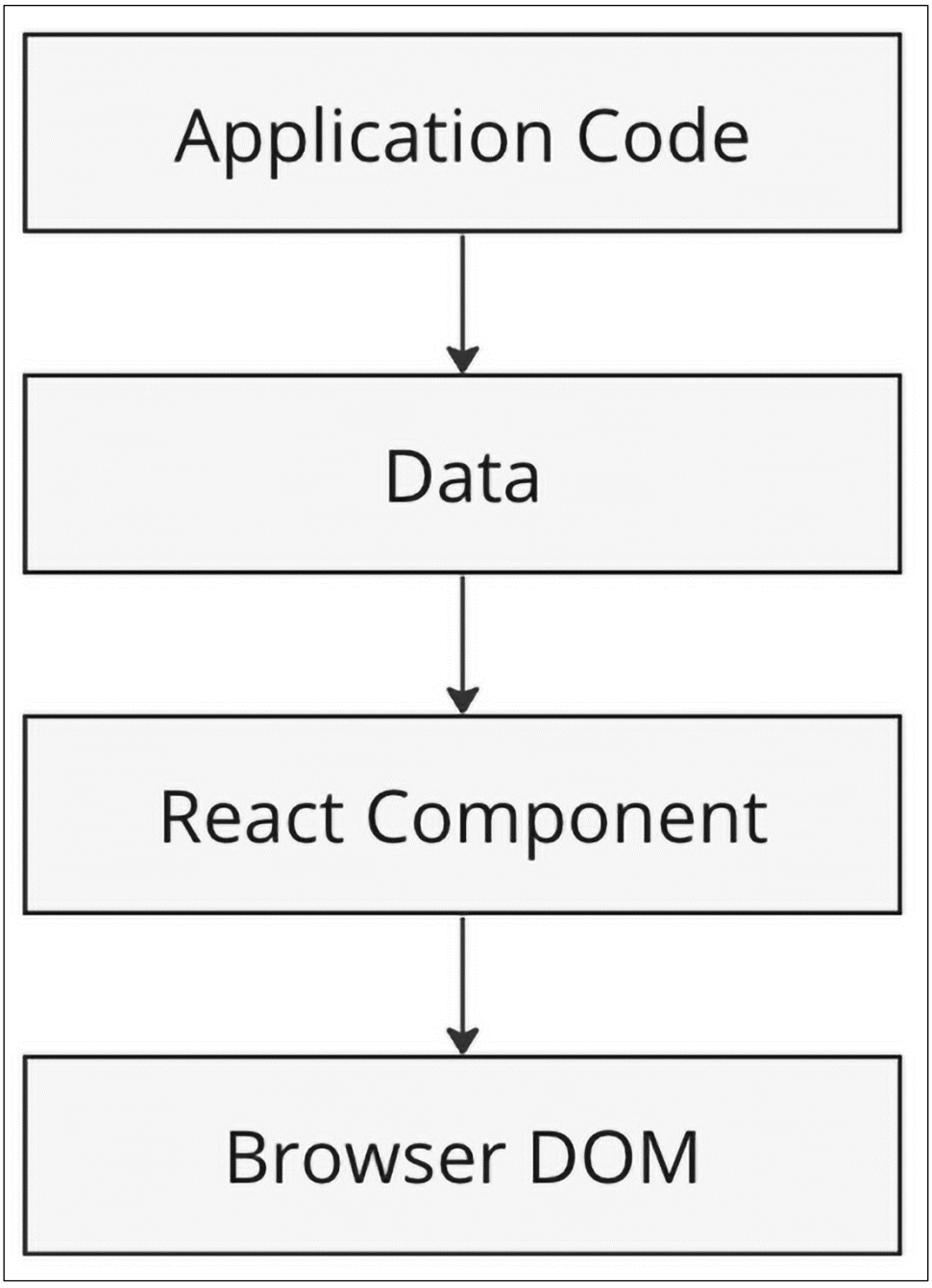
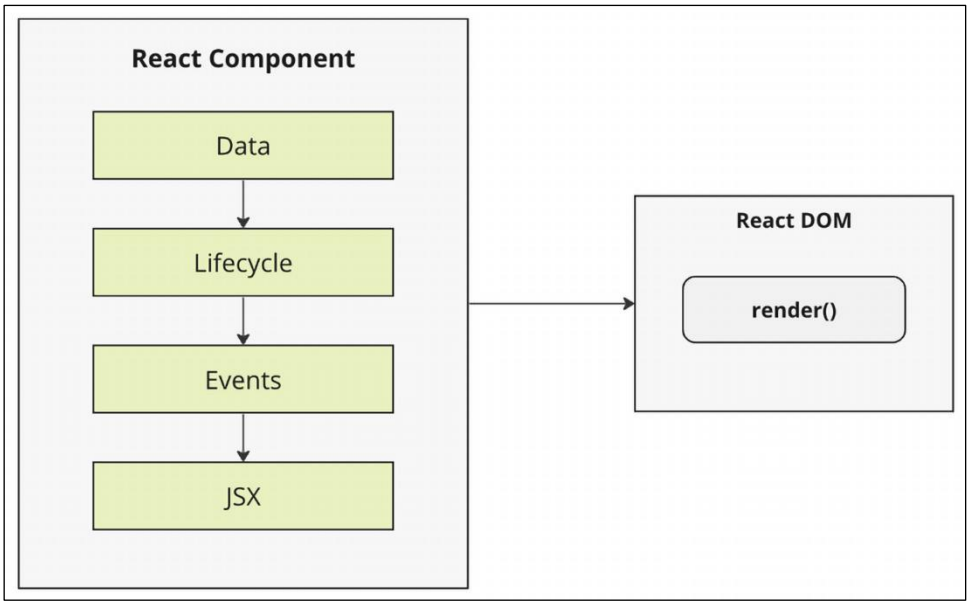
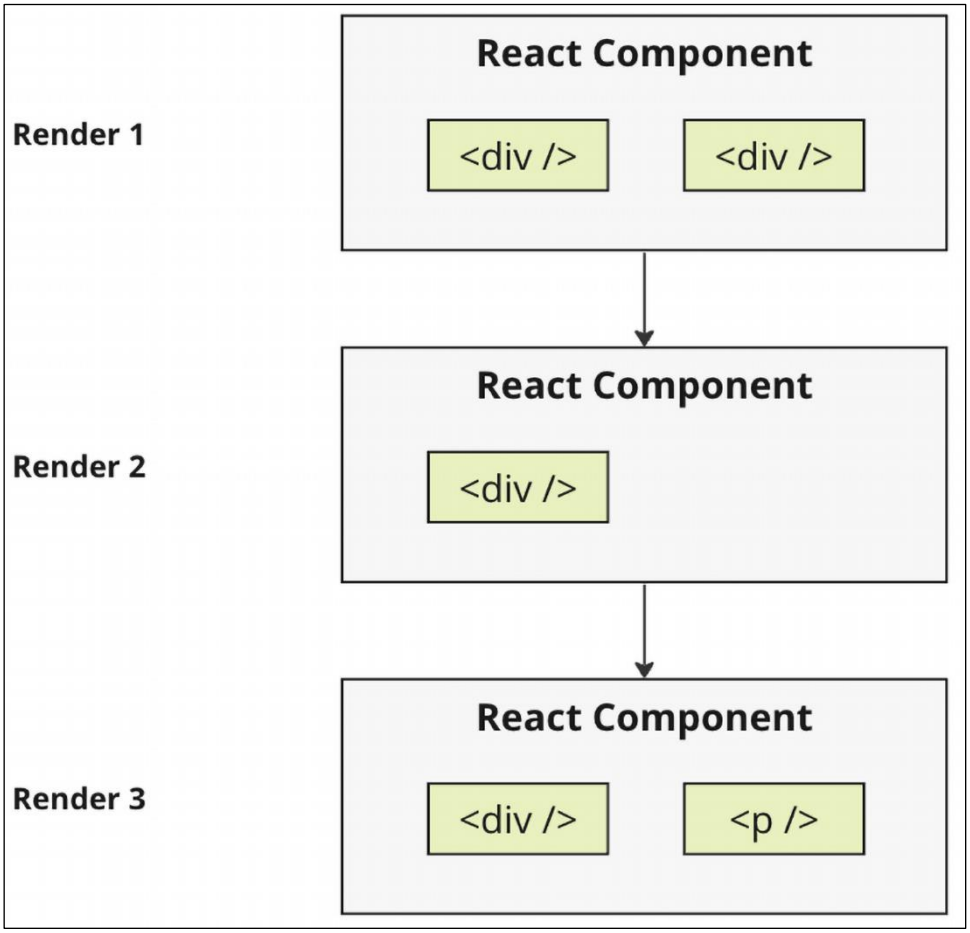
Chapter 1: Why React?



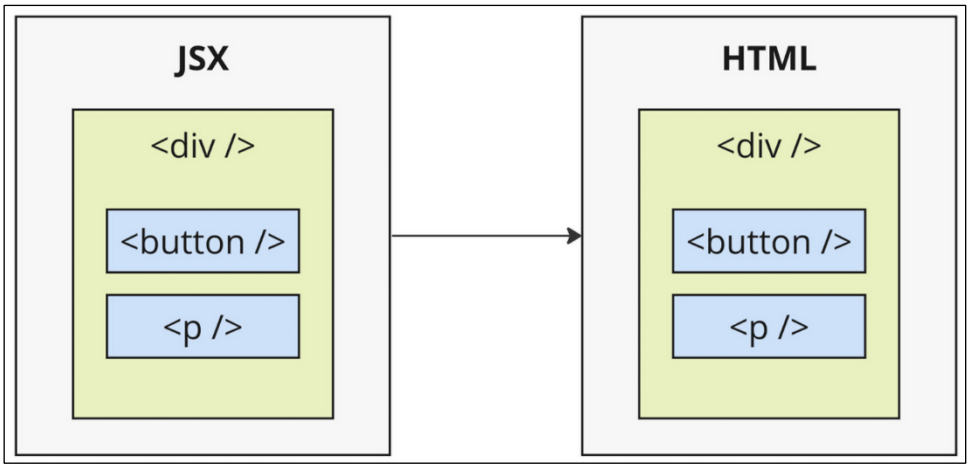

React Component
Data
Lifecycle
Events
JSX
React DOM
render()


Render 1
React Component

Render 2
React Component

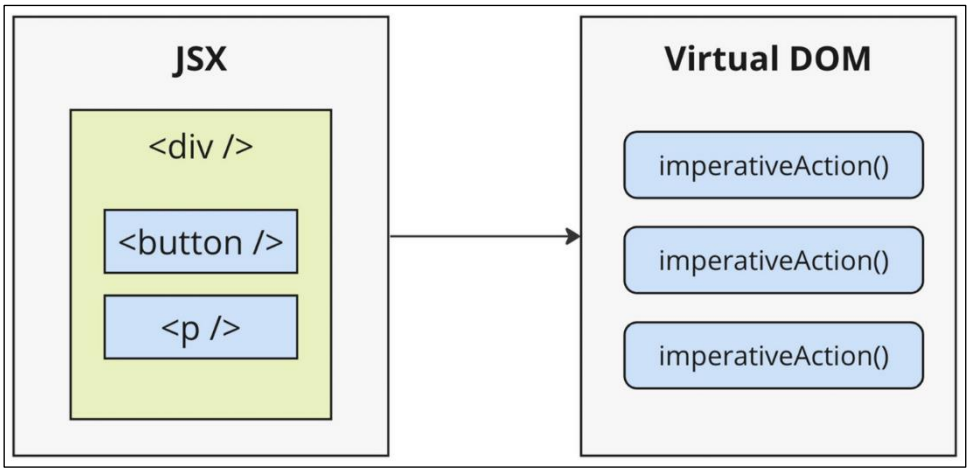
Render 3
React Component

<p />

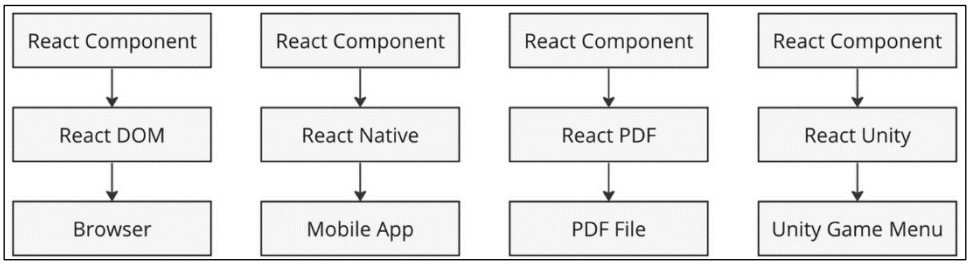

JSX

<button />
<p />
HTML

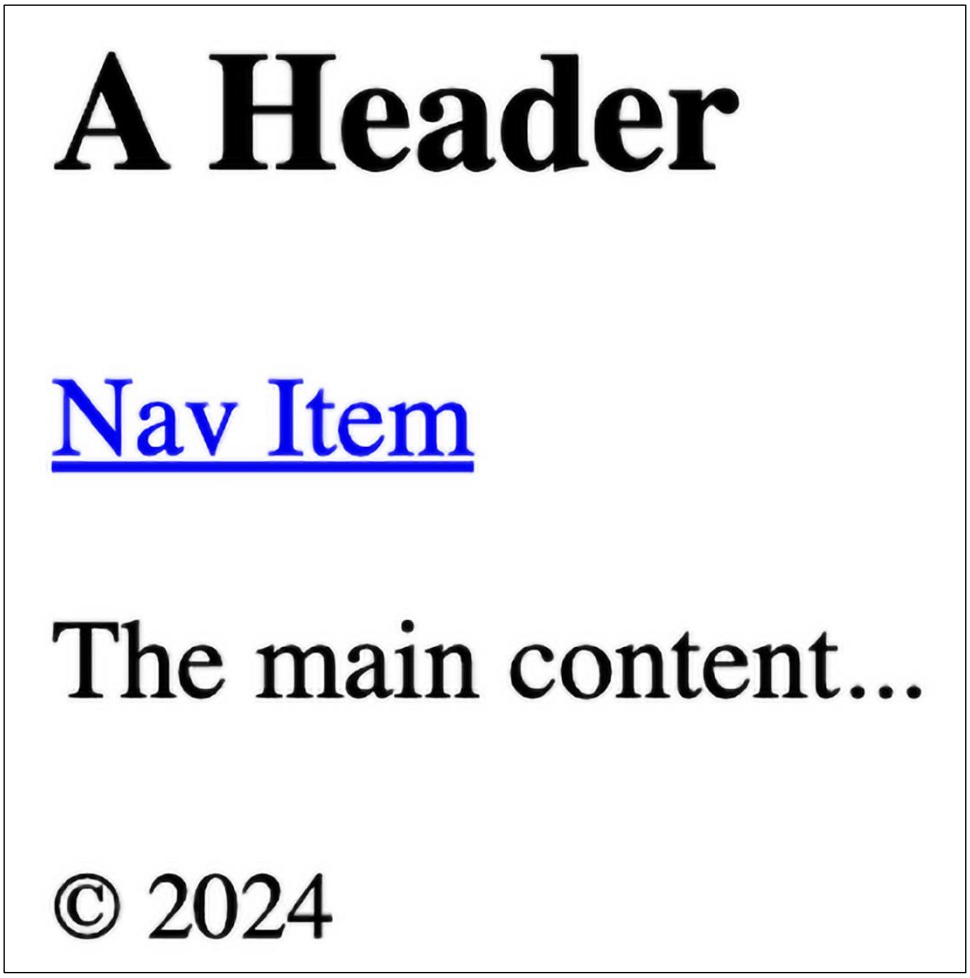
<button />
<p />

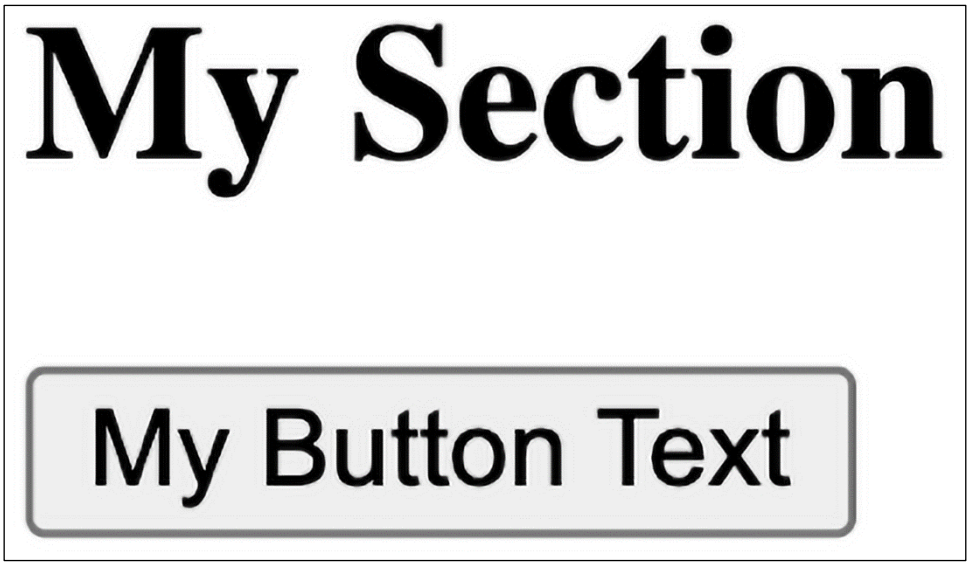

JSX

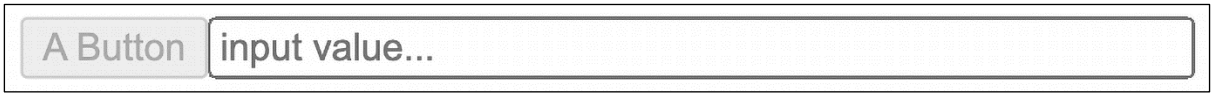
<button />
<p />
Virtual DOM
imperativeAction()
imperativeAction()
imperativeAction()


React Component
React DOM
Browser
React Component
React Native
Mobile App
React Component
React PDF
PDF File
React Component
React Unity
Unity Game Menu

Chapter 2: Rendering with JSX




My Section
My Button Text

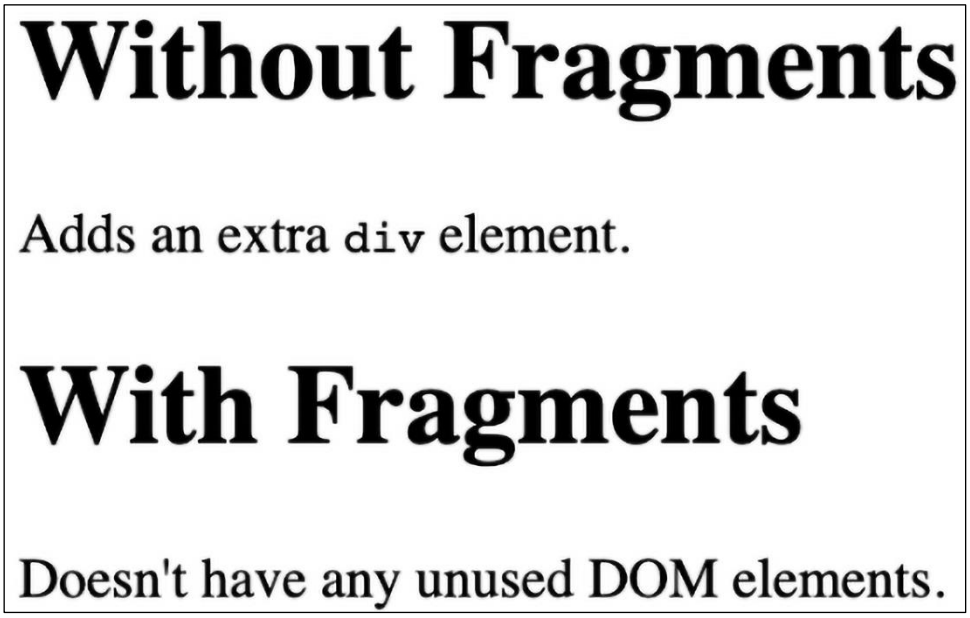

A Button
input value...

