.
11	ef drop(n: Int): List[A] eturns all elements except first n ones.
12	ef dropRight(n: Int): List[A] eturns all elements except last n ones.
13	ef dropWhile(p: (A) => Boolean): List[A] rops longest prefix of elements that satisfy a predicate.
14 de	ef endsWith[B](that: Seq[B]): Boolean

	Tests whether the list ends with the given sequence.
	def equals(that: Any): Boolean
15	The equals method for arbitrary sequences. Compares this sequence to some other object.
	def exists(p: (A) => Boolean): Boolean
16	Tests whether a predicate holds for some of the elements of the list.
17	<pre>def filter(p: (A) =&gt; Boolean): List[A]</pre>
17	Returns all elements of the list which satisfy a predicate.
18	def forall(p: (A) => Boolean): Boolean
10	Tests whether a predicate holds for all elements of the list.
19	def foreach(f: (A) => Unit): Unit
	Applies a function f to all elements of the list.
20	def head: A
	Selects the first element of the list.
	def indexOf(elem: A, from: Int): Int
21	Finds index of first occurrence value in the list, after the index position.
22	def init: List[A]
22	Returns all elements except the last.
	def intersect(that: Seq[A]): List[A]
23	Computes the multiset intersection between the list and another sequence.
24	def isEmpty: Boolean

	Tests whether the list is empty.
25	def iterator: Iterator[A]  Creates a new iterator over all elements contained in the iterable object.
26	def last: A Returns the last element.
27	def lastIndexOf(elem: A, end: Int): Int  Finds index of last occurrence of some value in the list; before or at a given end index.
28	def length: Int Returns the length of the list.
29	<pre>def map[B](f: (A) =&gt; B): List[B] Builds a new collection by applying a function to all elements of this list.</pre>
30	def max: A Finds the largest element.
31	def min: A Finds the smallest element.
32	def mkString: String Displays all elements of the list in a string.
33	def mkString(sep: String): String  Displays all elements of the list in a string using a separator string.
34	def reverse: List[A]

def sorted[B >: A]: List[A] Sorts the list according to an Ordering.  def startsWith[B](that: Seq[B], offset: Int): Boolean Tests whether the list contains the given sequence at a given index.  def sum: A Sums up the elements of this collection.  def tail: List[A] Returns all elements except the first.  def take(n: Int): List[A] Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toSeq: Seq[A] Converts the list to a sequence.  def toSet[B >: A]: Set[B]		Returns new list with elements in reversed order.
Sorts the list according to an Ordering.  def startsWith[B](that: Seq[B], offset: Int): Boolean Tests whether the list contains the given sequence at a given index.  def sum: A Sums up the elements of this collection.  def tail: List[A] Returns all elements except the first.  def take(n: Int): List[A] Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	35	def sorted[B >: A]: List[A]
Tests whether the list contains the given sequence at a given index.  def sum: A Sums up the elements of this collection.  def tail: List[A] Returns all elements except the first.  def take(n: Int): List[A] Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	33	Sorts the list according to an Ordering.
def sum: A Sums up the elements of this collection.  def tail: List[A] Returns all elements except the first.  def take(n: Int): List[A] Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.		def startsWith[B](that: Seq[B], offset: Int): Boolean
Sums up the elements of this collection.  def tail: List[A] Returns all elements except the first.  def take(n: Int): List[A] Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	36	
Sums up the elements of this collection.  def tail: List[A] Returns all elements except the first.  def take(n: Int): List[A] Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	27	def sum: A
Returns all elements except the first.  def take(n: Int): List[A] Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	37	Sums up the elements of this collection.
Returns all elements except the first.  def take(n: Int): List[A] Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	38	def tail: List[A]
Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.		Returns all elements except the first.
Returns first "n" elements.  def takeRight(n: Int): List[A] Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	20	def take(n: Int): List[A]
40 Returns last "n" elements.  41 def toArray: Array[A] Converts the list to an array.  42 def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  43 def toMap[T, U]: Map[T, U] Converts this list to a map.  44 def toSeq: Seq[A] Converts the list to a sequence.	39	Returns first "n" elements.
Returns last "n" elements.  def toArray: Array[A] Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	40	def takeRight(n: Int): List[A]
Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	40	Returns last "n" elements.
Converts the list to an array.  def toBuffer[B >: A]: Buffer[B] Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	41	def toArray: Array[A]
Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.		Converts the list to an array.
Converts the list to a mutable buffer.  def toMap[T, U]: Map[T, U] Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	42	def toBuffer[B >: A]: Buffer[B]
Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	72	Converts the list to a mutable buffer.
Converts this list to a map.  def toSeq: Seq[A] Converts the list to a sequence.	42	def toMap[T, U]: Map[T, U]
Converts the list to a sequence.	45	Converts this list to a map.
Converts the list to a sequence.	44	def toSeq: Seq[A]
45 def toSet[B >: A]: Set[B]		Converts the list to a sequence.
	45	def toSet[B >: A]: Set[B]

	Converts the list to a set.
46	def toString(): String
70	Converts the list to a string.

