Drawing a line on canvas in Java ME

This code snippet demonstrates how to draw lines in a Java ME MIDlet.

Overview

The `Canvas` class is used for drawing lines and other simple graphics. Since `Canvas` is an abstract class, in order to draw lines, you must implement your own class based on `Canvas` and implement the `paint` method which is used for drawing on the canvas. After that, this class may be used as `displayable` - it can be assigned as the current displayable and it can contain commands.

This MIDlet consists of 2 source files:

1. DrawingLineMidlet.java - contains the MIDlet class.
2. DrawingLineCanvas.java - contains the DrawingLineCanvas class, with implemented method `paint` which is used to draw a line.

Source file: DrawingLineMidlet.java

```
    // Canvas for drawing line
    private DrawingLineCanvas canvas;

    public DrawingLineMidlet() {
        setupCanvas();
    }

    /**
     * Sets up canvas for drawing line.
     */
    private void setupCanvas() {
        canvas = new DrawingLineCanvas();
        canvas.setTitle("Drawing the line");

        canvas.addCommand(EXIT_COMMAND);
        canvas.setCommandListener(this);
    }

    /**
     * From MIDlet.
     * Called when the MIDlet is started.
     */
    public void startApp() {
        // The initial display is the main form
        Display.getDisplay(this).setCurrent(canvas);
    }
```

Source file: DrawingLineCanvas.java

```
import javax.microedition.lcdui.Canvas;
import javax.microedition.lcdui.Graphics;

/**
 * Canvas for drawing line.
 */
public class DrawingLineCanvas extends Canvas {
```


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```
    // Draw a diagonal black line
    protected void paint(Graphics g) {
        g.drawLine(10, 10, getWidth() - 10, getHeight() - 10);
    }
}
```

Postconditions

A canvas with a diagonal black line on a white background is drawn on the display.

Supplementary material

This code snippet is part of the stub concept, which means that it has been patched on top of a template application in order to be more useful for developers. The version of the Java ME stub application used as a template in this snippet is v1.1.

- The patched, executable application that can be used to test the features described in this snippet is available for download at Media:DrawingLine.zip.
- You can view all the changes that are required to implement the above-mentioned features. The changes are provided in unified diff and colour-coded diff (HTML) formats in Media:DrawingLine.diff.zip.
- For general information on applying the patch, see Using Diffs.
- For unpatched stub applications, see Example app stubs with logging framework.

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