Array

- First
- Second
- Third

Object

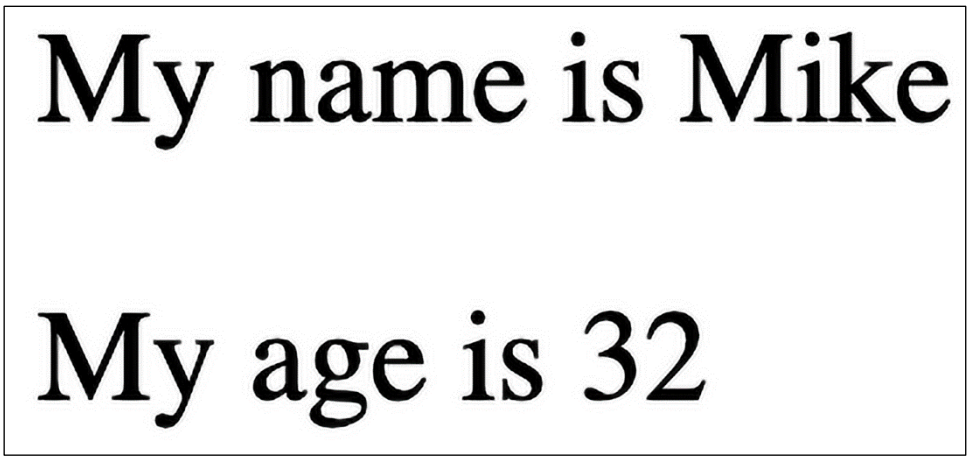
- **first:** 1
- **second:** 2
- **third:** 3

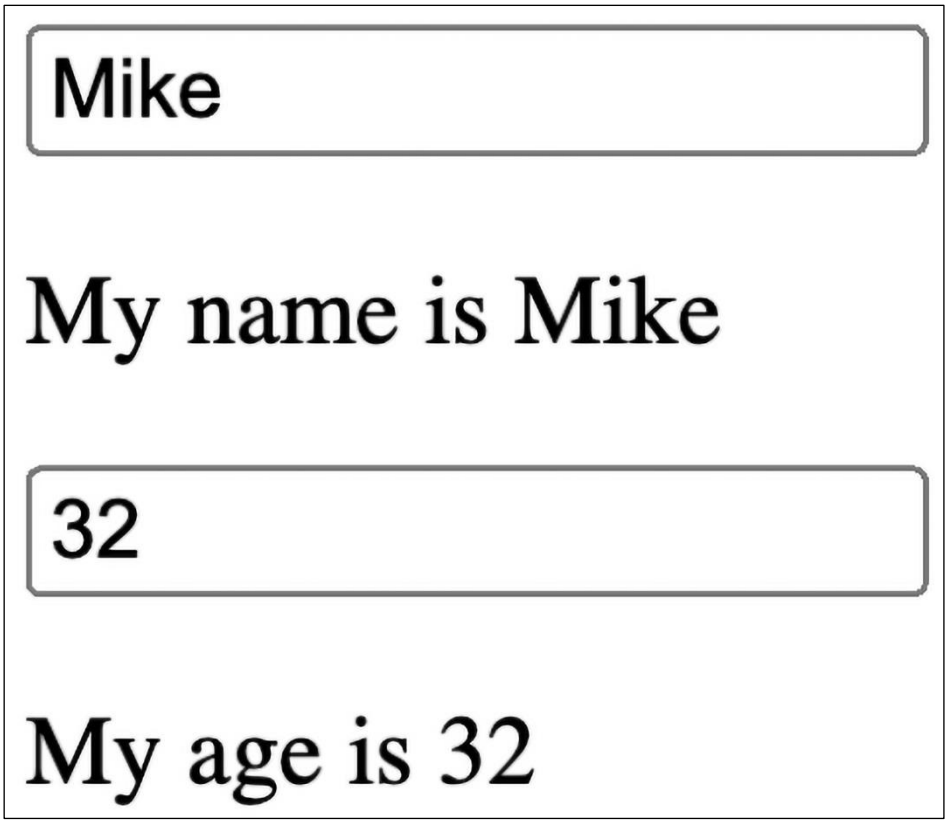



```
▼<div>
    <h1>Without Fragments</h1>
  ▼<p>
      "Adds an extra "
      <code>div</code>
      " element."
    </p>
  </div>
```

```
<h1>With Fragments</h1>
<p>Doesn't have any unused DOM elements.</p>
```

Chapter 3: Understanding React Components and Hooks





ID: loading...

Name: loading...

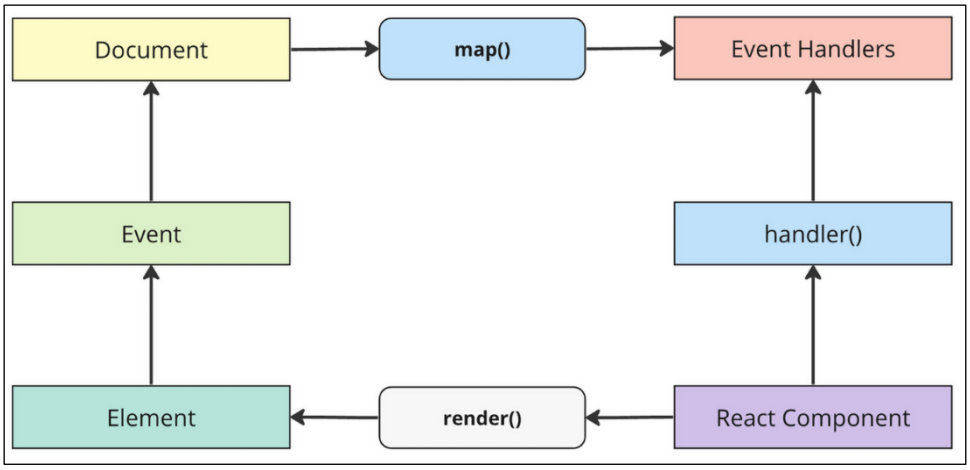
ID: 1

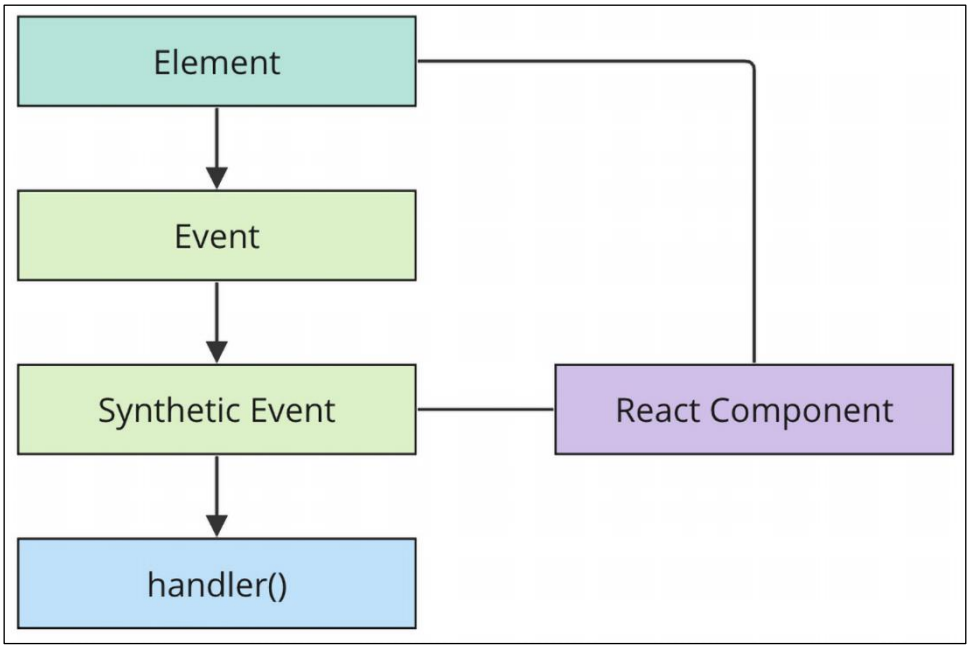
Name: Mike

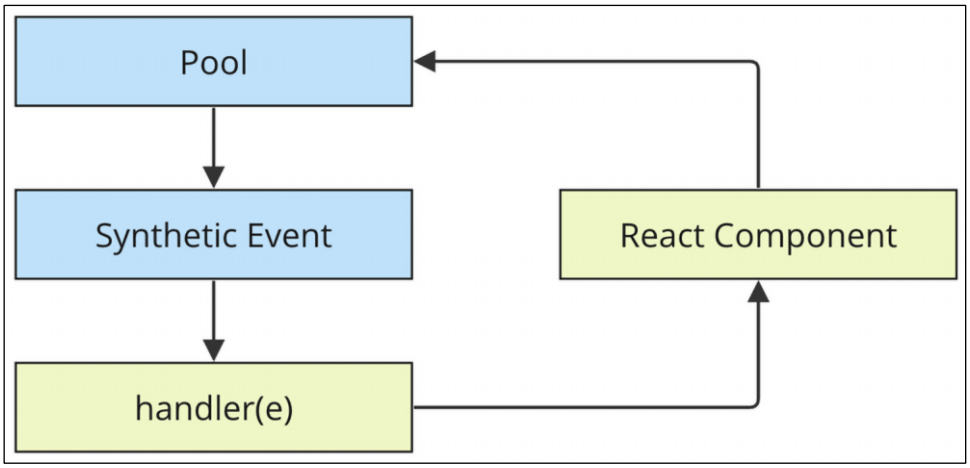
Show Timer

Hide Timer
Timer: 100

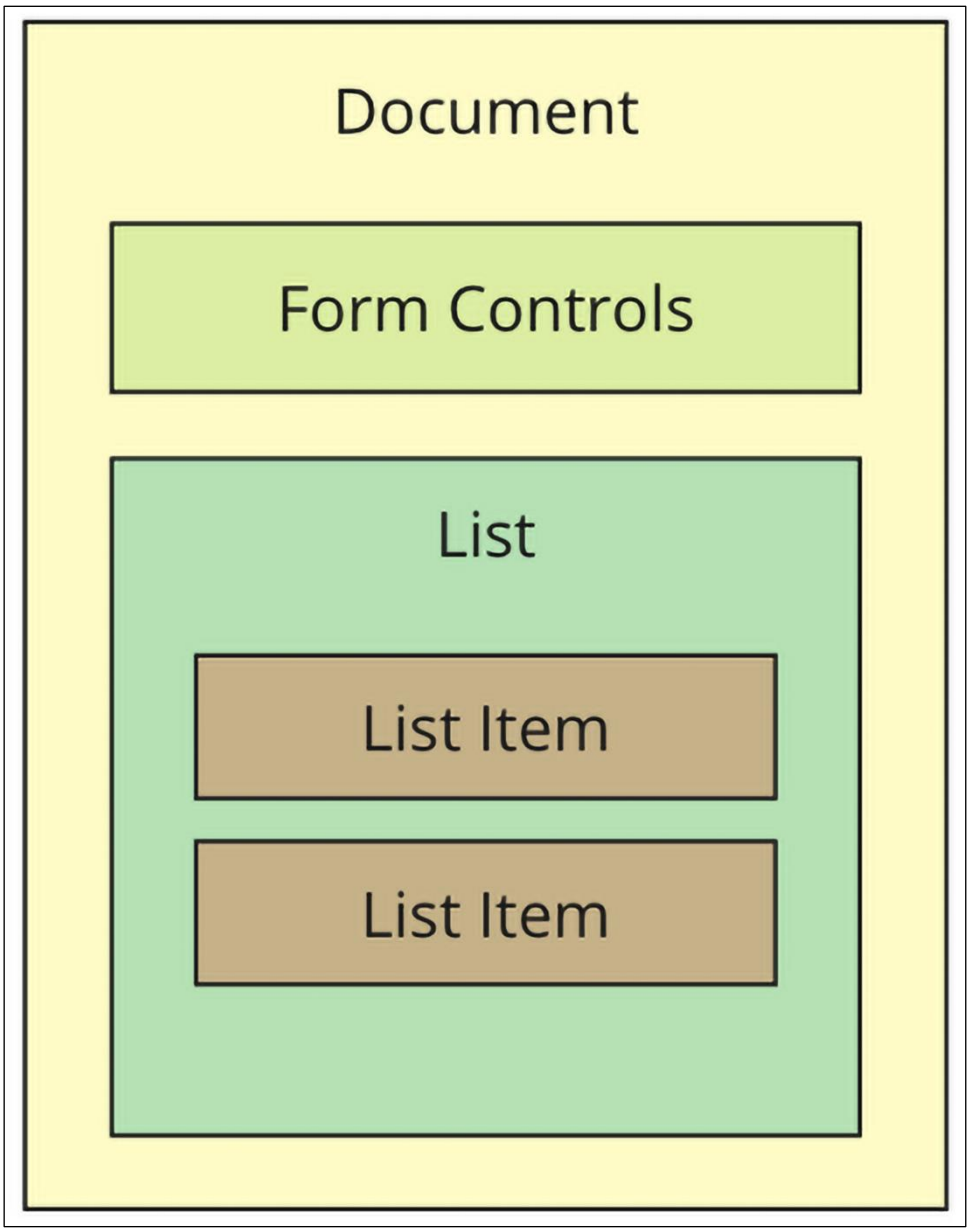
Chapter 4: Event Handling in the React Way

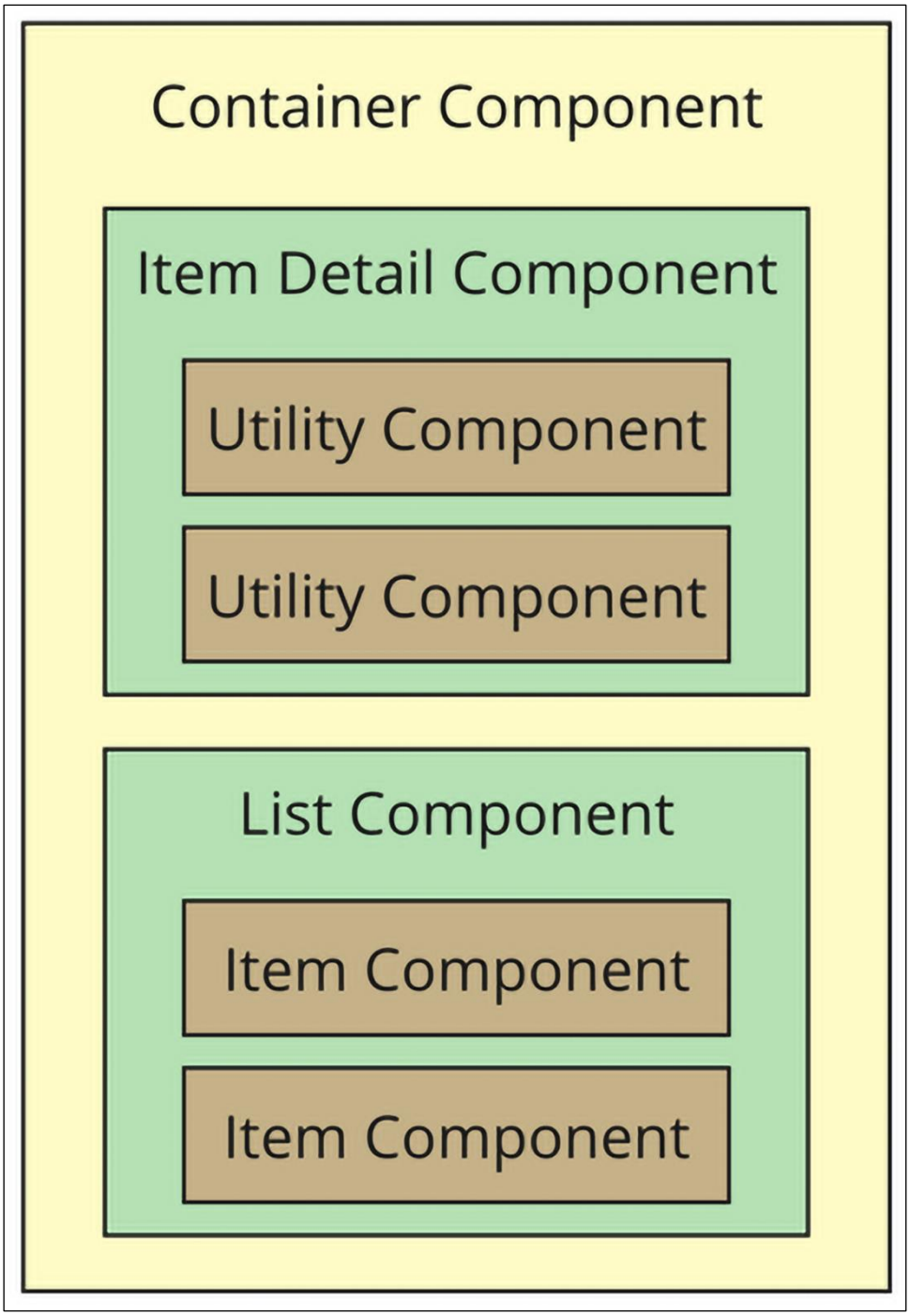





Pool
Synthetic Event
handler(e)
React Component

Chapter 5: Crafting Reusable Components



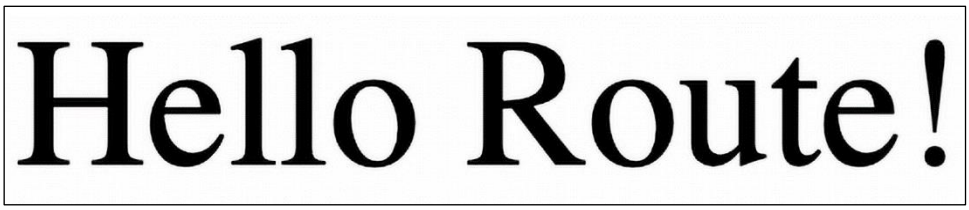

Container Component
Item Detail Component
Utility Component
Utility Component
List Component
Item Component
Item Component

