# UIKIT

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# INTRODUCTION 01

# UIKIT

- SDK provided by Apple
- Collection of classes for manipulating UI
- Used in iOS since the beginning
- Heavily based on inheritance from UIView

# SWIFTUI

02

# SWIFTUI

- SDK provided by Apple
- New approach to writing UI
- More on that later in the academy

# UIKIT ESSENTIALS

# 03

# UIVIEW

Base class for all the UI elements on screen.

- Empty canvas
- Implements all important lifecycle methods

# UIVIEWCONTROLLER

Base class (container) for controlling one screen or part of the screen.

- Has one UIView property called “view”
- Implements all important lifecycle methods
- Contains logic to layout elements on the screen and fill it with data

# UILABEL

Displays text on screen.

- Inherits from UIView
- Displays provided text
- Can be configured with different fonts, colors, line breaking and text cropping behaviour

# UIBUTTON

Most important interactive element.

- Inherits from UIView
- Reacts to taps
- Has different states (normal/highlighted/…)

# UITABLEVIEW

Scrollable list component that can provide reusable cells (rows).

- Cells must inherit from UITableViewCell
- Relies on UITableViewDelegate and UITableViewDatasource for data

# UICOLLECTIONVIEW

Scrollable grid component that can provide reusable items in a list or more complicated layouts.

- Cells must inherit from UICollectionViewCell
- Layout is configurable via compositional layout
- Relies on UICollectionViewDelegate and UICollectionViewDataSource for data

# UIIMAGE, UICOLOR & UIFONT

Enables engineers to customize UI based on designs.

- Images are stored in .xcasset file and used in UI through UIImage class
- Colors are stored in .xcasset file and used in UI through UIColor class
- We use mainly system fonts and adding custom ones require additional initialization

# AUTOLAYOUT

# 04

# AUTOLAYOUT

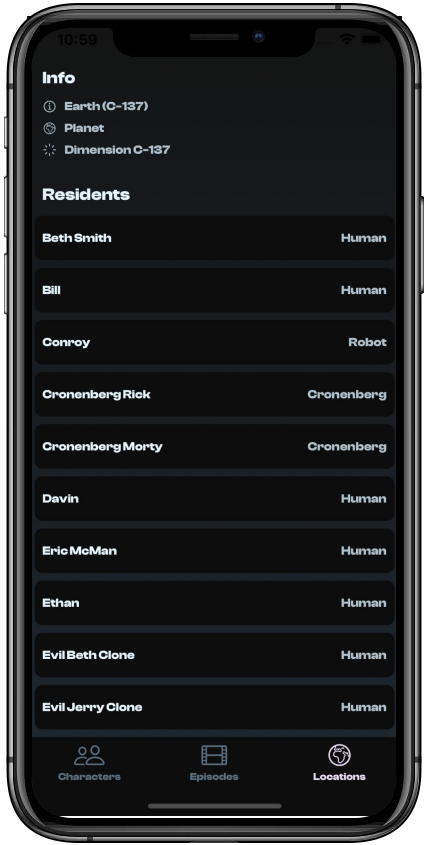
Autolayout provides a way to stack elements on screen and provide relationships between them so that the creator doesn’t have to worry about different sizes of the screen.

- Constraints (NSLayoutConstraint)
  - Edge
  - Centering
- UIStoryboard for screens and flows
  - WYSIWYG canvas
- Xib for views
  - WYSIWYG canvas

# DEMO

# LIVECODING 05

# HOMEWORK 06


10:59
Info
Earth (C-137)
Planet
Dimension C-137
Residents
Beth Smith
Human
Bill
Human
Conroy
Robot
Cronenberg Rick
Cronenberg
Cronenberg Morty
Cronenberg
Davin
Human
Eric McMan
Human
Ethan
Human
Evil Beth Clone
Human
Evil Jerry Clone
Human
Characters
Episodes
Locations

# LOCATION DETAIL

Create location detail in prepared empty tab based on today's lecture. Data are already mocked and prepared in Location and Character structs. Few hints:

- UITableView
- Use table view sections and headers
- UITableViewCell
- Storyboard
- Mock data (multiple instances of the same character)

# THANK YOU!

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# QUESTIONS

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