

Table Views in iOS

Hands-On Challenges

Table Views: Beginning to Advanced Hands-On Challenges

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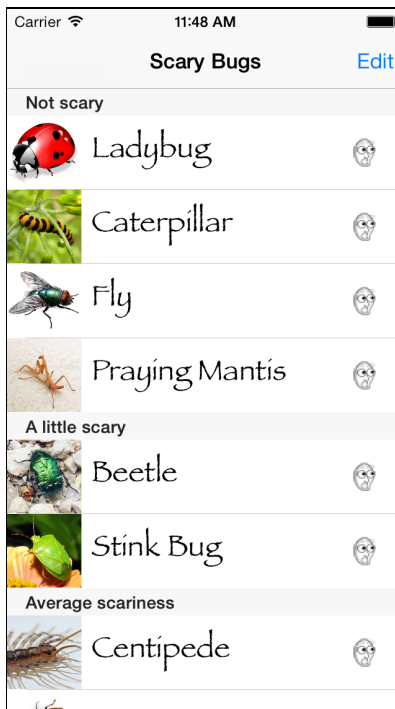
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Challenge #6: Custom Rows

Your Scary Bug app is coming along well so far, but currently it looks like many other apps out there. It would be nice to have a custom look for your cells!

In this challenge, you will customize the scary bug cells so they look like this:



See if you can do this on your own based on what you learned on the video. If you get stuck, follow along with the full walkthrough below!

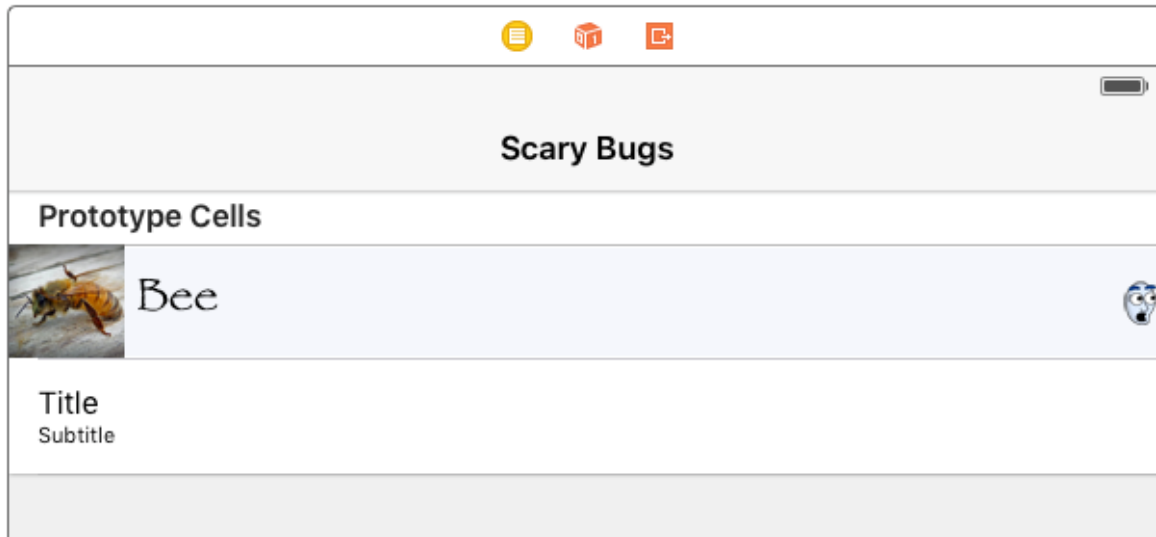
Full Walkthrough

Open the Scary Bugs project where you left it off in the last challenge, or use the starter project provided by the instructor.

Open **Main.storyboard**, select your table view, and set the **Prototype Cells** to 2. Select the second cell, and set the **Identifier** to **NewRowCell**.

Next select the first cell and set the **Row Height** to **60**, and the **Style** to **Custom**. Make sure that the second cell style is set to **Subtitle**. Then layout the cell so it looks something like this:





The Bee imageview is **60 x 60**. The label used the **Papyrus** font set to a size of **24** points. The “shocked face” imageview is **23 x 23**. The “shocked face” is **shockedface2_full.png**, which is already included in your project.

Make sure to add the controls to a stack view and constrain the elements to the cell.

Tip: you will need a width and height constraint on both the Bee imageview and the shocked face imageview.

Note: Stuck with the Auto Layout constraints? Check out our Auto Layout video tutorial, or the solution for this challenge.

Next, you need to create a class for your new table view cell so you can easily associate the subviews to outlets. To do this, create a new file with the **iOS\Source\Cocoa Touch Class** template, name it **ScaryBugCell**, and make it a subclass of **UITableViewCell**. Set the language as **Swift**.