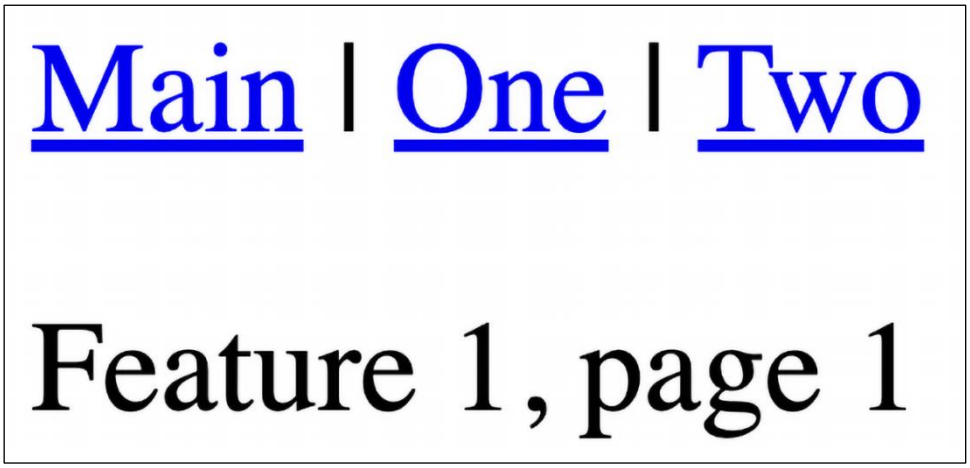
Chapter 6: Type-Checking and Validation with TypeScript

```
ReactDOM.createRoot(document.getElementById("root")!).render(
  <React.StrictMode>
    <App />    Property 'message' is missing in type '{}' but required in type 'AppProps'.
  </React.StrictMode>
);
```

```
ReactDOM.createRoot(document.getElementById("root")!).render(
  <React.StrictMode>
    <App message="Hello TypeScript" />
  </React.StrictMode>
);
```

Chapter 7: Handling Navigations with Routes





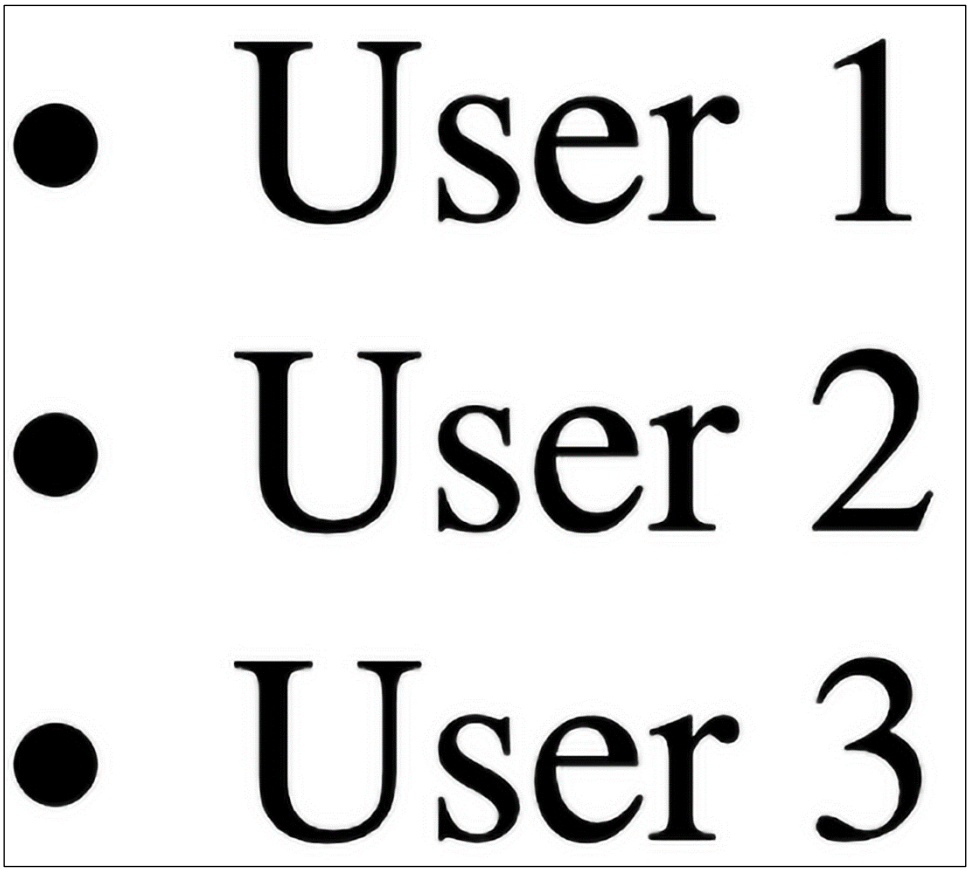
User ID: 0

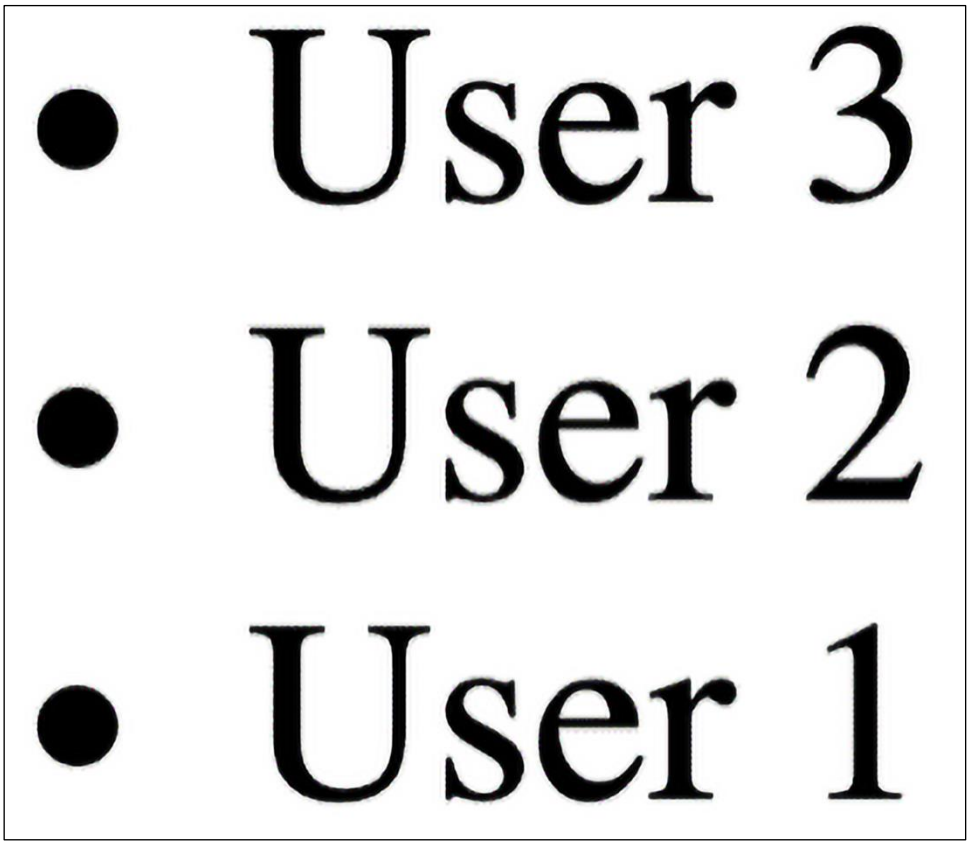
John

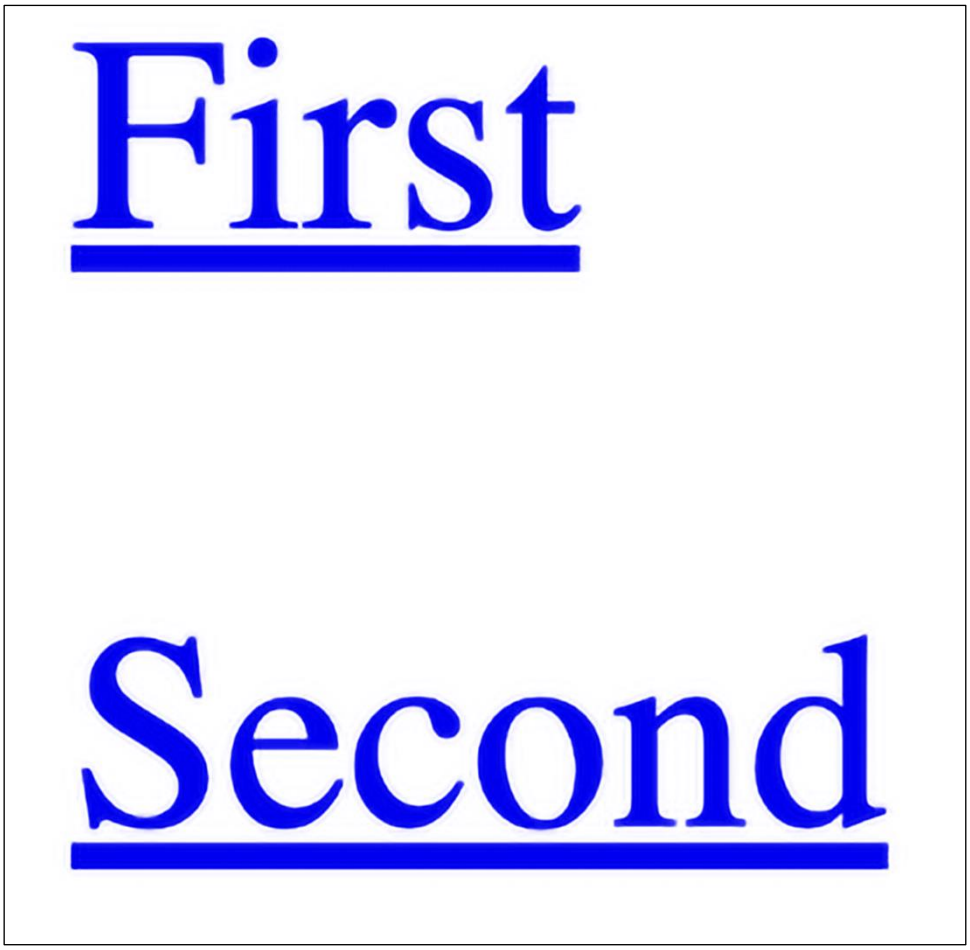
Snow

40

User not found


User 1
User 2
User 3


User 3
User 2
User 1


First
Second

First

Second

First

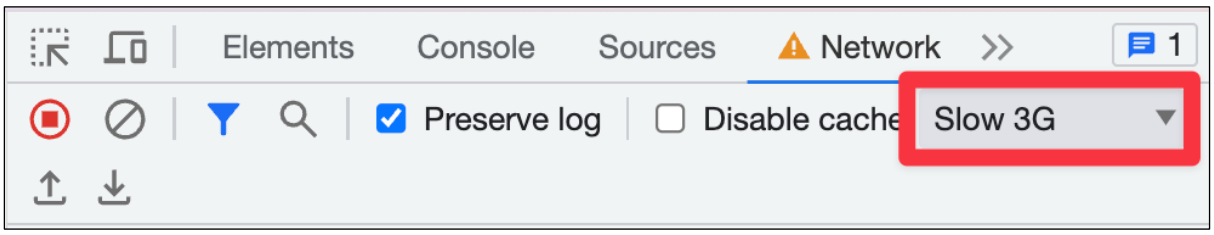
Echo param

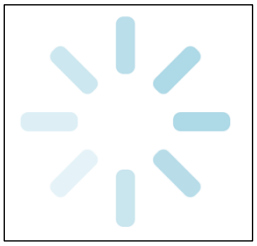
Echo query

From Param

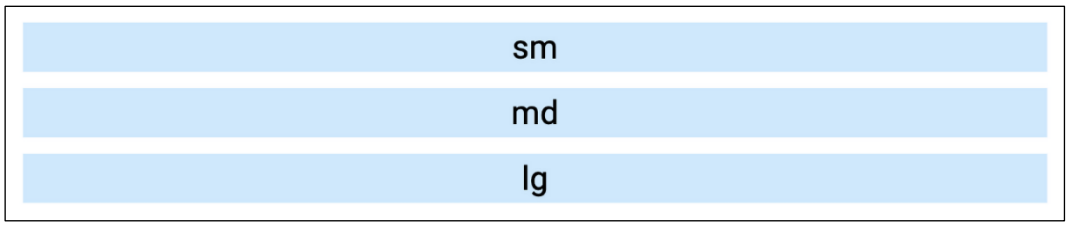
From Query

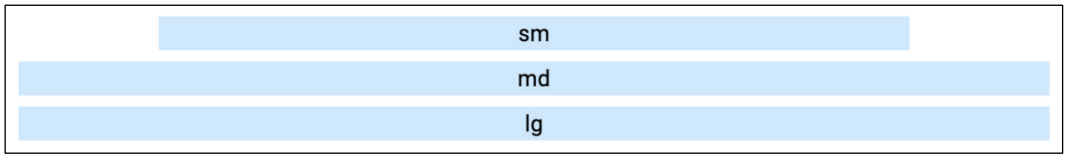
Chapter 8: Code Splitting Using Lazy Components and Suspense

