

# Class TrainCar

java.lang.Object  
TrainCar

```
public class TrainCar
extends java.lang.Object
```

## Constructor Summary

### Constructors

#### Constructor and Description

**TrainCar**(double maxW)  
Constructor

## Method Summary

### All Methods

### Instance Methods

### Concrete Methods

Modifier and Type	Method and Description
boolean	<b>canLoad</b> (Item item) determine if item can be loaded in car
Item[]	<b>getContents</b> () Return an array of Item references of what is loaded in this car
double	<b>getMaxWeight</b> () Getter - return maximum weight of cargo in this TrainCar
int	<b>getQuantity</b> (Item item) Determine how many of a particular Item is in this TrainCar
double	<b>getWeight</b> () Getter - return current weight of cargo in this TrainCar
int	<b>load</b> (Item item) load an item into the TrainCar
java.lang.String	<b>toString</b> ()

## Methods inherited from class java.lang.Object

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

## Constructor Detail

### TrainCar

```
public TrainCar(double maxW)
```

Constructor

#### Parameters:

`maxW` - - maximum cargo weight (KG) of this TrainCar. if `maxW`  $\leq 0$ , then max cargo weight is 0 KG

## Method Detail

### toString

```
public java.lang.String toString()
```

#### Overrides:

`toString` in class `java.lang.Object`

### getWeight

```
public double getWeight()
```

Getter - return current weight of cargo in this TrainCar

#### Returns:

current weight of cargo in this TrainCar (in KG)

### getMaxWeight

```
public double getMaxWeight()
```

Getter - return maximum weight of cargo in this TrainCar

**Returns:**

Maximum weight of cargo in this TrainCar (in KG)

### getContents

```
public Item[] getContents()
```

Return an array of Item references of what is loaded in this car

**Returns:**

Array of Items currently loaded in this car. length of array indicates the number of items loaded. This may be a reference or a deep copy.

### canLoad

```
public boolean canLoad(Item item)
```

determine if item can be loaded in car

**Parameters:**

item - object to be tested for loading

**Returns:**

true if item would not put this TrainCar over its maximum weight.  
false otherwise. Return false if item is null. Return false if item weight <= 0.

### load

```
public int load(Item item)
```

load an item into the TrainCar

**Parameters:**

item - any object that implements Item

**Returns:**

0/1. return 0 if item not loaded, 1 if loaded. returns 0 if item is null. returns 0 if canLoad would return false.

## getQuantity

```
public int getQuantity(Item item)
```

Determine how many of a particular Item is in this TrainCar

**Parameters:**

item - Reference to any object that implements Item

**Returns:**

number of items in the TrainCar. null item should return 0