Then open **ScaryBugCell.swift** and replace the contents with the following:

```
import UIKit

class ScaryBugTableViewCell: UITableViewCell {

    @IBOutlet weak var bugImageView: UIImageView!
    @IBOutlet weak var bugNameLabel: UILabel!
    @IBOutlet weak var howScaryImageView: UIImageView!

    override func awakeFromNib() {
```



```

        super.awakeFromNib()
    }

    override func setSelected(selected: Bool, animated: Bool) {
        super.setSelected(selected, animated: animated)
    }
}

```

Here you have declared properties for the three subviews of your cell. You could have created these by dragging from the subviews in the Storyboard editor to this class in the assistant editor, but I wanted to show you that doing it manually like this is also a valid option.

Back in **Main.storyboard**, select your new cell and open the 3rd tab (the Identity Inspector). Set the class of your cell to your new **ScaryBugCell** class.

With the new cell still selected, switch to the 6th tab (the Connections inspector). You will see the new **bugImageView**, **bugNameLabel**, and **howScaryImageView** outlets listed here. Drag from the circles to the right of each outlet to their associated subview in the Storyboard editor to connect them.

Open **BugTableViewController.swift**. You need to modify `cellForRowAtIndexPath(_:)` to use your new cell. Replace the method with the following:

```

override func tableView(tableView: UITableView,
    cellForRowAtIndexPath indexPath: NSIndexPath)
    -> UITableViewCell {

    let cell: UITableViewCell
    let bugSection = bugSections[indexPath.section]

    if indexPath.row >= bugSection.bugs.count && editing {
        cell = tableView.dequeueReusableCellWithIdentifier
            ("NewRowCell", forIndexPath: indexPath)
        cell.textLabel?.text = "Add Bug"
        cell.detailTextLabel?.text = nil
        cell.imageView?.image = nil
    } else {
        let bug = bugSection.bugs[indexPath.row]
        cell = tableView.dequeueReusableCellWithIdentifier("BugCell",
            forIndexPath: indexPath)
        if let bugCell = cell as? ScaryBugTableViewCell {

            bugCell.bugNameLabel.text = bug.name
            if bug.howScary.rawValue > ScaryFactor.AverageScary.rawValue {

```



```

        bugCell.howScaryImageView.image = UIImage(named:
            "shockedface2_full")
    } else {
        bugCell.howScaryImageView.image = UIImage(named:
            "shockedface2_empty")
    }

    if let bugImage = bug.image {
        bugCell.bugImageView.image = bugImage
    } else {
        bugCell.bugImageView.image = nil
    }
}
}

return cell
}

```

Note how you dequeue two different types of cells here, based on whether it is a row for the scary bug, or for the special “Add Bug” row. You can use this same technique to add as many different types of prototype cells as you would like.

Finally, at the bottom of `viewDidLoad()`, add the following:

```

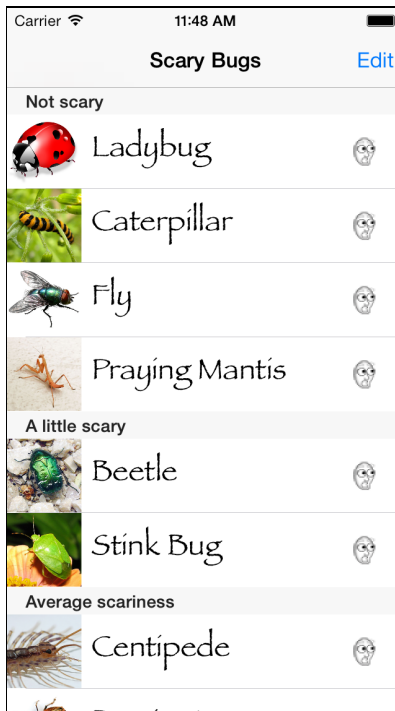
tableView.estimatedRowHeight = 60.0
tableView.rowHeight = UITableViewAutomaticDimension

```

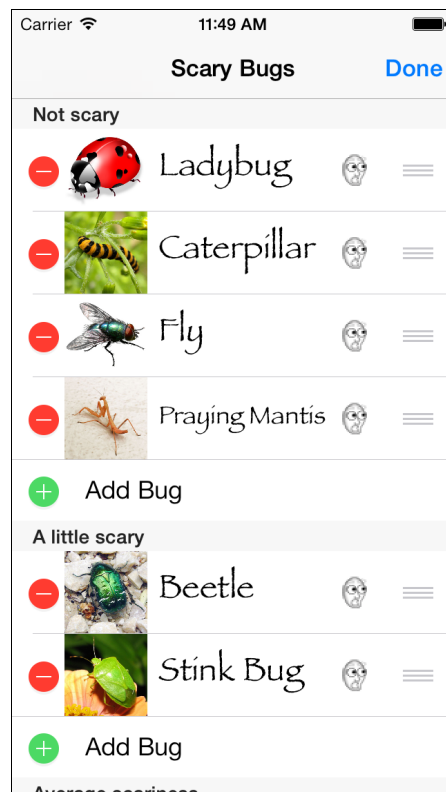
This is required when you have dynamic cells with different heights, so the table view knows the proper height to use for each cell.

Build and run, and enjoy your new look:





If you got the Auto Layout constraints working, it should look like this in edit mode:



Congratulations, your bugs are now strutting in style!