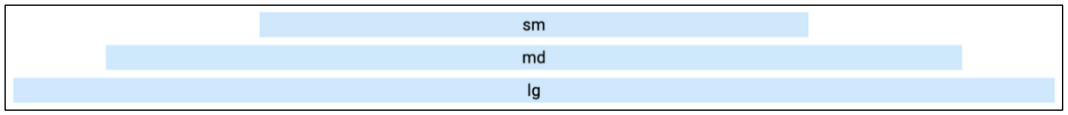


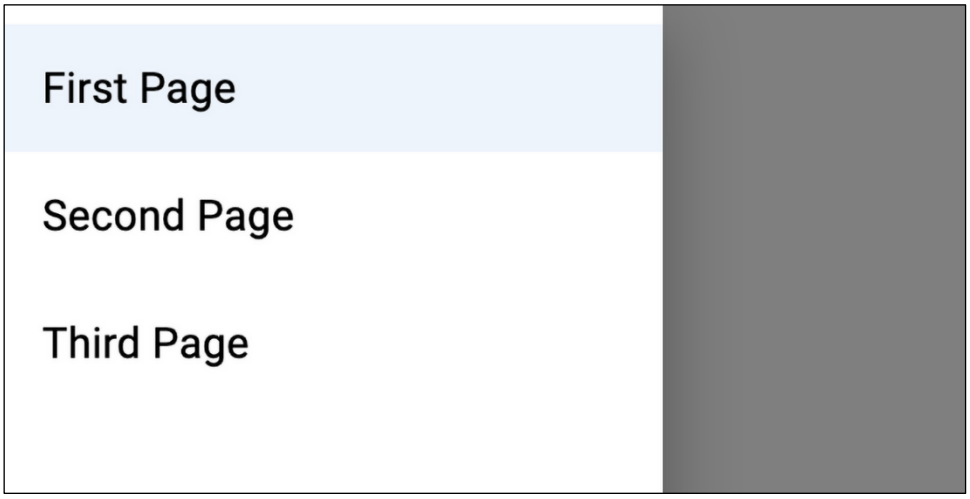


Chapter 9: User Interface Framework Components

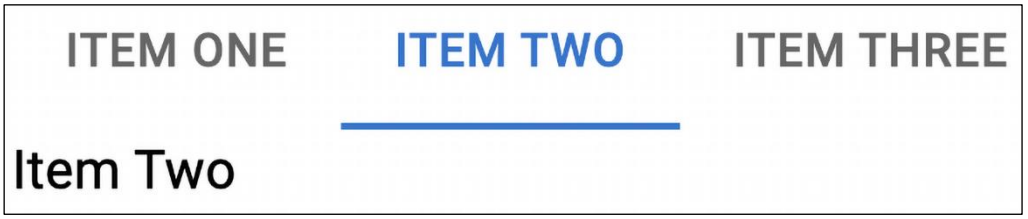


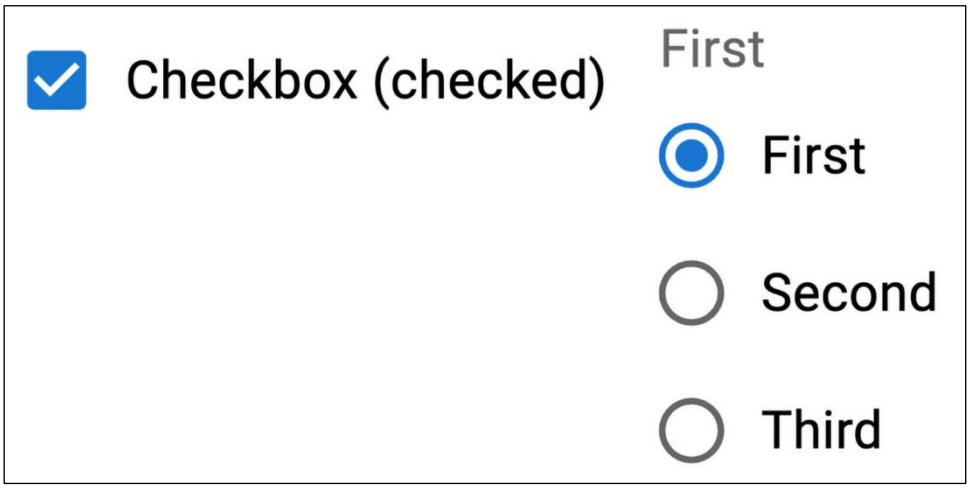


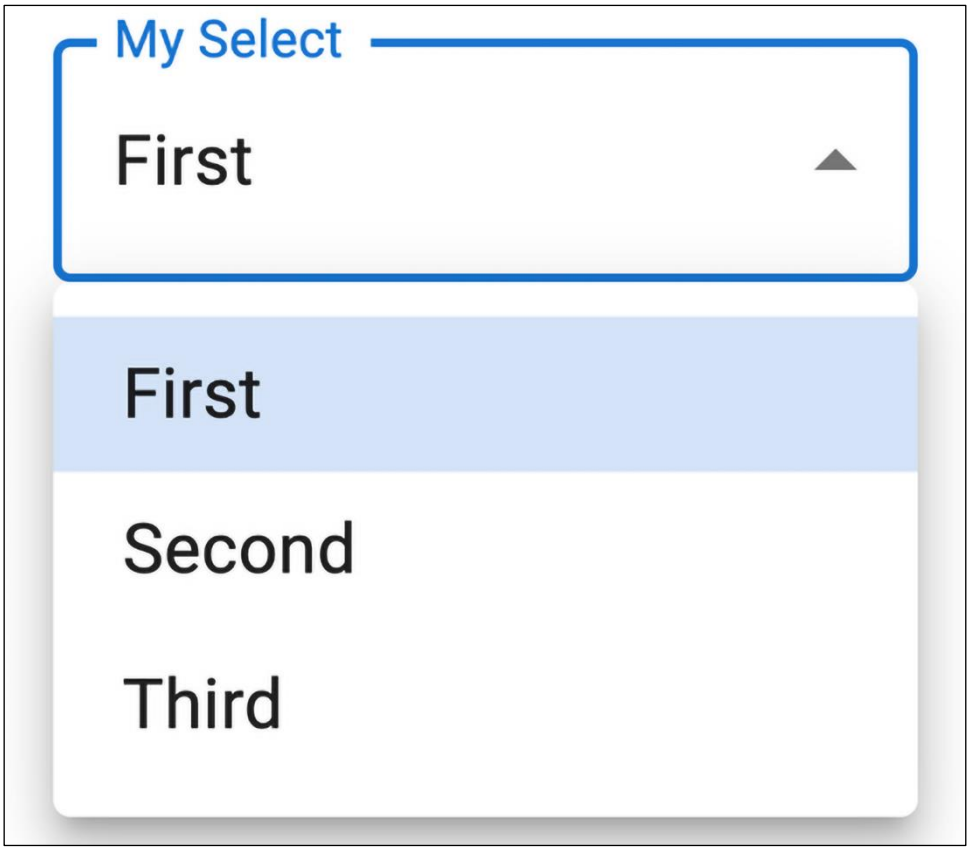


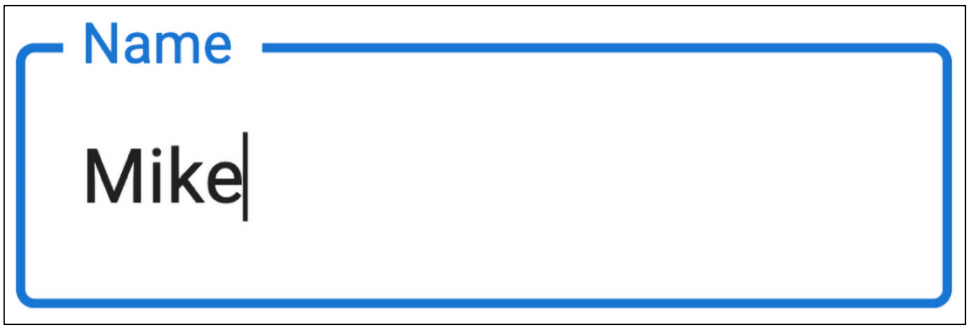

First Page
Second Page
Third Page

ITEM ONE
ITEM TWO
ITEM THREE
Item One


ITEM ONE
ITEM TWO
ITEM THREE
Item Two


Checkbox (checked)
First
First
Second
Third


My Select
First
First
Second
Third

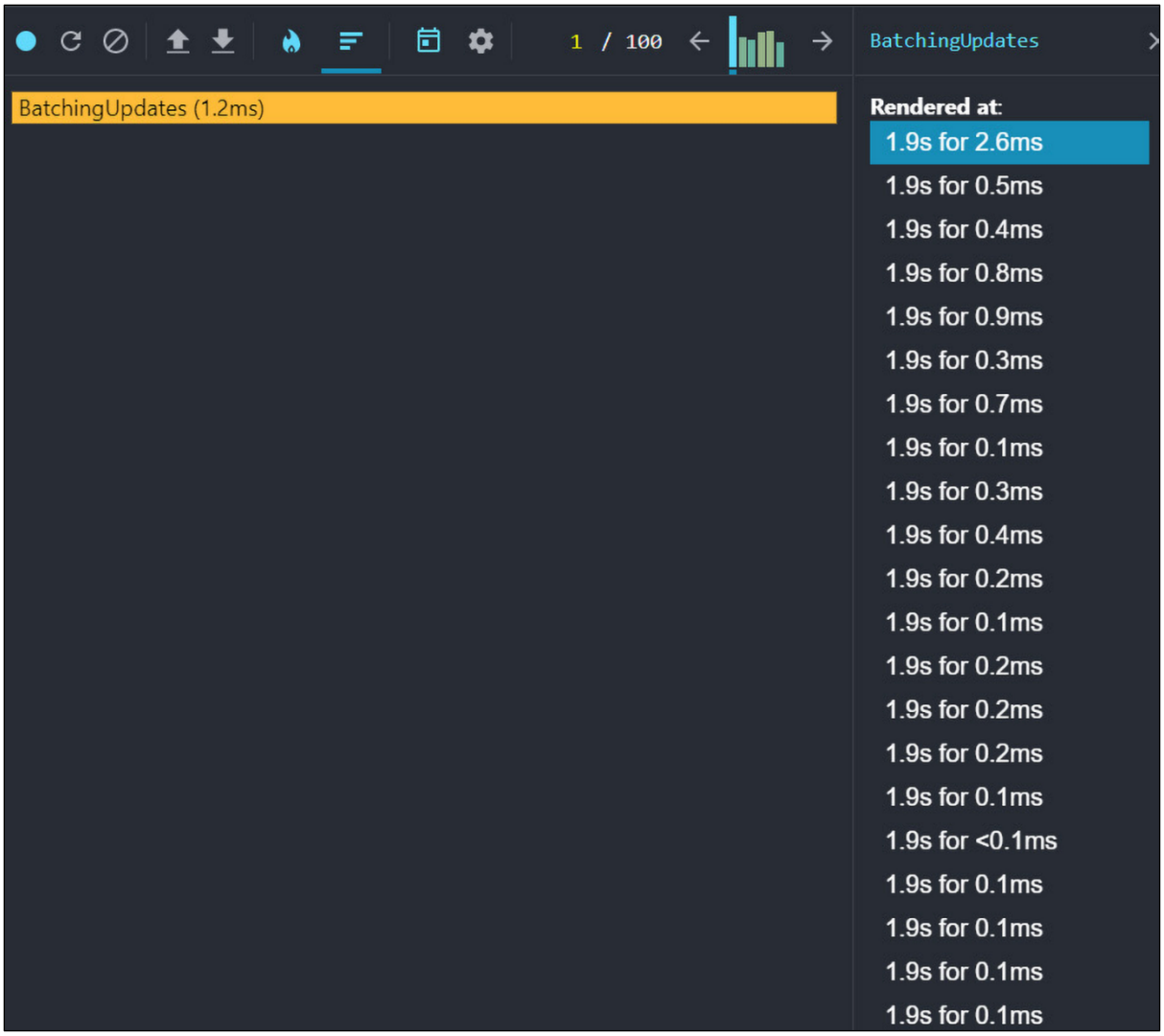

Name
Mike

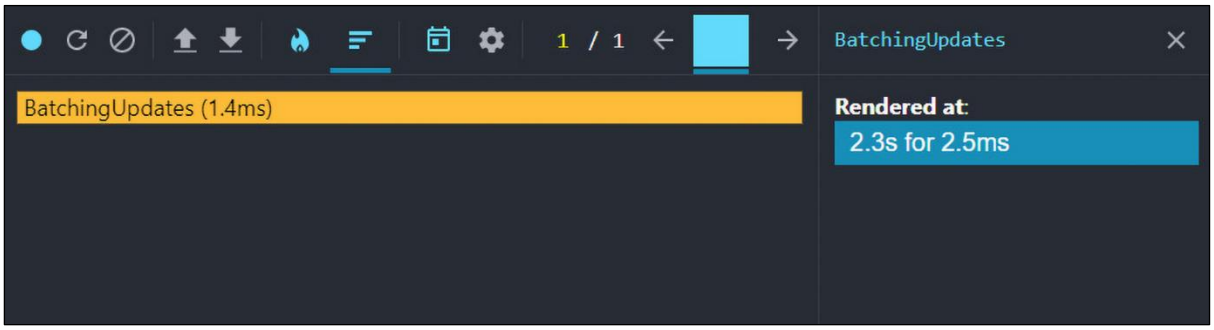
CONTAINED
TEXT
OUTLINED

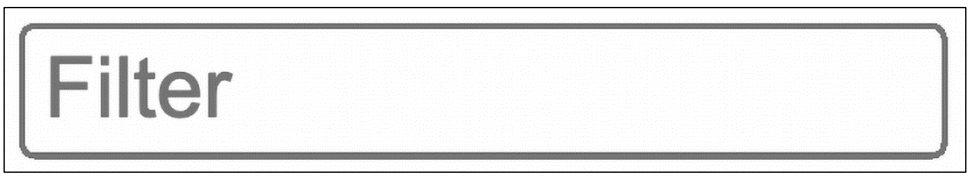
CONTAINED
TEXT
OUTLINED

FIRST
SECOND
THIRD

Chapter 10: High-Performance State Updates







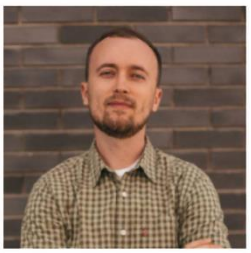
50

loading...

1

- Item 1
- Item 10
- Item 11
- Item 12
- Item 13
- Item 14
- Item 15

Chapter 11: Fetching Data from a Server



Michael Sakhniuk

Software Engineer at KappaPay (kappapay.com)

Location: Barcelona, Spain

Company: @kappapay

Followers: 67

Following: 22

Public Repos: 15

Public Gists: 2

GitHub Profile: sakhnyuk

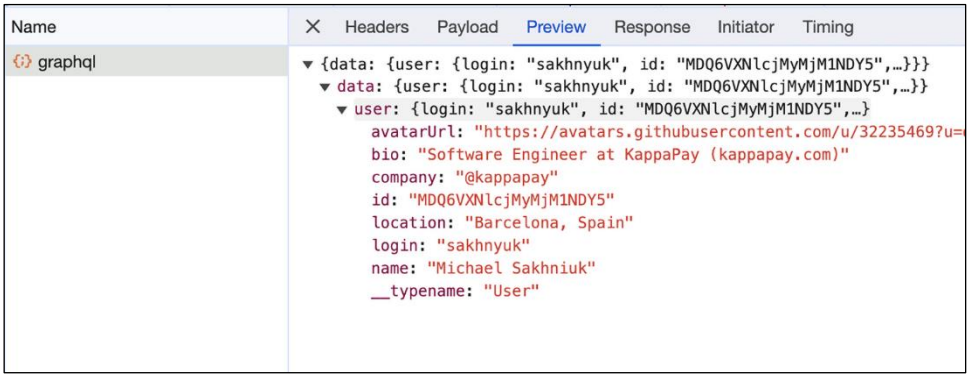
```
Request: GET /users/sakhnyuk                                    api.ts:13
Response:                                                       api.ts:19
  {login: 'sakhnyuk', id: 32235469, node_id: 'MDQ6VXNlc
▶ jMyMjM1NDY5', avatar_url: 'https://avatars.githubuser
  content.com/u/32235469?v=4', gravatar_id: '', …}
```

Michael Sakhniuk

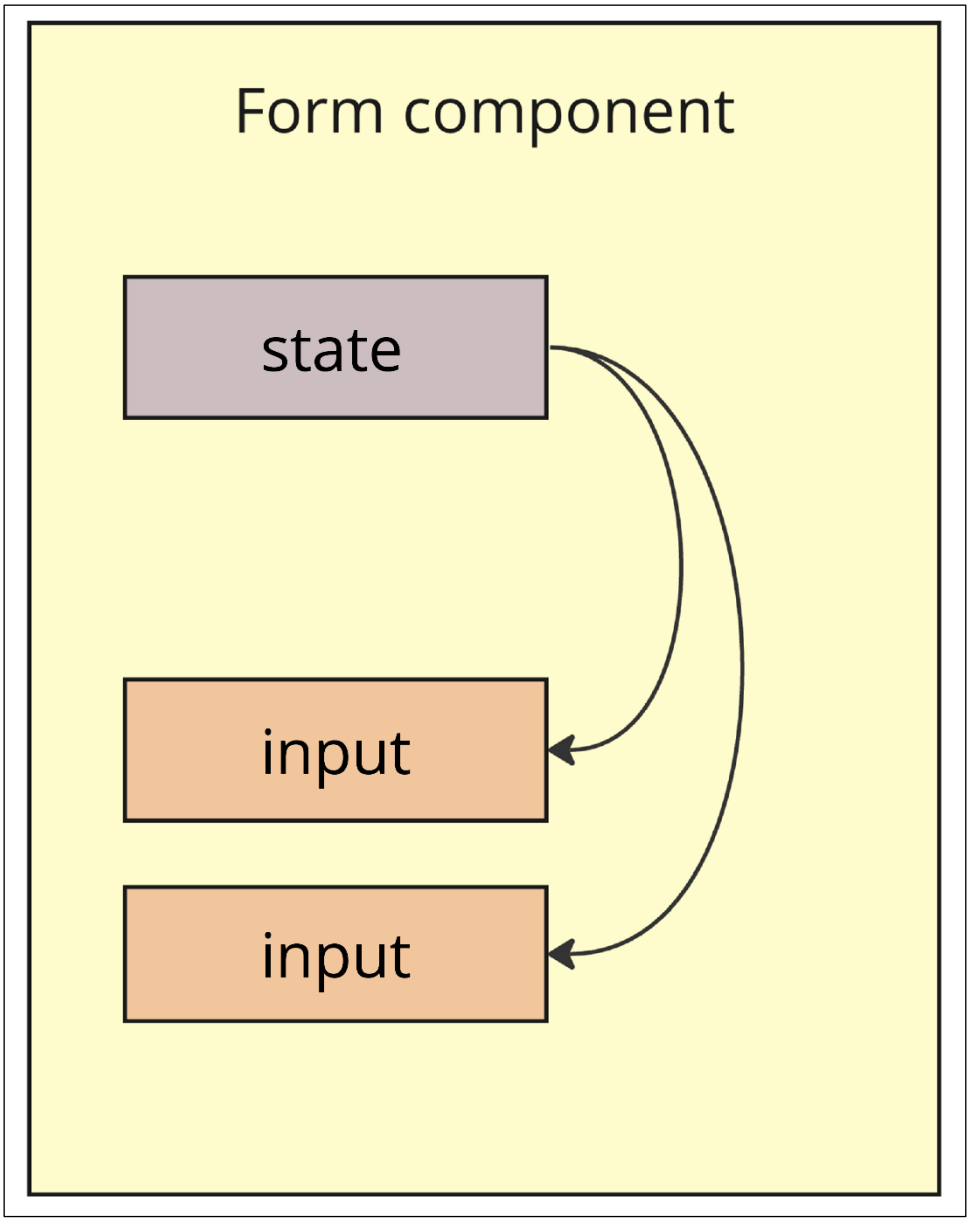
Software Engineer at KappaPay (kappapay.com)

