

Lecture 5

Beginning iOS

Ok, I blew my Git
discussion...let's fix that

UITableViewController

- `cellForRow...` - Attempt to dequeue a cell. Create a cell if one wasn't found.
- `numberOfRows...` - Tell it how many cells you have.
- `didSelectRow...` - Fired when an individual cell is clicked.

Build a
UITableViewController
Again

Building our own UITableViewController

- UITableViewController is not flexible
- The process of building it will teach us a lot!
- Start with a regular UIViewController, add a table view, connect up the table view's dataSource & delegate

Protocols

- Similar to “implements” in Java; we call it “conforming”.
- Conforming to a protocol is like signing a contract saying you’ll have these methods within your object’s definition.
- Some methods are required, some are optional.
- The compiler will warn you if you don’t implement the required methods.

UITableView's Protocols

- UITableView has two related protocols:
- UITableViewDataSource - by conforming to this protocol, you agree to provide methods to give the table view data.
numberOfRows... cellForRow...
- The table view's data source is set through a property called `dataSource`.
- UITableViewDelegate - by conforming to this protocol, you agree to provide methods to configure the table.
didSelectRow... heightForRow... viewForHeader...
- The table view's delegate is set through a property called `delegate`.

Rebuild
UITableViewController

Delegates

- This is the class you'll go to, to ask questions or to get answers.
- UIApplicationDelegate - Our AppDelegate class conformed to this, so it was asked questions (via functions)
- “Task-runner” model - Keep coming back to the delegate for information.
- I delegAte a task to you (“Tableview, go!”), and you ask your delegit any questions necessary (“Hey boss, how many rows do I have?”)

Delegates

- dataSource & delegate properties are weak, not strong...why?
- *Let's see what would happen if it were strong.*
- ViewController holds a strong pointer to the table view.
- Table View holds a strong pointer to the ViewController (through the dataSource, for example)
- Deallocation can't occur. View Controller can't dealloc its table view property.
- *Make all protocol-conforming properties weak to prevent the retain cycle.*

NSDictionary

- Similar to Hash-Maps in Java.
- Unordered collection of data.
- Each value is associated with a key.
- JSON (JavaScript Object Notation) looks nearly identical, so dictionaries will be heavily used when we try our hands at networking.