

UNDB

CENTRO UNIVERSITÁRIO AVALIAÇÃO 2

Grid.java

```
package snakegame. logic;
```

```
import javafx.scene.paint.Color;
```

```
import java.util. Random;
```

```
public class Grid {
```

```
public static final int SIZE = 10;
```

```
public static final Color COLOR = new Color (0.1, 0.1, 0.1, 1);
```

```
private final int cols; // The number of columns
```

```
private final int rows; // The number of rows
```

```
private Snake snake;
```

```
private Food food;
```

```
public Grid (final double width, final double height) {
```

```
rows = (int) width/ SIZE;
```

```
cols = (int) height/ SIZE;
```

```
// initialize the snake at the centre screen
```

```
snake = new Snake (this, new Point (rows/ 2, cols/ 2));
```

```
// put the food at a random location
```

```
food = new Food (getRandomPoint ());
```

```
}
```

```
public point wrap (Point point) {
```

```
int x = point.getX ();
```

```
int y = point.getY ();
```

```
if (x> = rows) X = 0;
```

```
if (y> = cols) y = 0;
```

```
if (x< 0) x = rows-1;
```

```
if (y< 0) y = cols-1;
```

```
return new Point (x, y);
```

```
}
```

```
private Point getRandomPoint () {
```

```
Random random = new Random ();
```

```
Point
```

```
point;
```

```
do {
```

```
point = new Point (random.nextInt (rows), random.nextInt  
(cols));
```

```
} while (point.equals (snake.getHead ()));
```

```
return point;
```

```
}
```

```
public void update () {
```

```
if (food.getPoint (). equals (snake.getHead ())) {
```

```
snake.extend ();
```

```
food.setPoint (getRandomPoint ());  
} else {  
snake.move ();  
}  
Y  
public int getCols () {  
return cols;  
}
```

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