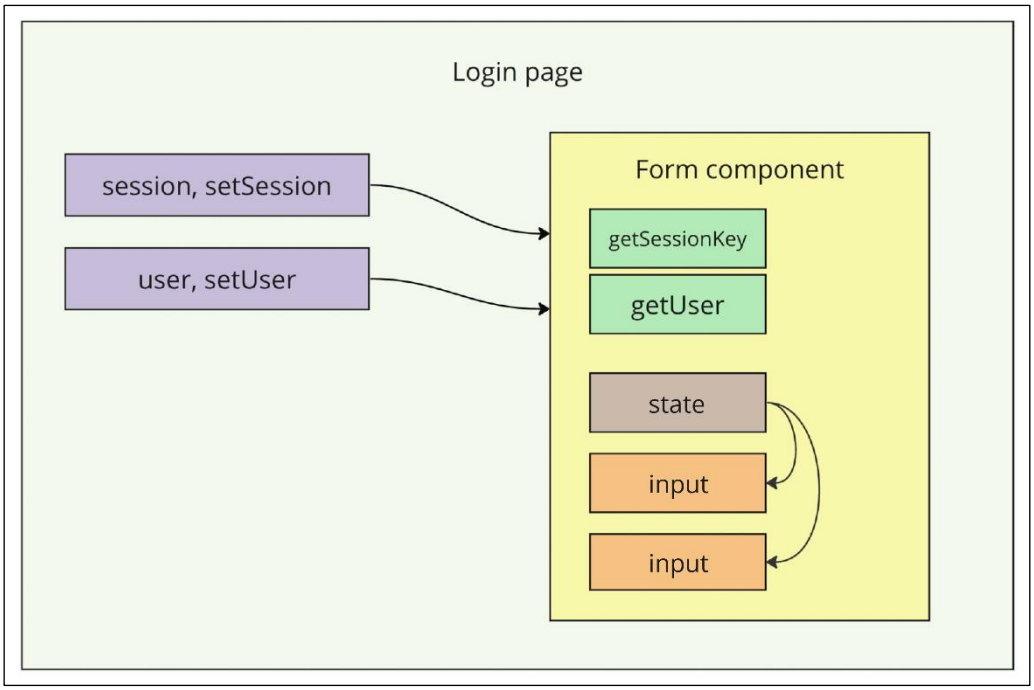
Location: Barcelona, Spain

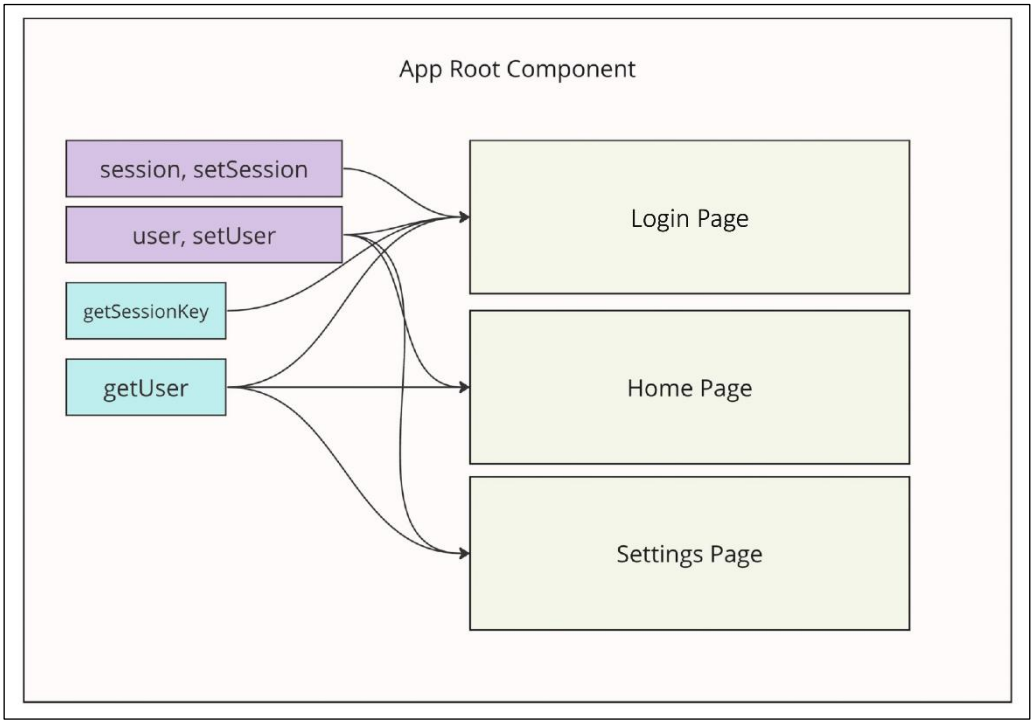
Company: @kappapay

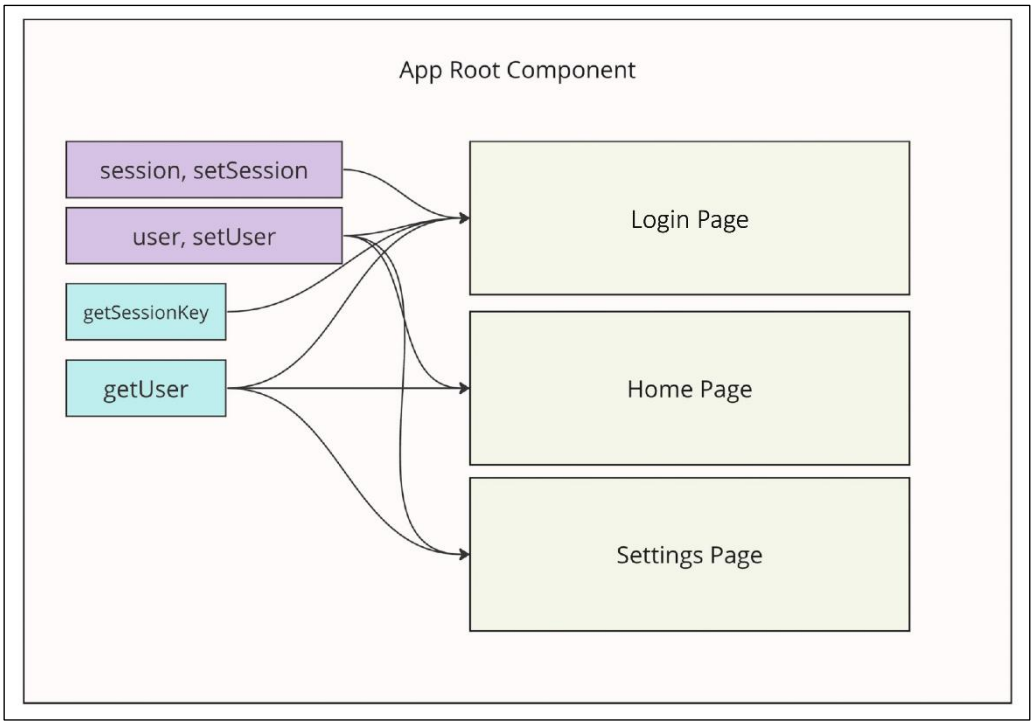


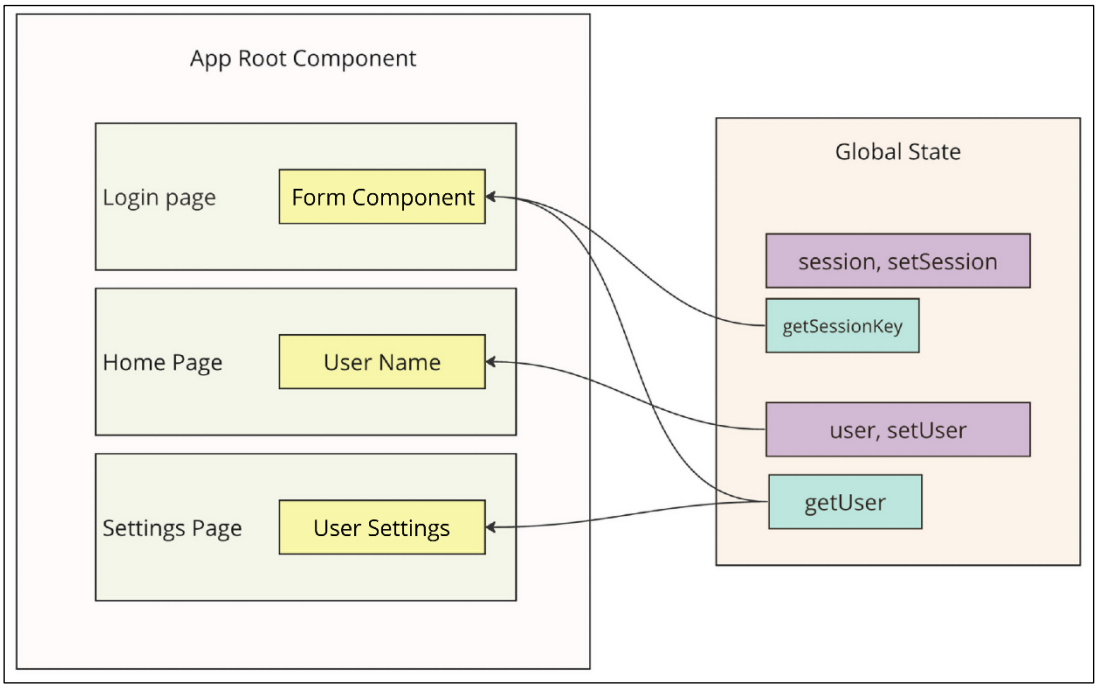
Chapter 12: State Management in React

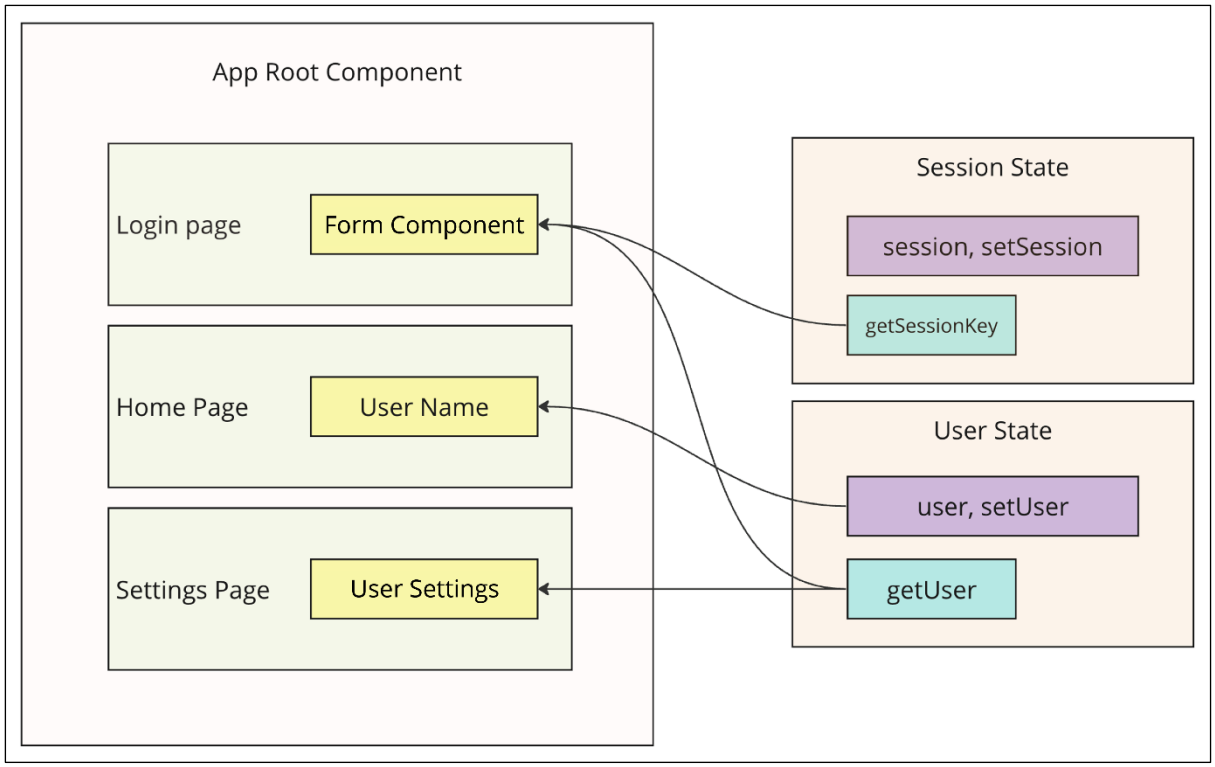



Login page
session, setSession
user, setUser
Form component
getSessionKey
getUser
state
input
input

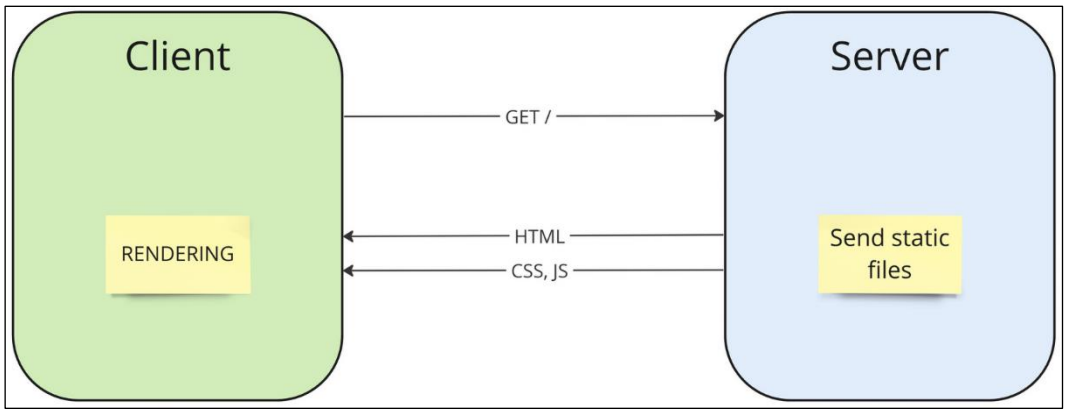

App Root Component
session, setSession
user, setUser
getSessionKey
getUser
Login Page
Home Page
Settings Page

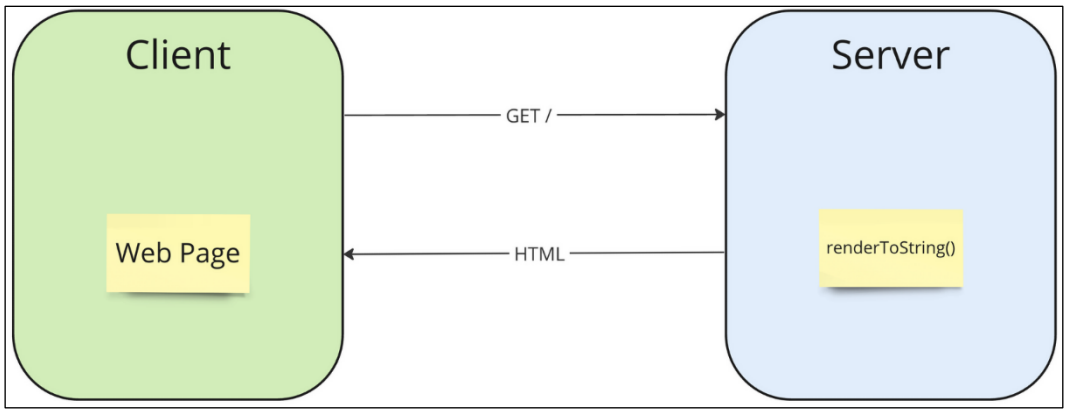

App Root Component
session, setSession
user, setUser
getSessionKey
getUser
Login Page
Home Page
Settings Page

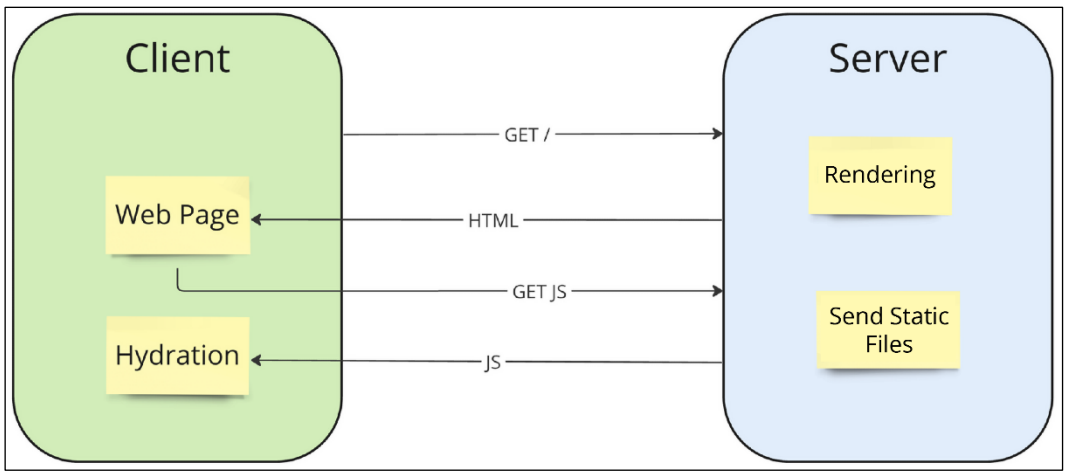

App Root Component
Login page
Form Component
Home Page
User Name
Settings Page
User Settings
Global State
session, setSession
getSessionKey
user, setUser
getUser

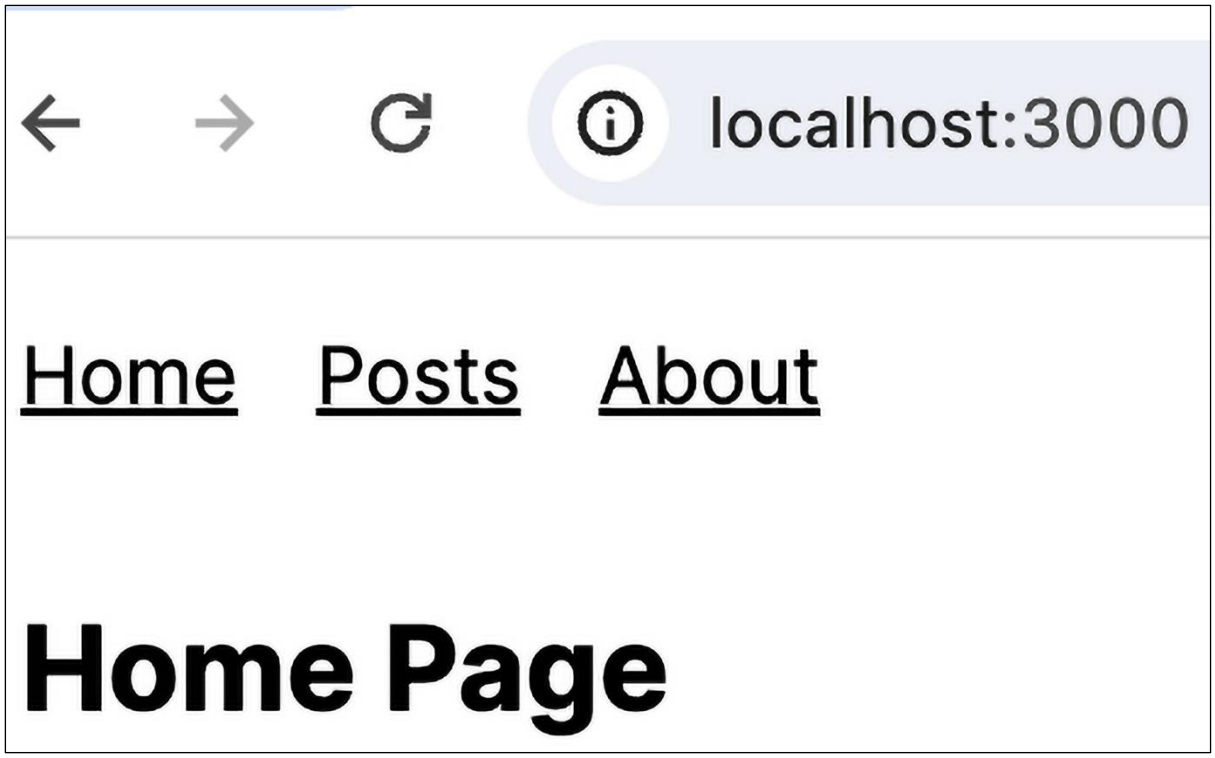

App Root Component
Login page
Form Component
Home Page
User Name
Settings Page
User Settings
Session State
session, setSession
getSessionKey
User State
user, setUser
getUser

