RecyclerView

Fonctionnement

Conteneur scrollable pour afficher une grande quantité de donnée de façon efficace:

- crée un nombre limité de Views
- les réutilise en remplaçant les données et les listeners (re-bind) sans les recréer
- Met à jour les données rapidement

List layout

```
<android.support.v7.widget.RecyclerView
    android:id="@+id/recyclerview"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    app:layoutManager="android.support.v7.widget.LinearLayoutManager" />
```

Item layout

```
<LinearLayout
   android:layout_width="match_parent"
   android:layout_height="match_parent">
   <TextView
       android:id="@+id/word"
       android:layout_width="wrap_content"
       android:layout_height="wrap_content" />
</LinearLayout>
```

Adapter

```
class WordListAdapter(val wordList: Word) : RecyclerView.Adapter<WordListAdapter.WordViewHolder>() {
   override fun getItemCount(): Int {
      // return the number of elements in the list
   }

   override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): WordViewHolder {
      // inflate a view to create a ViewHolder instance
   }

   override fun onBindViewHolder(holder: WordViewHolder, position: Int) {
      // bind() the list element at the current position to the holder
   }

   inner class WordViewHolder(itemView: View) : RecyclerView.ViewHolder(itemView) {
      fun bind(word: Word) {
         // Fill a cell with data
      }
   }
}

// at fragment or activity creation:
val wordList = listOf("word#1", "word #2")
recyclerView.adapter = WordListAdapter(wordList)
recyclerView.layoutManager = LinearLayoutManager(context)
```

ListAdapter

```
object WordsDiffCallback : DiffUtil.ItemCallback<Word>() {
   override fun areItemsTheSame(oldItem: Word, newItem: Word) =
      // are they the same "entity" ? (usually same id)
   override fun areContentsTheSame(oldItem: Word, newItem: Word) =
      // do they have the same data ? (content)
}

class WordListAdapter : ListAdapter<,Word, WordListAdapter.WordViewHolder>(WordsDiffCallback) {
   // same thing without getItemCount()
}

// at fragment or activity creation:
val myAdapter = WordListAdapter()
recyclerView.adapter = myAdapter
myAdapter.submitList(listOf("word#1", "word #2"))
```

iOS

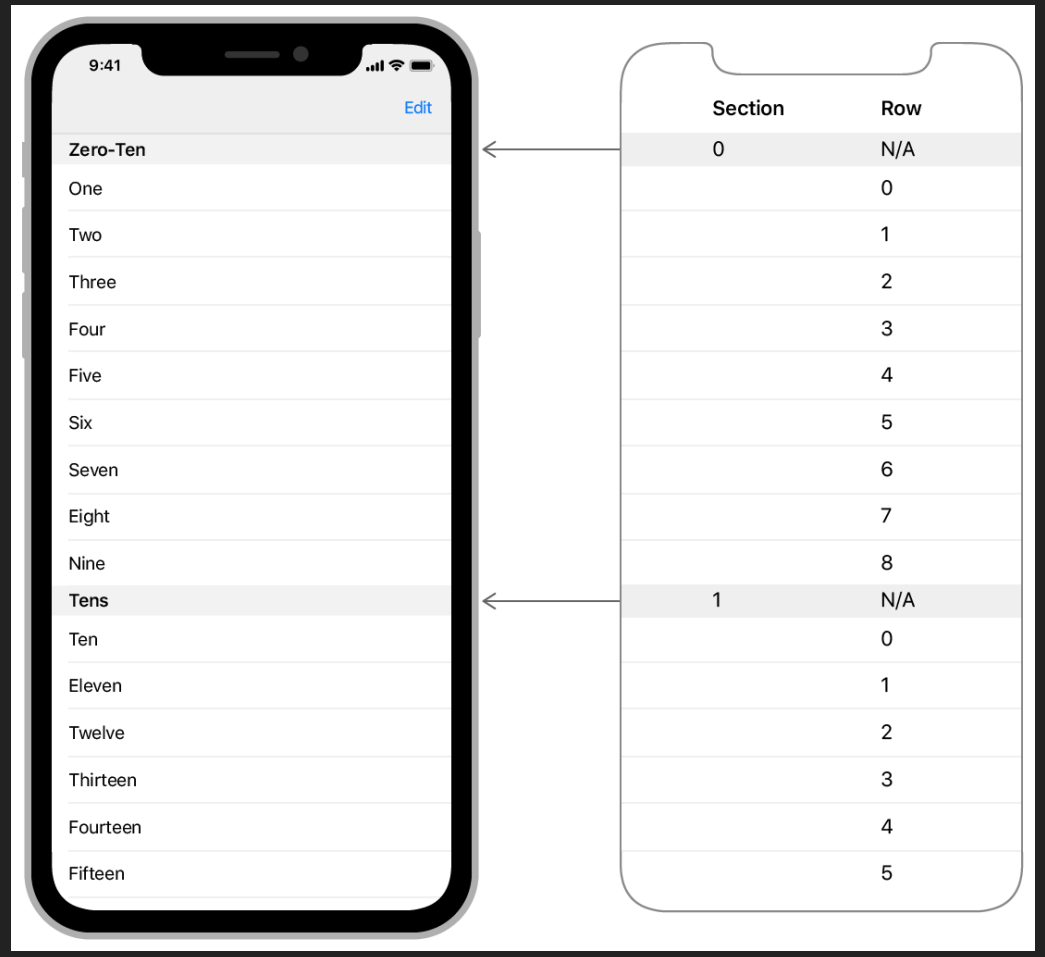
In storyboard:

- UITableViewController
- UITableViewCell prototype

In code:

- UITableViewDataSource protocol implementation

See Documentation



Example

```
var hierarchicalData = [[String]]()

class MyTableDataSource : UITableViewDataSource {

   override func numberOfSections(in tableView: UITableView) -> Int {
      return hierarchicalData.count
   }

   override func tableView(_ tableView: UITableView, numberOfRowsInSection section: Int) -> Int {
      return hierarchicalData[section].count
   }

   override func tableView(_ tableView: UITableView,
                           cellForRowAt indexPath: IndexPath) -> UITableViewCell {
      // Ask for a cell of the appropriate type.
      let cell = tableView.dequeueReusableCell(withIdentifier: "basicStyleCell", for: indexPath)

      // Configure the cell's contents with the row and section number.
      // The Basic cell style guarantees a label view is present in textLabel.
      cell.textLabel!.text = "Row \(indexPath.row)"
      return cell
   }
}
```