#### **SET Methods**

Sr.No	Methods with Description
1	<pre>def +(elem: A): Set[A] Creates a new set with an additional element, unless the element is already present.</pre>
2	def -(elem: A): Set[A] Creates a new set with a given element removed from this set.
3	def contains(elem: A): Boolean Returns true if elem is contained in this set, false otherwise.
4	<pre>def &amp;(that: Set[A]): Set[A] Returns a new set consisting of all elements that are both in this set and in the given set.</pre>
5	<pre>def &amp;~(that: Set[A]): Set[A] Returns the difference of this set and another set.</pre>
6	def +(elem1: A, elem2: A, elems: A*): Set[A] Creates a new immutable set with additional elements from the passed sets
7	<pre>def ++(elems: A): Set[A] Concatenates this immutable set with the elements of another collection to this immutable set.</pre>
8	def -(elem1: A, elem2: A, elems: A*): Set[A] Returns a new immutable set that contains all elements of the current immutable set except one less occurrence of each of the given argument elements.
9	def addString(b: StringBuilder): StringBuilder Appends all elements of this immutable set to a string builder.

10	def addString(b: StringBuilder, sep: String): StringBuilder Appends all elements of this immutable set to a string builder using a separator string.
11	def apply(elem: A) Tests if some element is contained in this set.
12	<pre>def count(p: (A) =&gt; Boolean): Int Counts the number of elements in the immutable set which satisfy a predicate.</pre>
13	def copyToArray(xs: Array[A], start: Int, len: Int): Unit Copies elements of this immutable set to an array.
14	def diff(that: Set[A]): Set[A] Computes the difference of this set and another set.
15	def drop(n: Int): Set[A]] Returns all elements except first n ones.
16	def dropRight(n: Int): Set[A] Returns all elements except last n ones.
17	<pre>def dropWhile(p: (A) =&gt; Boolean): Set[A] Drops longest prefix of elements that satisfy a predicate.</pre>
18	def equals(that: Any): Boolean The equals method for arbitrary sequences. Compares this sequence to some other object.
19	<pre>def exists(p: (A) =&gt; Boolean): Boolean Tests whether a predicate holds for some of the elements of this immutable set.</pre>
20	<pre>def filter(p: (A) =&gt; Boolean): Set[A] Returns all elements of this immutable set which satisfy a predicate.</pre>
21	<pre>def find(p: (A) =&gt; Boolean): Option[A] Finds the first element of the immutable set satisfying a predicate, if any.</pre>
22	<pre>def forall(p: (A) =&gt; Boolean): Boolean Tests whether a predicate holds for all elements of this immutable set.</pre>
23	def foreach(f: (A) => Unit): Unit Applies a function f to all elements of this immutable set.
24	def head: A

	Returns the first element of this immutable set.
25	def init: Set[A] Returns all elements except the last.
26	defintersect(that: Set[A]): Set[A] Computes the intersection between this set and another set.
27	def isEmpty: Boolean Tests if this set is empty.
28	def iterator: Iterator[A] Creates a new iterator over all elements contained in the iterable object.
29	def last: A Returns the last element.
30	<pre>def map[B](f: (A) =&gt; B): immutable.Set[B] Builds a new collection by applying a function to all elements of this immutable set.</pre>
31	def max: A Finds the largest element.
32	def min: A Finds the smallest element.
33	def mkString: String Displays all elements of this immutable set in a string.
34	def mkString(sep: String): String Displays all elements of this immutable set in a string using a separator string.
35	def product: A Returns the product of all elements of this immutable set with respect to the * operator in num.
36	def size: Int Returns the number of elements in this immutable set.
37	def splitAt(n: Int): (Set[A], Set[A]) Returns a pair of immutable sets consisting of the first n elements of this immutable set, and the other elements.
38	def subsetOf(that: Set[A]): Boolean Returns true if this set is a subset of that, i.e. if every element of this set is also an element of that.