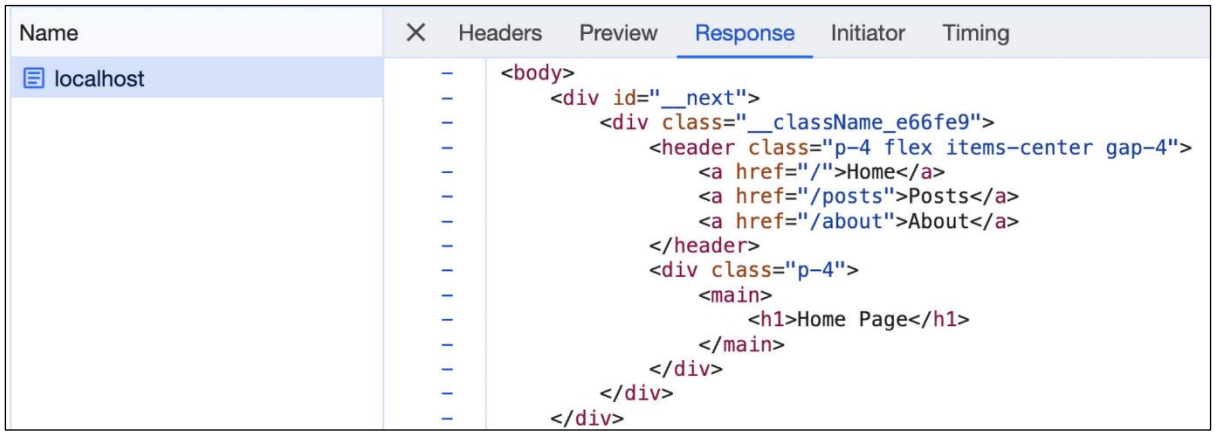
Chapter 13: Server-Side Rendering





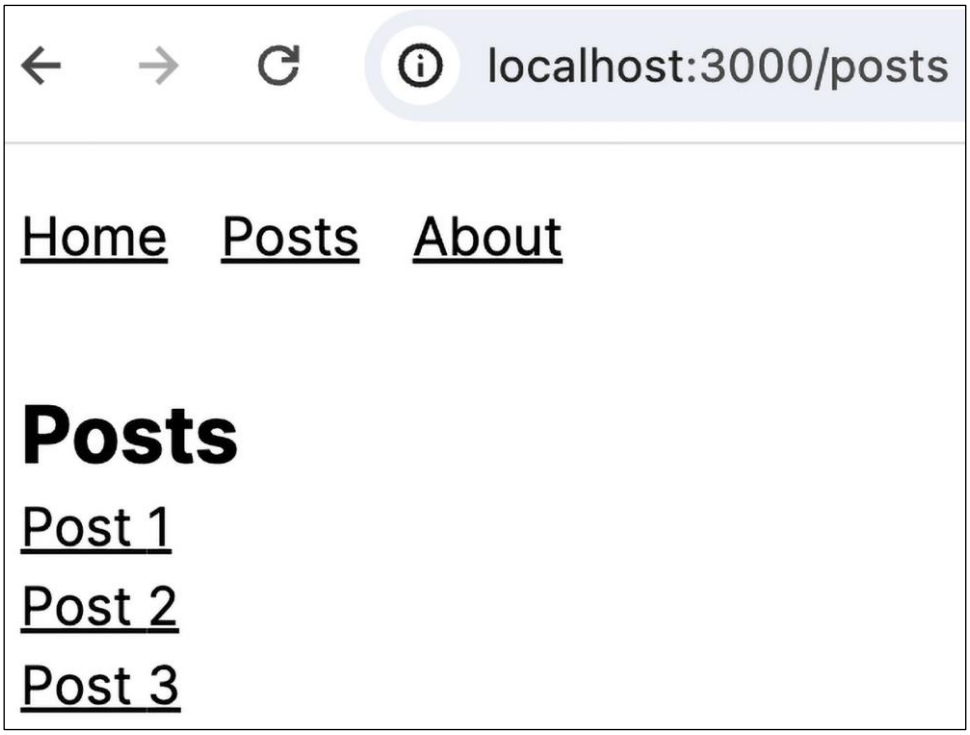


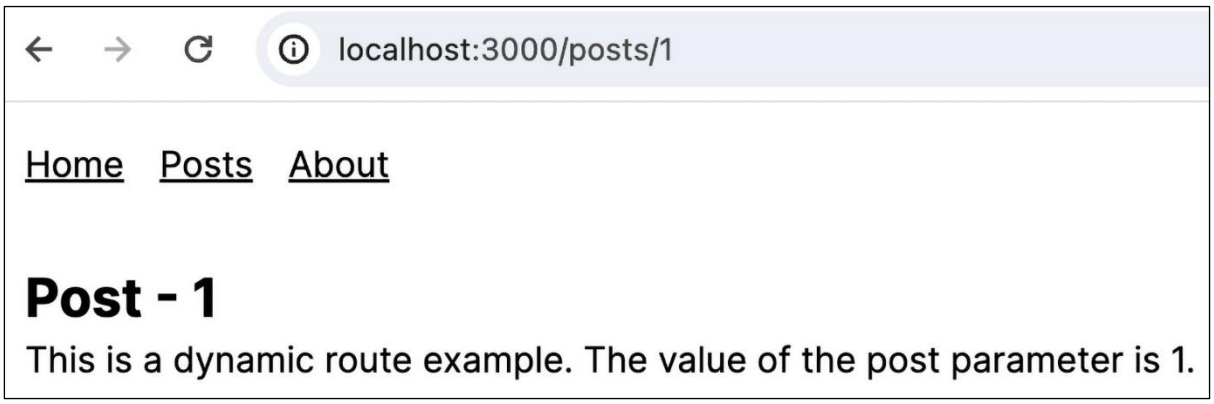

localhost:3000
Home Posts About
Home Page


Name
localhost
Headers
Preview
Response
Initiator
Timing
<body>

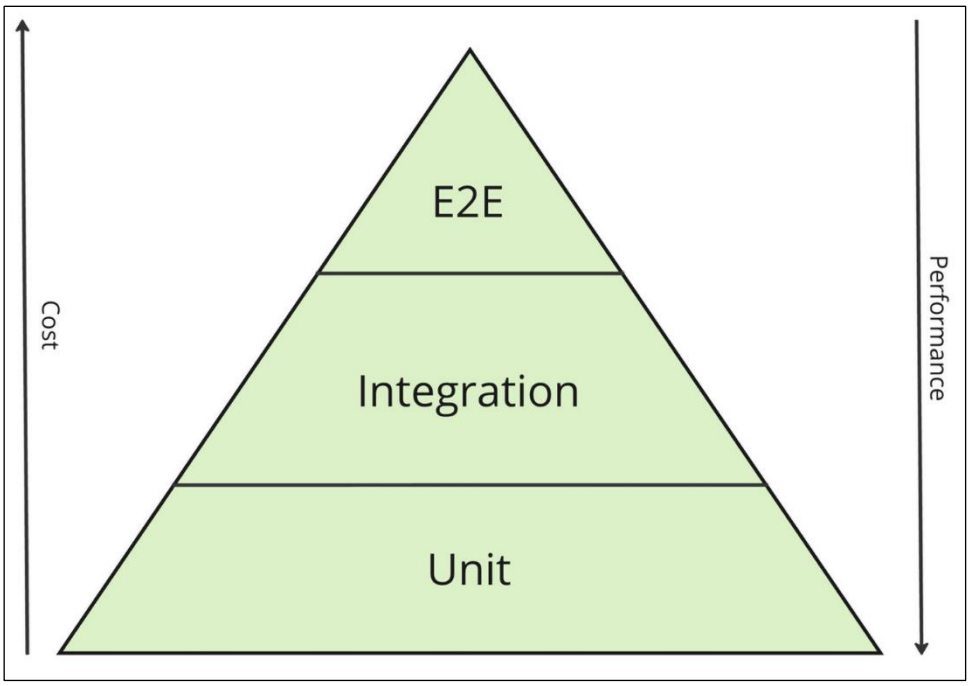
<header class="p-4 flex items-center gap-4">
Home
Posts
About
</header>

<main>
<h1>Home Page</h1>
</main>

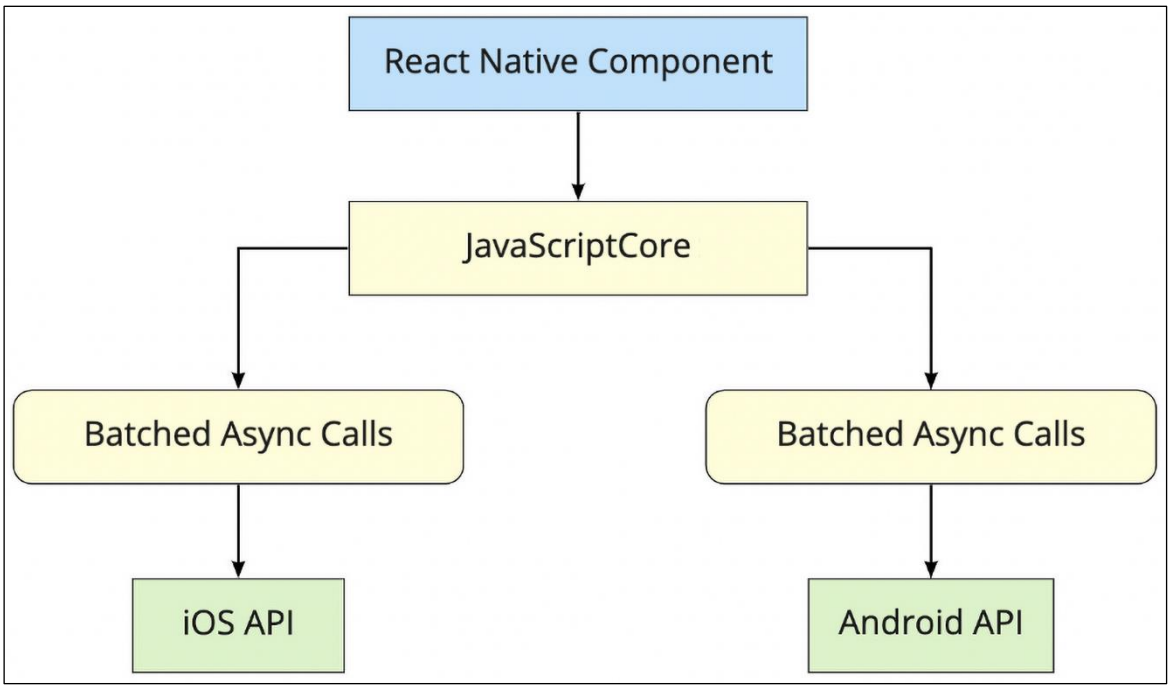

localhost:3000/posts
Home Posts About
Posts
Post 1
Post 2
Post 3


localhost:3000/posts/1
Home Posts About
Post - 1
This is a dynamic route example. The value of the post parameter is 1.

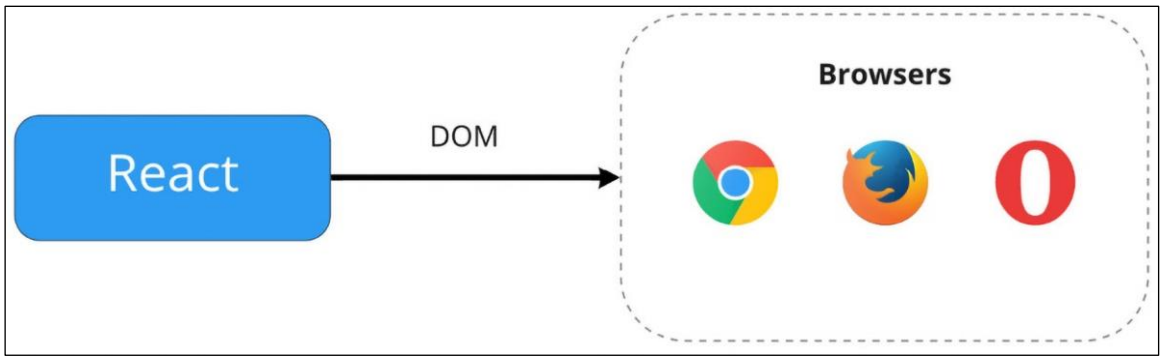
Chapter 14: Unit Testing in React

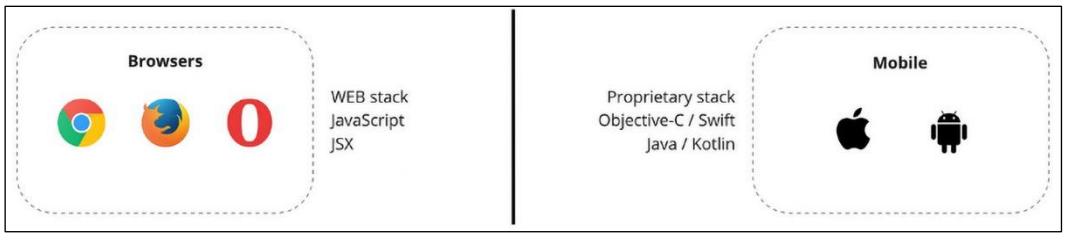


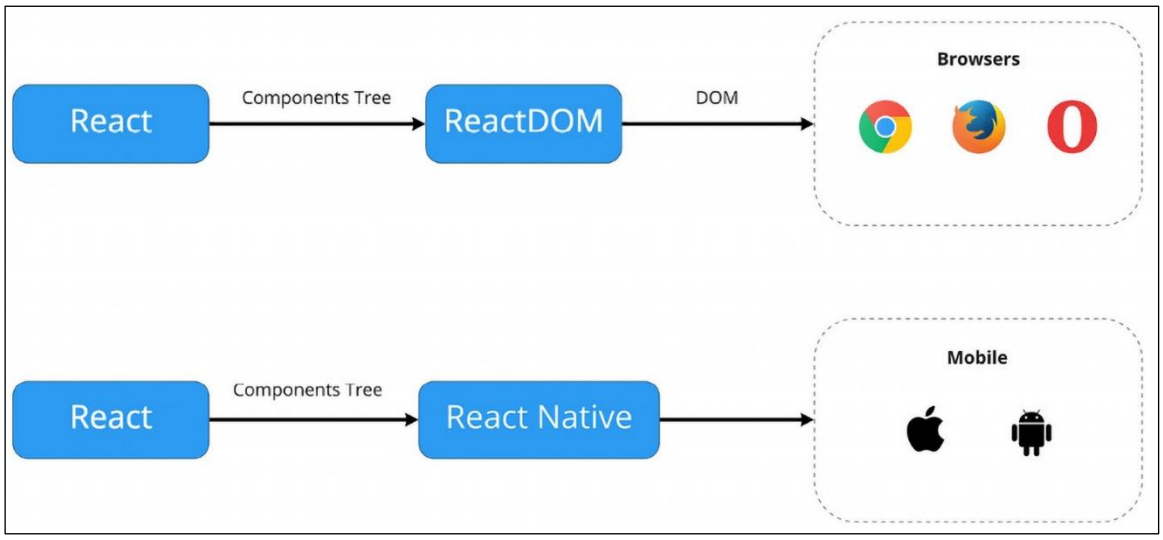
Chapter 15: Why React Native?

