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DETAIL: FIELD | CONSTR | METHOD

code

Class Ball

java.lang.Object
code.Ball

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

Class for ball

Field Summary

Fields

Modifier and Type	Field and Description
(package private) java.awt.Rectangle	boundingBox Invisible box surrounding the ball to detect collisions with the paddle
private int	intersectionHits Used in paddleCollide method to count collision occurences
int	size
int	speed
int	velocityX
int	velocityY
int	x
int	y

Constructor Summary

Constructors

Constructor and Description
Ball (int x, int y)

Method Summary

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

Modifier and Type	Method and Description
private void	paddleCollide (Tennis game) Detects if a collision occurs between the ball and the player paddle.
void	render (java.awt.Graphics g) Used strictly to display the player paddle graphic.
void	tick (Tennis game) Change the x direction of the ball if it hits a paddle or the side walls.

Methods inherited from class java.lang.Object

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

Field Detail

x

public int x

y

public int y

size

public int size

speed

public int speed

velocityX

public int velocityX

velocityY

```
public int velocityY
```

intersectionHits

```
private int intersectionHits
```

Used in paddleCollide method to count collision occurrences

boundingBox

```
java.awt.Rectangle boundingBox
```

Invisible box surrounding the ball to detect collisions with the paddle

Constructor Detail**Ball**

```
public Ball(int x,  
            int y)
```

Method Detail**tick**

```
public void tick(Tennis game)
```

Change the x direction of the ball if it hits a paddle or the side walls. Change the y direction of the ball if it hits the floor or ceiling

Parameters:

game – Main driver Tennis instance

paddleCollide

```
private void paddleCollide(Tennis game)
```

Detects if a collision occurs between the ball and the player paddle. Each collision increases intersectionHits by three due to rendering of collision happening multiple times. Therefore, if intersectionHits modulo 3 == 0, a single collision occurred and player score is increased by one

Parameters:

game - Main driver Tennis instance

render

```
public void render(java.awt.Graphics g)
```

Used strictly to display the player paddle graphic.

Parameters:

graphics - Main driver graphics instance

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