Beginning

Core Graphics

Core Graphics
Hands-On Challenges

Challenge: Fix Off-pixel Line

You'll now fix up the blurry line on the budget view.
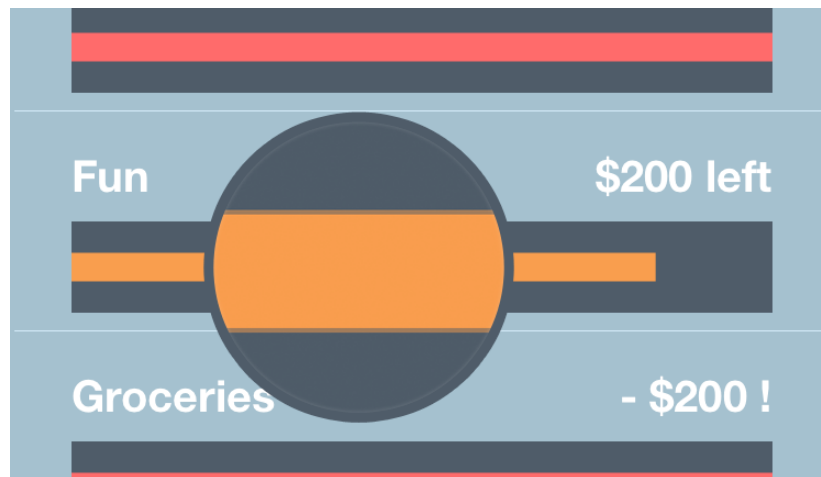
The line appears to be blurred because at the edge, only half the pixel is being filled. When this happens, the device will do anti-aliasing, and fill the pixel with a different shade.

In **BudgetView.swift** in `drawRect(_:)`, round the height and add 0.5 points to the Y position. Change:

```
path.moveToPoint(CGPoint(x: 0, y: rect.height/2))
```

to:

```
path.moveToPoint(CGPoint(x: 0, y: round(rect.height/2)+0.5))
```
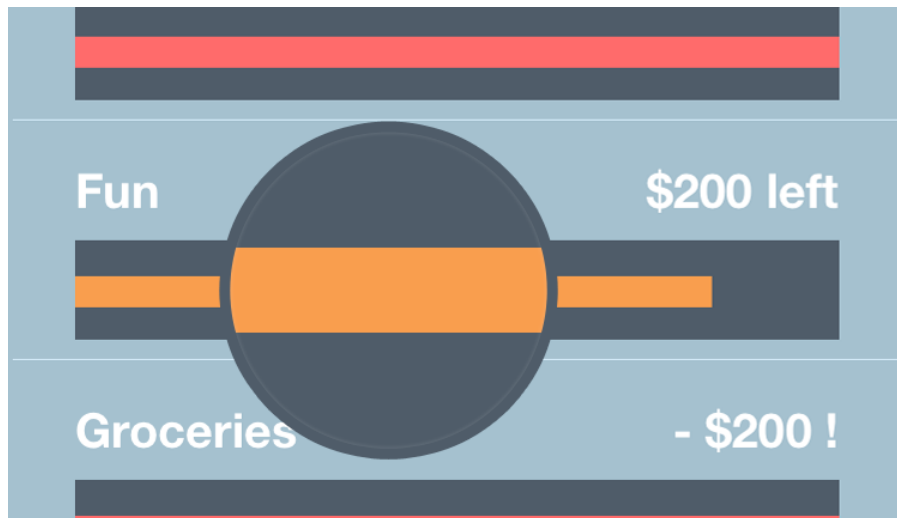
and

```
path.addLineToPoint(CGPoint(x: end, y: rect.height/2))
```

to:

```
path.addLineToPoint(CGPoint(x: end, y: round(rect.height/2)+0.5))
```

Test on all devices at a 100% scale. The line should be crisp and sharp on all of them.

To make the bar rounded, change the line cap style of the path before stroking the path:

```
path.lineCapStyle = .Round
```

Run the app and see your finished bars.