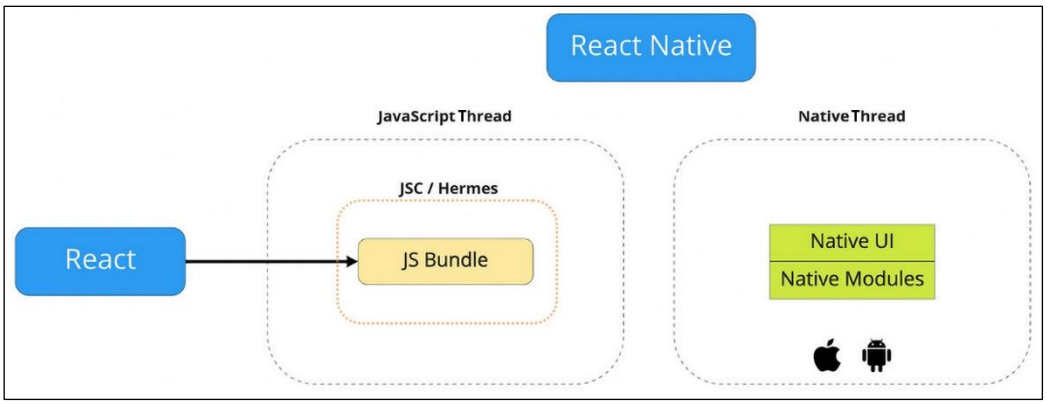


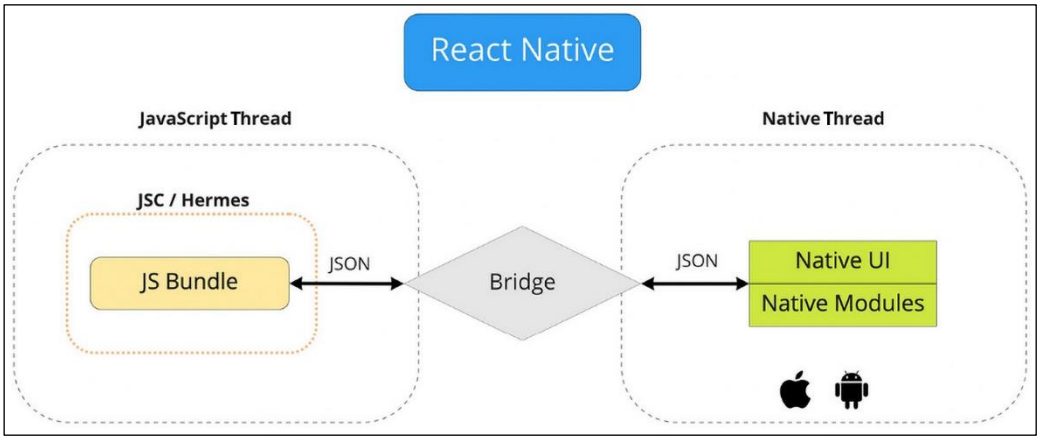
Chapter 16: React Native Under the Hood

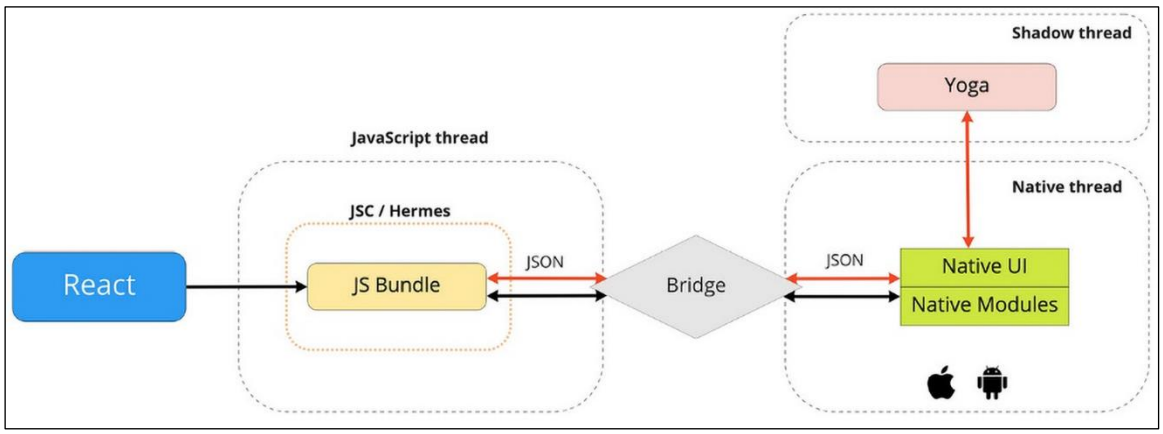


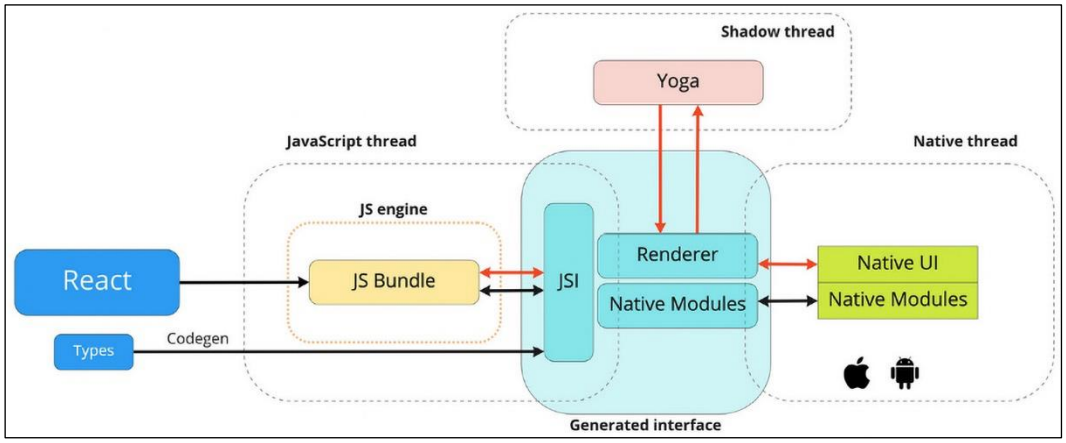




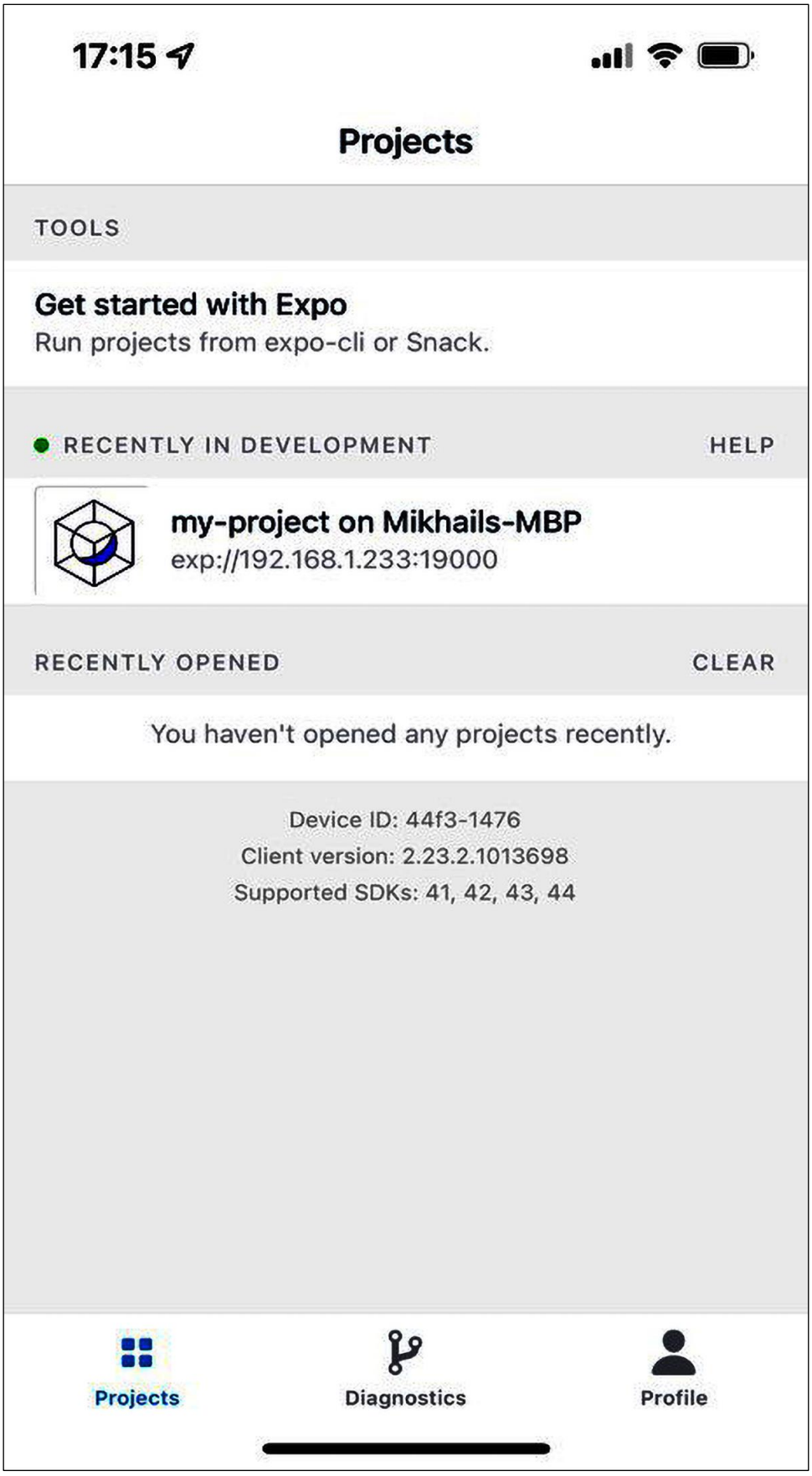


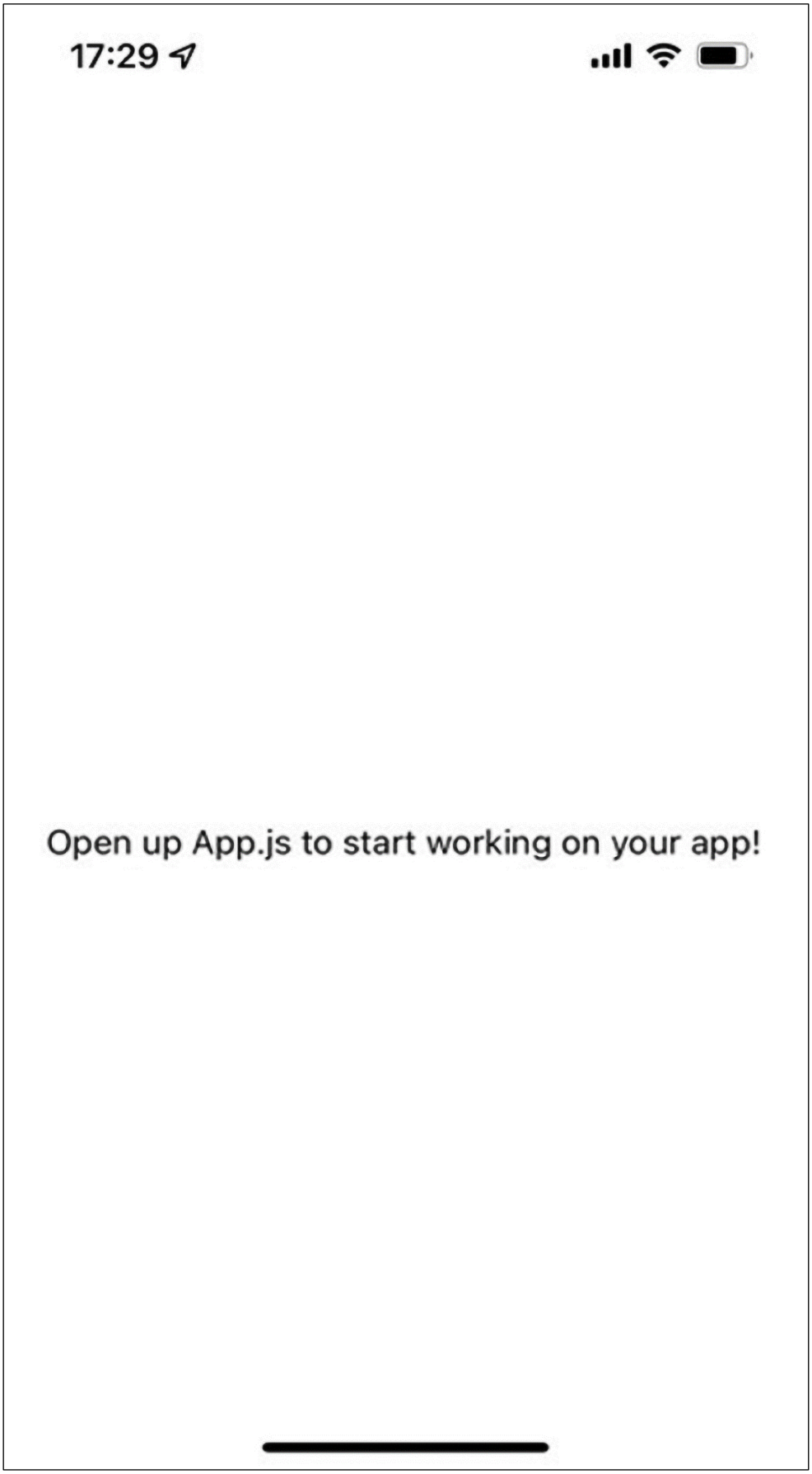

React Native
JavaScript Thread
Native Thread
JSC / Hermes
JS Bundle
JSON
Bridge
JSON
Native UI
Native Modules

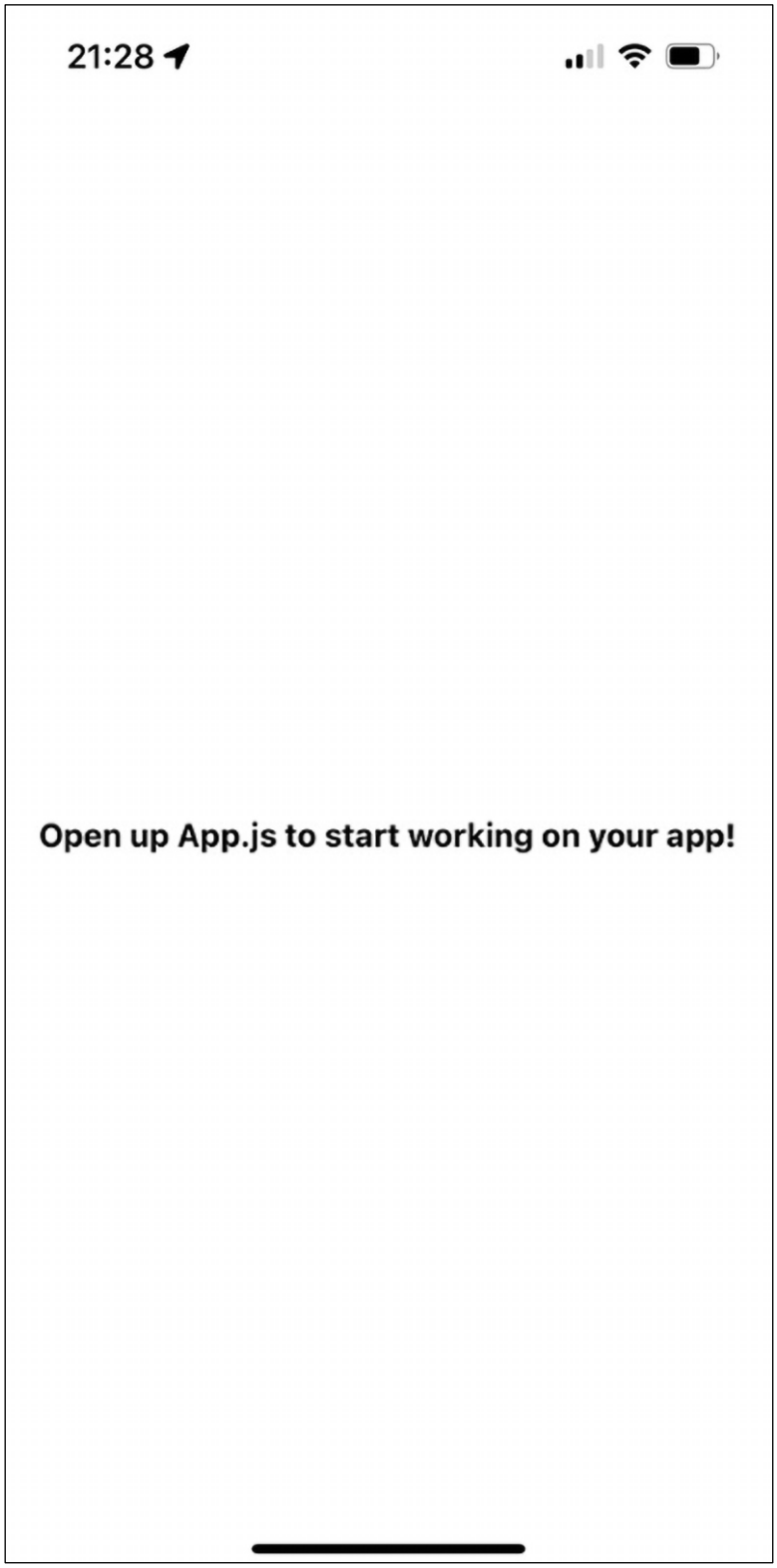

Shadow thread
Yoga
JavaScript thread
Native thread
JSC / Hermes
React
JS Bundle
JSON
Bridge
JSON
Native UI
Native Modules

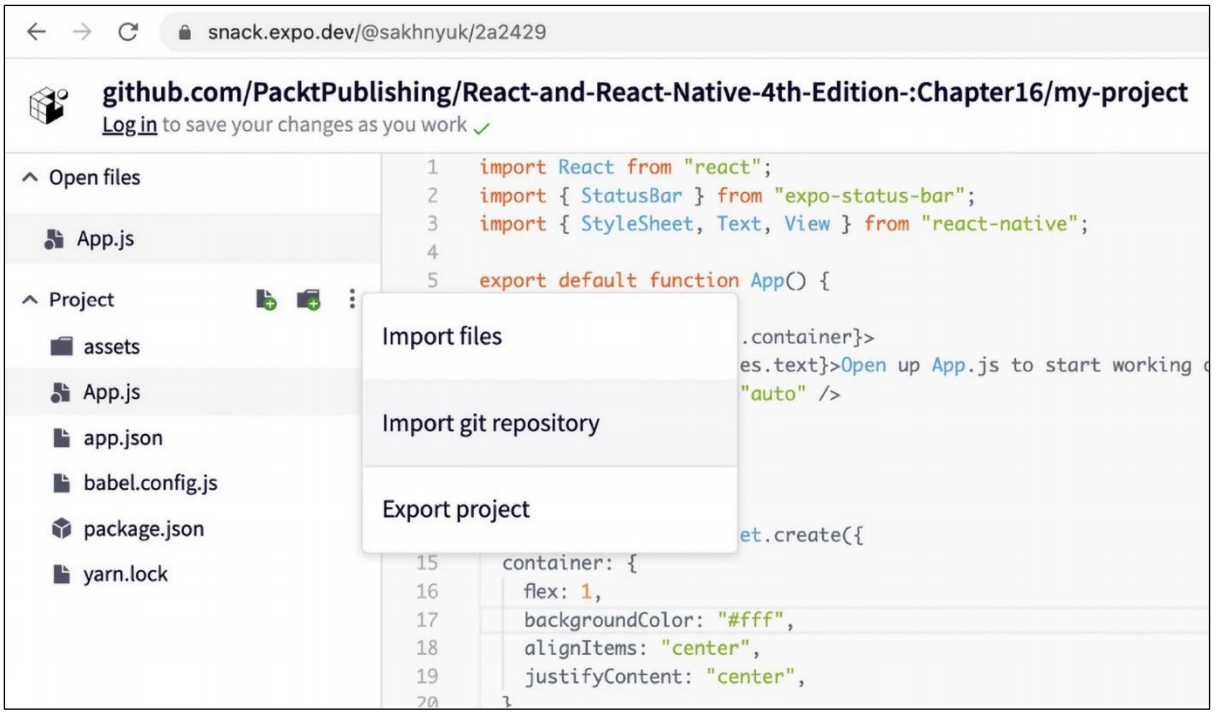

Shadow thread
Yoga
JavaScript thread
Native thread
JS engine
React
JS Bundle
JSI
Renderer
Native Modules
Native UI
Native Modules
Types
Codegen
Generated interface

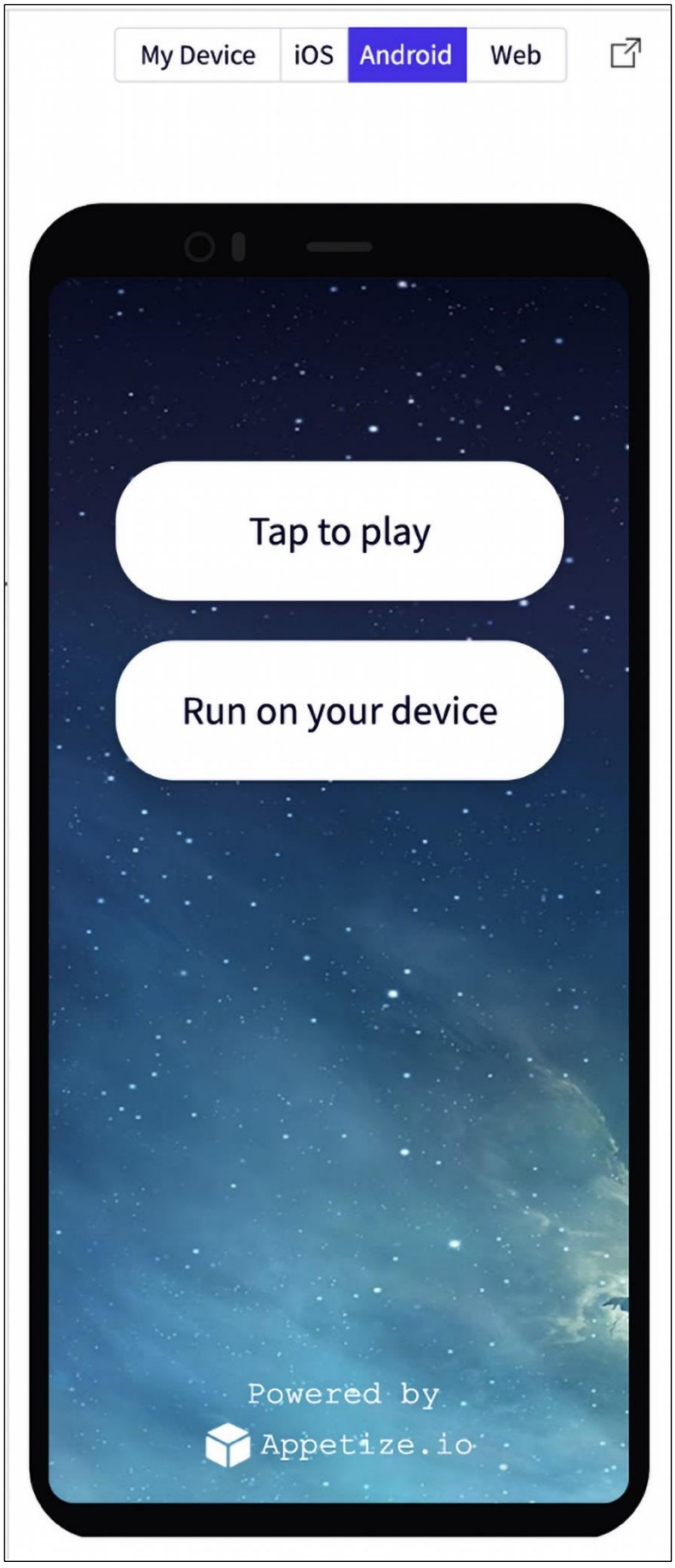
Chapter 17: Kick-Starting React Native Projects




17:29
Open up App.js to start working on your app!


