JavaScript is disabled on your browser.

* [Package](http://docs.google.com/com/learningtree/crs471/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/Duration.html)
* [Tree](http://docs.google.com/package-tree.html)
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* [Index](http://docs.google.com/index-all.html)
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com.learningtree.crs471

## Class Duration

* java.lang.Object
  + com.learningtree.crs471.Duration
* public class Duration  
  extends Object  
  This class describes a duration of time. It contains the hour, minutes and seconds.  
   Usage Example:  
    
   Duration lunchDuration = new Duration(1, 0, 0); // 1 hr, 0 mins, 0 secs  
   System.out.println(lunchDuration);  
    
   Duration breakDuration = new Duration(0, 15, 30); // 0 hrs, 15 mins, 30 secs  
   System.out.println(breakDuration);  
    
   Duration labDuration = new Duration(2700); // 2700 seconds = 45 minutes  
   System.out.println(labDuration);  
    
   Author: 471 Development Team

### Field SummaryFields

|  |  |
| --- | --- |
| * + Modifier and Type | * + Field and Description |
| * + private int | * + [**hours**](http://docs.google.com/com/learningtree/crs471/Duration.html#hours) The number of hours |
| * + private int | * + [**minutes**](http://docs.google.com/com/learningtree/crs471/Duration.html#minutes) The number of minutes |
| * + private int | * + [**seconds**](http://docs.google.com/com/learningtree/crs471/Duration.html#seconds) The number of seconds |

### Constructor SummaryConstructors

|  |
| --- |
| * + Constructor and Description |
| * + [**Duration**](http://docs.google.com/com/learningtree/crs471/Duration.html#Duration())() Creates a Duration object with 0 hours, minutes and seconds. |
| * + [**Duration**](http://docs.google.com/com/learningtree/crs471/Duration.html#Duration(int))(int totalSeconds) Creates a Duration object with given parameter values |
| * + [**Duration**](http://docs.google.com/com/learningtree/crs471/Duration.html#Duration(int,%20int,%20int))(int theHours, int theMinutes, int theSeconds) Creates a Duration object with given parameter values |

### Method SummaryMethods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + [Duration](http://docs.google.com/com/learningtree/crs471/Duration.html) | * + [**add**](http://docs.google.com/com/learningtree/crs471/Duration.html#add(com.learningtree.crs471.Duration))([Duration](http://docs.google.com/com/learningtree/crs471/Duration.html) someTime) Returns a **new** duration object that is the sum of the supplied Duration object and current object |
| * + int | * + [**getHours**](http://docs.google.com/com/learningtree/crs471/Duration.html#getHours())() Returns the hours portion of the duration |
| * + int | * + [**getMinutes**](http://docs.google.com/com/learningtree/crs471/Duration.html#getMinutes())() Returns the minutes portion of the duration |
| * + int | * + [**getSeconds**](http://docs.google.com/com/learningtree/crs471/Duration.html#getSeconds())() Returns the seconds portion of the duration. |
| * + int | * + [**getTotalSeconds**](http://docs.google.com/com/learningtree/crs471/Duration.html#getTotalSeconds())() Returns the total seconds |
| * + [Duration](http://docs.google.com/com/learningtree/crs471/Duration.html) | * + [**subtract**](http://docs.google.com/com/learningtree/crs471/Duration.html#subtract(com.learningtree.crs471.Duration))([Duration](http://docs.google.com/com/learningtree/crs471/Duration.html) someTime) Returns a **new** duration object that is the difference of the supplied Duration and current object. |
| * + String | * + [**toString**](http://docs.google.com/com/learningtree/crs471/Duration.html#toString())() Returns a string representation of the Duration object: |

### Methods inherited from class java.lang.Objectclone, equals, finalize, getClass, hashCode, notify, notifyAll, wait, wait, wait

### Field Detail

#### hours private int hours The number of hours

#### minutes private int minutes The number of minutes

#### seconds private int seconds The number of seconds

### Constructor Detail

#### Duration public Duration() Creates a Duration object with 0 hours, minutes and seconds.

#### Duration public Duration(int theHours, int theMinutes, int theSeconds) Creates a Duration object with given parameter values

#### Duration public Duration(int totalSeconds) Creates a Duration object with given parameter values

### Method Detail

#### getHours public int getHours() Returns the hours portion of the duration

#### getMinutes public int getMinutes() Returns the minutes portion of the duration

#### getSeconds public int getSeconds() Returns the seconds portion of the duration. Note: This is **NOT** the total seconds.See Also:[getTotalSeconds().](http://docs.google.com/com/learningtree/crs471/Duration.html#getTotalSeconds())

#### getTotalSeconds public int getTotalSeconds() Returns the total seconds

#### add public [Duration](http://docs.google.com/com/learningtree/crs471/Duration.html) add([Duration](http://docs.google.com/com/learningtree/crs471/Duration.html) someTime) Returns a **new** duration object that is the sum of the supplied Duration object and current object

#### subtract public [Duration](http://docs.google.com/com/learningtree/crs471/Duration.html) subtract([Duration](http://docs.google.com/com/learningtree/crs471/Duration.html) someTime) Returns a **new** duration object that is the difference of the supplied Duration and current object. The difference returned is the absolute difference, so the duration will always be positive.

* + - toString  
      public String toString()  
      Returns a string representation of the Duration object:  
        
       Format  
       hh:mm:ss  
        
       **Overrides:** toString in class Object

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