39	def sum: A Returns the sum of all elements of this immutable set with respect to the + operator in num.
40	def tail: Set[A] Returns a immutable set consisting of all elements of this immutable set except the first one.
41	def take(n: Int): Set[A] Returns first n elements.
42	def takeRight(n: Int):Set[A] Returns last n elements.
43	def toArray: Array[A] Returns an array containing all elements of this immutable set.
44	def toBuffer[B >: A]: Buffer[B] Returns a buffer containing all elements of this immutable set.
45	def toList: List[A] Returns a list containing all elements of this immutable set.
46	def toMap[T, U]: Map[T, U] Converts this immutable set to a map
47	def toSeq: Seq[A] Returns a seq containing all elements of this immutable set.
48	def toString(): String Returns a String representation of the object.

## **Map Methods**

Sr.No	Methods with Description
	def ++(xs: Map[(A, B)]): Map[A, B]
1	Returns a new map containing mappings of this map and those provided by xs.
	def -(elem1: A, elem2: A, elems: A*): Map[A, B]
2	Returns a new map containing all the mappings of this map except mappings with a key equal to elem1, elem2 or any of elems.
	def(xs: GTO[A]): Map[A, B]
3	Returns a new map with all the key/value mappings of this map except mappings with a key equal to a key from the traversable object xs.
4	def get(key: A): Option[B]
7	Optionally returns the value associated with a key.
5	def iterator: Iterator[(A, B)]
3	Creates a new iterator over all key/value pairs of this map
	def addString(b: StringBuilder): StringBuilder
6	Appends all elements of this shrinkable collection to a string builder.
	def addString(b: StringBuilder, sep: String): StringBuilder
7	Appends all elements of this shrinkable collection to a string builder using a separator string.
	def apply(key: A): B
8	Returns the value associated with the given key, or the result of the map's default method, if none exists.

	def clear(): Unit
9	Removes all bindings from the map. After this operation has completed, the map will be empty.
10	def clone(): Map[A, B]
	Creates a copy of the receiver object.
	def contains(key: A): Boolean
11	Returns true if there is a binding for key in this map, false otherwise.
	def copyToArray(xs: Array[(A, B)]): Unit
12	Copies values of this shrinkable collection to an array. Fills the given array xs with values of this shrinkable collection.
	def count(p: ((A, B)) => Boolean): Int
13	Counts the number of elements in the shrinkable collection which satisfy a predicate.
	def default(key: A): B
14	Defines the default value computation for the map, returned when a key is not found.
15	def drop(n: Int): Map[A, B]
	Returns all elements except first n ones.
16	def dropRight(n: Int): Map[A, B]
	Returns all elements except last n ones
17	def dropWhile(p: ((A, B)) => Boolean): Map[A, B]
	Drops longest prefix of elements that satisfy a predicate.
18	def empty: Map[A, B]
	Returns the empty map of the same type.
	·

	def equals(that: Any): Boolean
19	Returns true if both maps contain exactly the same keys/values, false otherwise.
	def exists(p: ((A, B)) => Boolean): Boolean
20	Returns true if the given predicate p holds for some of the elements of this shrinkable collection, otherwise false.
	def filter(p: ((A, B))=> Boolean): Map[A, B]
21	Returns all elements of this shrinkable collection which satisfy a predicate.
	def filterKeys(p: (A) => Boolean): Map[A, B]
22	Returns an immutable map consisting only of those key value pairs of this map where the key satisfies the predicate p.
	<pre>def find(p: ((A, B)) =&gt; Boolean): Option[(A, B)]</pre>
23	Finds the first element of the shrinkable collection satisfying a predicate, if any.
	def foreach(f: ((A, B)) => Unit): Unit
24	Applies a function f to all elements of this shrinkable collection.
25	def init: Map[A, B]
25	Returns all elements except the last.
26	def isEmpty: Boolean
20	Tests whether the map is empty.
27	def keys: Iterable[A]
	Returns an iterator over all keys.
28	def last: (A, B)
20	Returns the last element.

29	def max: (A, B)
	Finds the largest element.
30	def min: (A, B)
	Finds the smallest element.
24	def mkString: String
31	Displays all elements of this shrinkable collection in a string.
	def product: (A, B)
32	Returns the product of all elements of this shrinkable collection with respect to the * operator in num.
	def remove(key: A): Option[B]
33	Removes a key from this map, returning the value associated previously with that key as an option.
	def retain(p: (A, B) => Boolean): Map.this.type
34	Retains only those mappings for which the predicate p returns true.
35	def size: Int
	Return the number of elements in this map.
	def sum: (A, B)
36	Returns the sum of all elements of this shrinkable collection with respect to the + operator in num.
37	def tail: Map[A, B]
	Returns all elements except the first.
38	def take(n: Int): Map[A, B]
	Returns first n elements.

