

Package [DayOfYearGTU](#)

Class [DayOfYearSet](#)

[java.lang.Object](#)
[DayOfYearGTU.DayOfYearSet](#)

```
public class DayOfYearSet
extends Object
```

A class which represents a set of [DayOfYear](#) objects. It can dynamically shrink and grow. Every element is unique.

Nested Class Summary

Nested Classes

Modifier and Type	Class	Description
static class	DayOfYearSet.DayOfYear	A class which holds date information as integers(day_f , month_f).

Constructor Summary

Constructors

Constructor	Description
DayOfYearSet()	No parameter constructor.
DayOfYearSet(DayOfYearSet other)	Copy Constructor that takes DayOfYearSet object.
DayOfYearSet(ArrayList <DayOfYearSet.DayOfYear> days)	Constructor takes ArrayList of DayOfYear objects.

Method Summary

All Methods	Static Methods	Instance Methods	Concrete Methods
Modifier and Type	Method		Description
void	add (int day, int month)		Method takes day and month information, checks validity and adds to array.
void	add (DayOfYearSet.DayOfYear date)		Method takes DayOfYear object, and adds it to the array.
DayOfYearSet	complement()		A method which returns

DayOfYearSet	complement()	A method which returns complement of the set.
DayOfYearSet	difference (DayOfYearSet other)	A method which returns difference of two sets.
boolean	equals(Object other)	Overriden equals method.
DayOfYearSet.DayOfYear[]	getDays()	Simple getter which returns DayOfYear array.
		
static int	getTotalDOYObjects()	Static method of DayOfYearSet class which returns total number of DayOfYearObject alive.
DayOfYearSet	intersection (DayOfYearSet other)	A method which returns intersection of two sets.
void	remove()	Method pops the last date.
void	remove(int day, int month)	Method removes the given date.
void	remove (DayOfYearSet.DayOfYear date)	Method removes the given date.
		
int	size()	Method returns the total number of dates.
String	toString()	Overriden toString method.
DayOfYearSet	union(DayOfYearSet other)	A method which returns union set of two sets.

Methods inherited from class java.lang.Object

clone , finalize , getClass , hashCode , notify , notifyAll , wait , wait , wait

Constructor Details

DayOfYearSet

```
public DayOfYearSet()
```

No parameter constructor.

DayOfYearSet

```
public DayOfYearSet(ArrayList <DayOfYearSet.DayOfYear> days)
```

Constructor takes ArrayList of DayOfYear objects.

Parameters:

days - includes DayOfYear Objects, and its size shouldn't exceed 365.

DayOfYearSet

```
public DayOfYearSet(DayOfYearSet other)
```

Copy Constructor that takes DayOfYearSet object.

Parameters:

other - instance of the same class.

Method Details

toString

```
public String toString()
```

Overriden toString method. Returns the string which has the DayOfYearSet details, which are number of elements in the set, and each date(Ex: 1 February).

Overrides:

toString in class Object

Returns:

returns string as formatted properly(Ex: "1 February").

equals

```
public boolean equals(Object other)
```

Overriden equals method. Sets doesn't have to be ordered same, but their elements must be equal.

Overrides:

equals in class Object

Parameters:

other - must be DayOfYearSet class object.

Returns:

returns true if sets are equal, otherwise false.

add

```
public void add(DayOfYearSet.DayOfYear date)
```

Method takes DayOfYear object, and adds it to the array. If capacity is full it dynamically increases its size. It handles the duplication, there is no duplication every element is unique.

Parameters:

date - DayOfYear class which holds day and month information.

add

```
public void add(int day,  
               int month)
```

Method takes day and month information, checks validity and adds to array. If capacity is full it dynamically increases its size. It handles the duplication, there is no duplication every element is unique.

Parameters:

day - day information, february is assumed 28 day.

month - month information.

remove

```
public void remove()
```

Method pops the last date.

remove

```
public void remove(DayOfYearSet.DayOfYear date)
```

Method removes the given date.

Parameters:

date - DayOfYear class parameter.

remove

```
public void remove(int day,  
                   int month)
```

Method removes the given date.

Parameters:

day - an integer day information.

month - an integer month information.

size

```
public int size()
```

Method returns the total number of dates.

Returns:

returns an integer.

getDays

```
public DayOfYearSet.DayOfYear[] getDays()
```

Simple getter which returns DayOfYear array.

Returns:

DayOfYear array will be returned.

getTotalDOYObjects

```
public static int getTotalDOYObjects()
```

Static method of DayOfYearSet class which returns total number of DayOfYearObject alive.

Returns:

returns an integer.

union

```
public DayOfYearSet union(DayOfYearSet other)
```

A method which returns union set of two sets. Example `set1.union(set2)` it returns `set1+set2`(in terms of set arithmetic).

Parameters:

`other` - same instance must be argument.

Returns:

returns the union set(DayOfYearSet).

difference

```
public DayOfYearSet difference(DayOfYearSet other)
```

A method which returns difference of two sets. Example `set1.difference(set2)` it returns `set1-set2`(in terms of set arithmetic).

Parameters:

`other` - same instance must be argument.

Returns:

returns the difference set(DayOfYearSet).

intersection

```
public DayOfYearSet intersection(DayOfYearSet other)
```

A method which returns intersection of two sets. Example `set1.intersection(set2)` it returns `set1^set2`(in terms of set arithmetic).

Parameters:

`other` - same instance must be argument.

Returns:

returns the intersection set(`DayOfYearSet`).

complement

```
public DayOfYearSet complement()
```

A method which returns complement of the set. Example `set1.complement()` it returns `!set1`(in terms of set arithmetic).

Returns:

returns the complement set(`DayOfYearSet`).