

# Class Coordinate

java.lang.Object  
Coordinate

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

The Coordinate class is used to identify the rows and columns of the game.

**Version:**  
1.0

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## Field Summary

Fields	
Modifier and Type	Field and Description
private int	<b>column</b> The Column value of the coordinate
private int	<b>row</b> The Row value of the coordinate

## Constructor Summary

Constructors	
Constructor and Description	
<b>Coordinate</b> (int column, int row)	Constructor that takes in the int values of the rows and columns of the coordinates The constructor checks if the values of column and row are within bounds, if the values are not within bounds, exception displayed when the row and column values not within the specific constraints
<b>Coordinate</b> (java.lang.String coordinate)	Constructor that takes in the row and column values in a STRING FORMAT of the coordinate.

## Method Summary

**All Methods**    **Instance Methods**    **Concrete Methods**

Modifier and Type	Method and Description
int	<b><code>getColumnNumber()</code></b> Getter method to retrieve the row number of the coordinate
int	<b><code>getRowNumber()</code></b> Getter method to retrieve the column number of the coordinate
java.lang.String	<b><code>toString()</code></b> Method used to displayed the coordinate row and column information in STRING format

### Methods inherited from class java.lang.Object

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

## Field Detail

### column

```
private int column
```

The Column value of the coordinate

### row

```
private int row
```

The Row value of the coordinate

## Constructor Detail

### Coordinate

```
public Coordinate(int column,
                  int row)
    throws java.lang.IndexOutOfBoundsException
```

Constructor that takes in the int values of the rows and columns of the coordinates The constructor checks if the values of column and row are within bounds, if the values are not within bounds, exception displayed when the row and column values not within the specific constraints

**Parameters:**

column, - user specified column number for the coordinate

row, - user specified row number for the coordinate

**Throws:**

java.lang.IndexOutOfBoundsException - when the row and column values not within the specific board constraints

### Coordinate

```
public Coordinate(java.lang.String coordinate)
    throws java.lang.IllegalArgumentException
```

Constructor that takes in the row and column values in a STRING FORMAT of the coordinate. The constructor checks if the values of column and row in String are within bounds. It also checks if it is a valid entry for the rows and column. Exception displayed when invalid entry i.e. not the right String format or correct input format Exception displayed when the row and column values not within the specific constraints

**Parameters:**

coordinate, - The String form of the row and column

**Throws:**

java.lang.IllegalArgumentException - when the row and column values not in correct String format

java.lang.IndexOutOfBoundsException - when the row and column values not within the specific constraints

## Method Detail

### getColumnNumber

```
public int getColumnNumber()
```

Getter method to retrieve the row number of the coordinate

**Returns:**

Row, The row number of the coordinate

### getRowNumber

```
public int getRowNumber()
```

Getter method to retrieve the column number of the coordinate

**Returns:**

Column, The column number of the coordinate

## toString

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

Method used to displayed the coordinate row and column information in STRING format

### Overrides:

toString in class java.lang.Object

### Returns:

String, a String which contains the row and column information of the coordinates.

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