39	def takeRight(n: Int): Map[A, B] Returns last n elements.
40	<pre>def takeWhile(p: ((A, B)) =&gt; Boolean): Map[A, B] Takes longest prefix of elements that satisfy a predicate.</pre>
41	def toArray: Array[(A, B)]  Converts this shrinkable collection to an array.
42	def toBuffer[B >: A]: Buffer[B] Returns a buffer containing all elements of this map.
43	def toList: List[A] Returns a list containing all elements of this map.
44	def toSeq: Seq[A] Returns a seq containing all elements of this map.
45	def toSet: Set[A] Returns a set containing all elements of this map.
46	def toString(): String Returns a String representation of the object.

#### **Iterator methods**

Sr.No	Methods with Description
1	def hasNext: Boolean
	Tests whether this iterator can provide another element.
2	def next(): A
	Produces the next element of this iterator.
3	<pre>def ++(that: =&gt; Iterator[A]): Iterator[A]</pre>
	Concatenates this iterator with another.
4	<pre>def ++[B &gt;: A](that :=&gt; GenTraversableOnce[B]): Iterator[B]</pre>
•	Concatenates this iterator with another.
	def addString(b: StringBuilder): StringBuilder
5	Returns the string builder b to which elements were appended.
	def addString(b: StringBuilder, sep: String): StringBuilder
6	Returns the string builder b to which elements were appended using a separator string.
7	def buffered: BufferedIterator[A]
	Creates a buffered iterator from this iterator.
	def contains(elem: Any): Boolean
8	Tests whether this iterator contains a given value as an element.
9	def copyToArray(xs: Array[A], start: Int, len: Int): Unit
	Copies selected values produced by this iterator to an array.

	def count(p: (A) => Boolean): Int
10	Counts the number of elements in the traversable or iterator which satisfy a predicate.
	def drop(n: Int): Iterator[A]
11	Advances this iterator past the first n elements, or the length of the iterator, whichever is smaller.
	<pre>def dropWhile(p: (A) =&gt; Boolean): Iterator[A]</pre>
12	Skips longest sequence of elements of this iterator which satisfy given predicate p, and returns an iterator of the remaining elements.
	def duplicate: (Iterator[A], Iterator[A])
13	Creates two new iterators that both iterate over the same elements as this iterator (in the same order).
	def exists(p: (A) => Boolean): Boolean
14	Returns true if the given predicate p holds for some of the values produced by this iterator, otherwise false.
	<pre>def filter(p: (A) =&gt; Boolean): Iterator[A]</pre>
15	Returns an iterator over all the elements of this iterator that satisfy the predicate p. The order of the elements is preserved.
	<pre>def filterNot(p: (A) =&gt; Boolean): Iterator[A]</pre>
16	Creates an iterator over all the elements of this iterator which do not satisfy a predicate p.
	<pre>def find(p: (A) =&gt; Boolean): Option[A]</pre>
17	Finds the first value produced by the iterator satisfying a predicate, if any.
18	<pre>def flatMap[B](f: (A) =&gt; GenTraversableOnce[B]): Iterator[B]</pre>

	Creates a new iterator by applying a function to all values produced by this iterator and concatenating the results.
19	def forall(p: (A) => Boolean): Boolean  Returns true if the given predicate p holds for all values produced by this iterator, otherwise false.
20	<pre>def foreach(f: (A) =&gt; Unit): Unit Applies a function f to all values produced by this iterator.</pre>
21	def hasDefiniteSize: Boolean Returns true for empty Iterators, false otherwise.
22	def indexOf(elem: B): Int  Returns the index of the first occurrence of the specified object in this iterable object.
23	def indexWhere(p: (A) => Boolean): Int  Returns the index of the first produced value satisfying a predicate, or -1.
24	def isEmpty: Boolean Returns true if hasNext is false, false otherwise.
25	def isTraversableAgain: Boolean  Tests whether this Iterator can be repeatedly traversed.
26	def length: Int  Returns the number of elements in this iterator. The iterator is at its end after this method returns.
27	<pre>def map[B](f: (A) =&gt; B): Iterator[B] Returns a new iterator which transforms every value produced by this iterator by applying the function f to it.</pre>

def max: A  Finds the largest element. The iterator is at its a method returns.	end after this
def min: A	
Finds the minimum element. The iterator is at it this method returns.	ts end after
def mkString: String	
Displays all elements of this traversable or itera	ator in a string.
def mkString(sep: String): String	
Displays all elements of this traversable or iteration using a separator string.	ator in a string
def nonEmpty: Boolean	
Tests whether the traversable or iterator is not	empty.
def padTo(len: Int, elem: A): Iterator[A]	
Appends an element value to this iterator until a length is reached.	a given target
def patch(from: Int, patchElems: Iterator[B], res	eplaced: Int):
Returns this iterator with patched values.	
def product: A	
Multiplies up the elements of this collection.	
def sameElements(that: Iterator[_]): Boolean	
Returns true, if both iterators produce the same the same order, false otherwise.	e elements in
def seq: Iterator[A]	
Returns a sequential view of the collection.	

38	def size: Int  Returns the number of elements in this traversable or iterator.
	def slice(from: Int, until: Int): Iterator[A]
39	Creates an iterator returning an interval of the values produced by this iterator.
	def sum: A
40	Returns the sum of all elements of this traversable or iterator with respect to the + operator in num.
	def take(n: Int): Iterator[A]
41	Returns an iterator producing only of the first n values of this iterator, or else the whole iterator, if it produces fewer than n values.
	def toArray: Array[A]
42	Returns an array containing all elements of this traversable or iterator.
	def toBuffer: Buffer[B]
43	Returns a buffer containing all elements of this traversable or iterator.
	def toIterable: Iterable[A]
44	Returns an Iterable containing all elements of this traversable or iterator. This will not terminate for infinite iterators.
	def toIterator: Iterator[A]
45	Returns an Iterator containing all elements of this traversable or iterator. This will not terminate for infinite iterators.
46	def toList: List[A]
	Returns a list containing all elements of this traversable or iterator.

47	def toMap[T, U]: Map[T, U]
	Returns a map containing all elements of this traversable or iterator.
48	def toSeq: Seq[A]
	Returns a sequence containing all elements of this traversable or iterator.
49	def toString(): String
	Converts this iterator to a string.
50	<pre>def zip[B](that: Iterator[B]): Iterator[(A, B)</pre>
	Returns a new iterator containing pairs consisting of
	corresponding elements of this iterator. The number of elements returned by the new iterator is same as the
	minimum number of elements returned by the iterator (A or B).

# **Options methods**

Sr.No	Methods with Description
1	def get: A Returns the option's value.
2	def isEmpty: Boolean Returns true if the option is None, false otherwise.
3	def productArity: Int  The size of this product. For a product A(x_1,, x_k), returns k

	def productElement(n: Int): Any
4	The nth element of this product, 0-based. In other words, for a product $A(x_1,, x_k)$ , returns $x_{n+1}$ where $0 < n < k$ .
	def exists(p: (A) => Boolean): Boolean
5	Returns true if this option is nonempty and the predicate p returns true when applied to this Option's value. Otherwise, returns false.
	<pre>def filter(p: (A) =&gt; Boolean): Option[A]</pre>
6	Returns this Option if it is nonempty and applying the predicate p to this Option's value returns true. Otherwise, return None.
	<pre>def filterNot(p: (A) =&gt; Boolean): Option[A]</pre>
7	Returns this Option if it is nonempty and applying the predicate p to this Option's value returns false. Otherwise, return None.
	<pre>def flatMap[B](f: (A) =&gt; Option[B]): Option[B]</pre>
8	Returns the result of applying f to this Option's value if this Option is nonempty. Returns None if this Option is empty.
	def foreach[U](f: (A) => U): Unit
9	Apply the given procedure f to the option's value, if it is nonempty. Otherwise, do nothing.
	def getOrElse[B >: A](default: => B): B
10	Returns the option's value if the option is nonempty, otherwise return the result of evaluating default.
	def isDefined: Boolean
11	Returns true if the option is an instance of Some, false otherwise.
12	def iterator: Iterator[A]

	Returns a singleton iterator returning the Option's value if it is nonempty, or an empty iterator if the option is empty.
	def map[B](f: (A) => B): Option[B]
13	Returns a Some containing the result of applying f to this Option's value if this Option is nonempty. Otherwise return None.
14	<pre>def orElse[B &gt;: A](alternative: =&gt; Option[B]): Option[B]</pre>
	Returns this Option if it is nonempty, otherwise return the result of evaluating alternative.
15	def orNull
	Returns the option's value if it is nonempty, or null if it is empty.