21:28
Open up App.js to start working on your app!

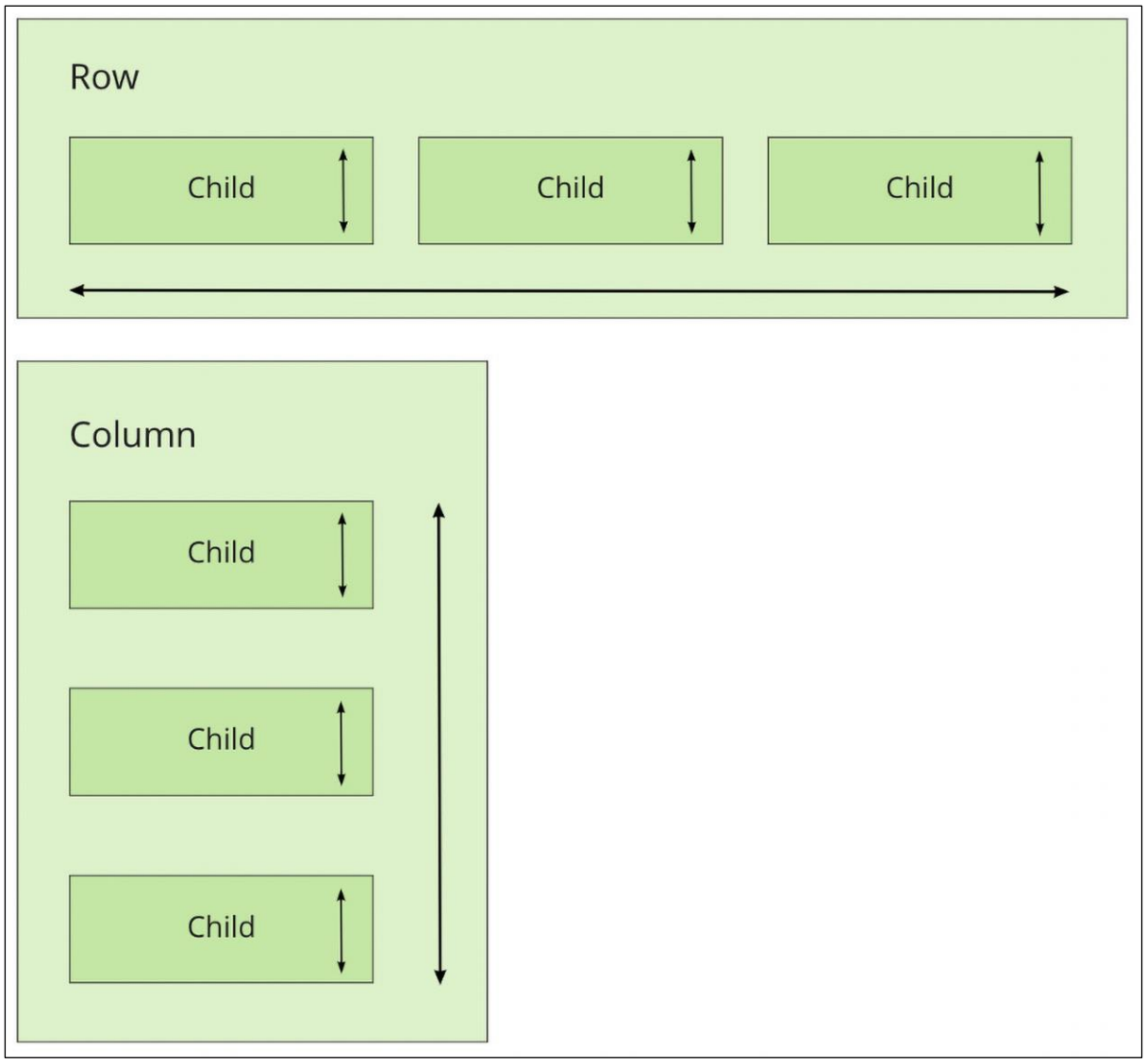

snack.expo.dev/@sakhnyuk/2a2429
github.com/PacktPublishing/React-and-React-Native-4th-Edition-:Chapter16/my-project
Log in to save your changes as you work
Open files
App.js
Project
assets
App.js
app.json
babel.config.js
package.json
yarn.lock
Import files
Import git repository
Export project
import React from "react";
import { StatusBar } from "expo-status-bar";
import { StyleSheet, Text, View } from "react-native";
export default function App() {
container: {
flex: 1,
backgroundColor: "#fff",
alignItems: "center",
justifyContent: "center",


My Device
iOS
Android
Web
Tap to play
Run on your device
Powered by
Appetize.io

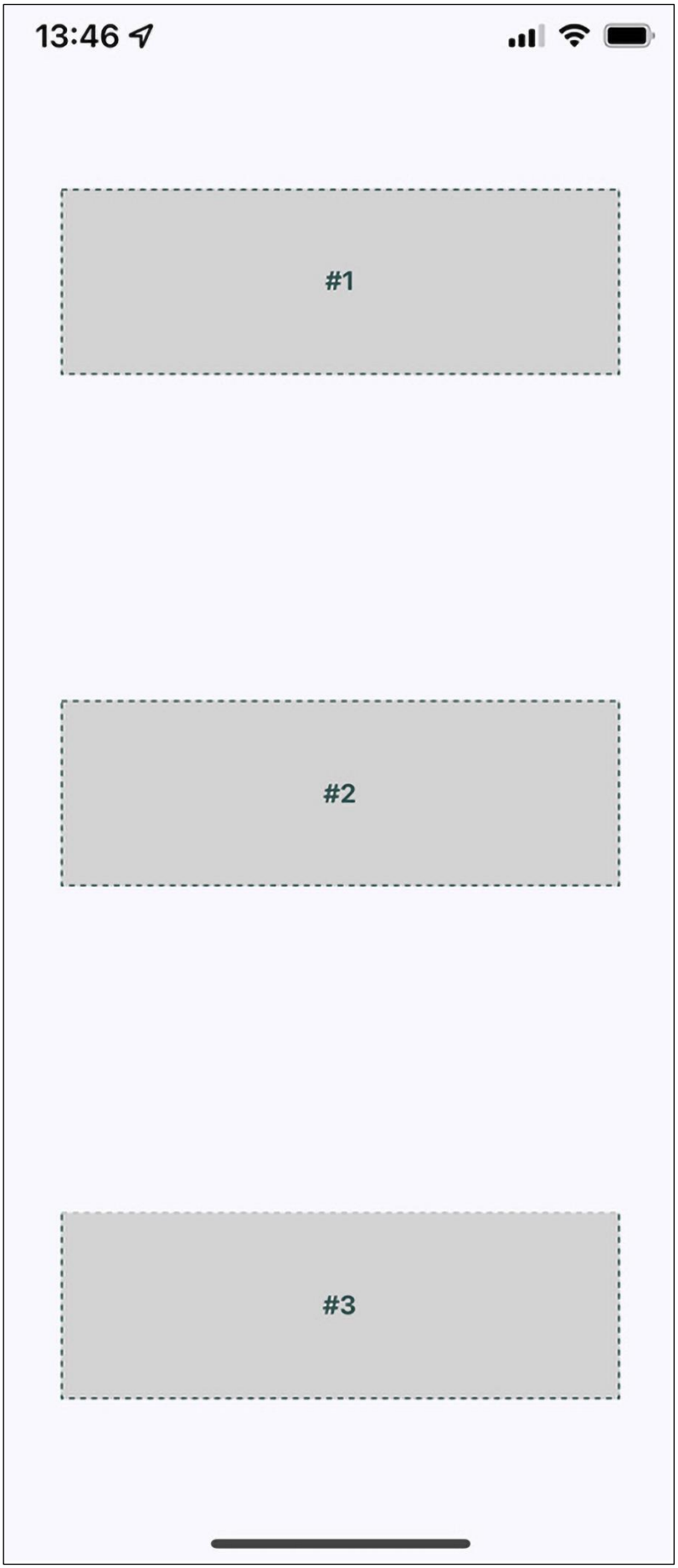
1:45
Open up App.tsx to start working on your app!

1:46
Open up App.tsx to start working on your app!

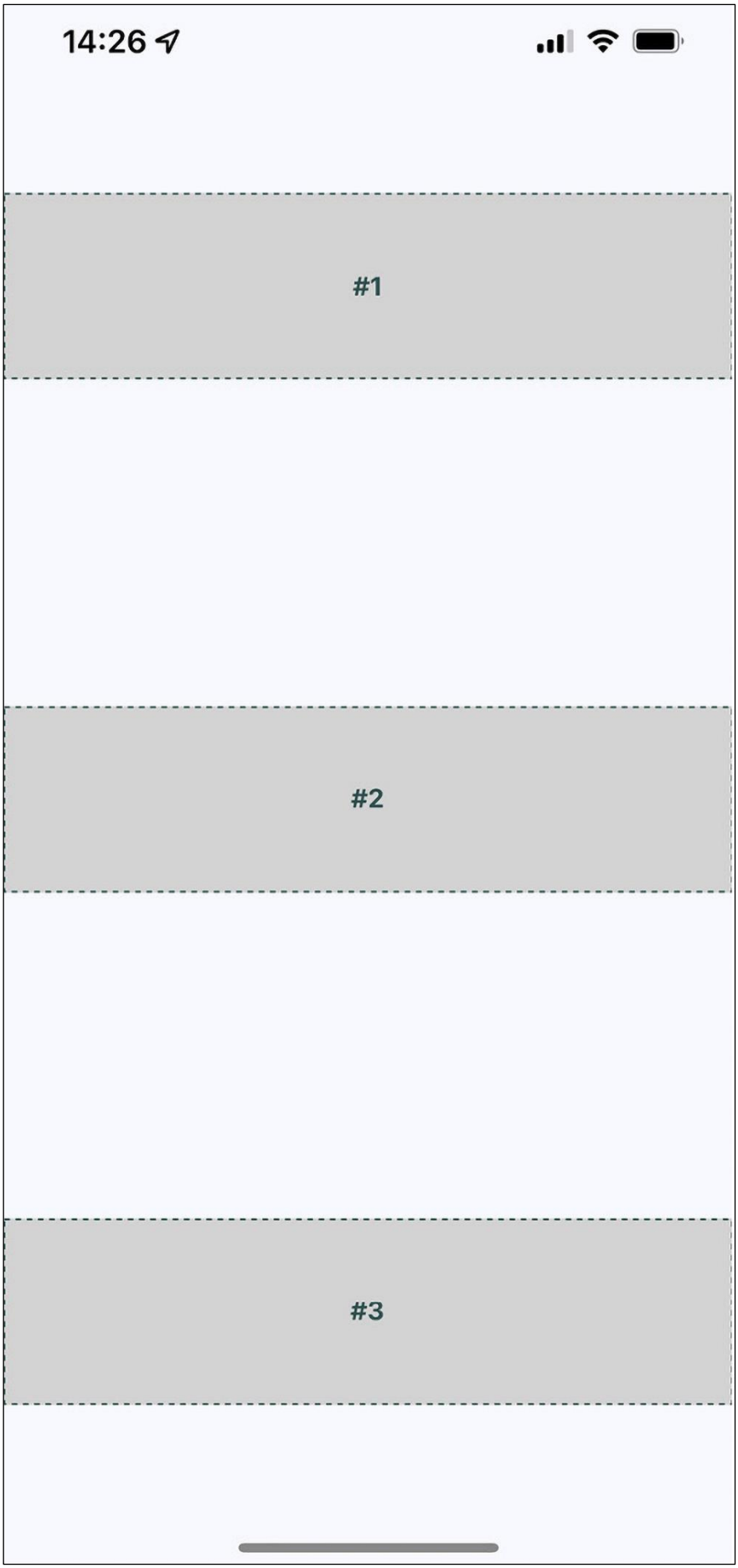
Chapter 18: Building Responsive Layouts with Flexbox

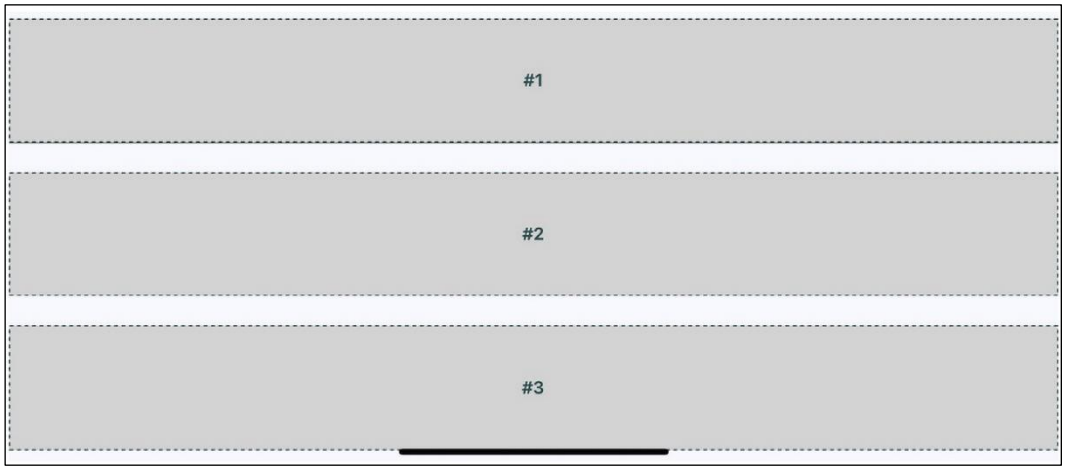


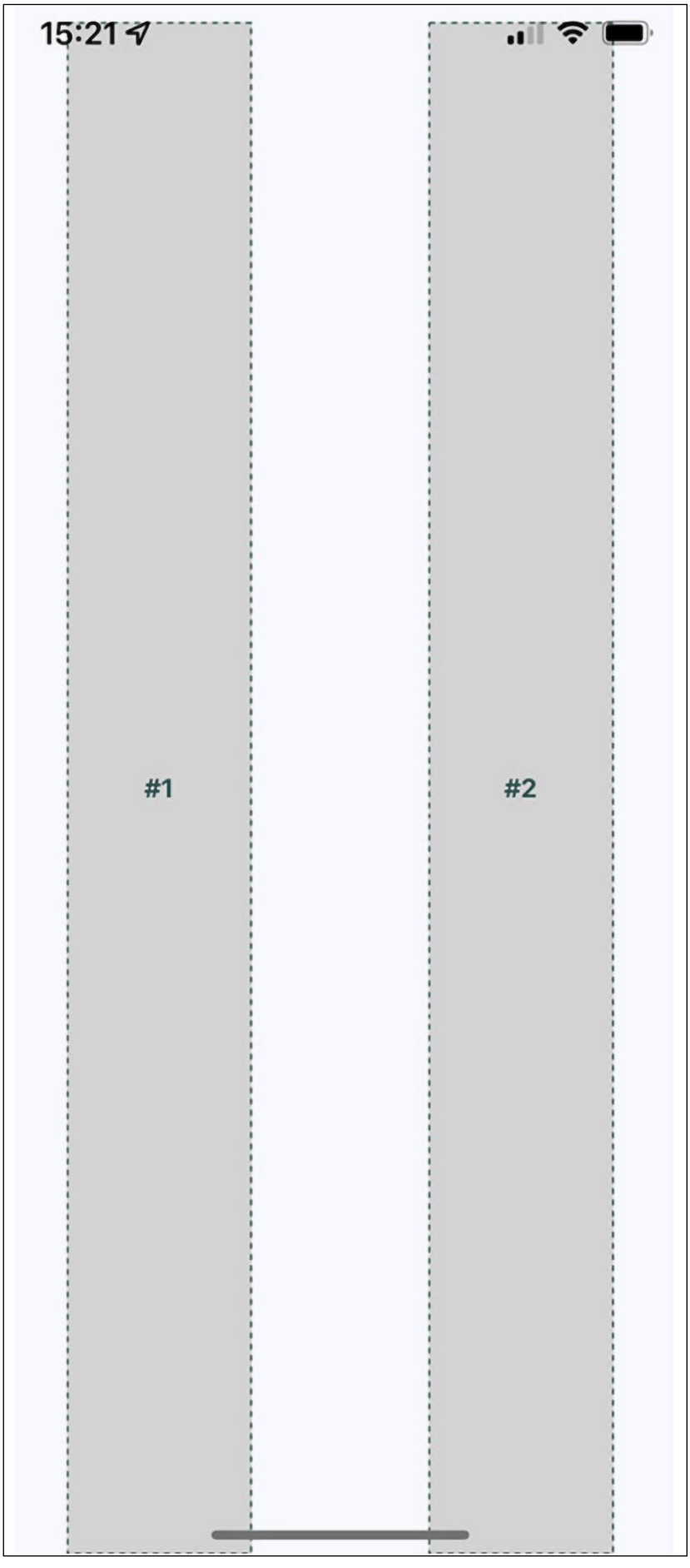
13:33
I'm in a box


13:46
#1
#2
#3

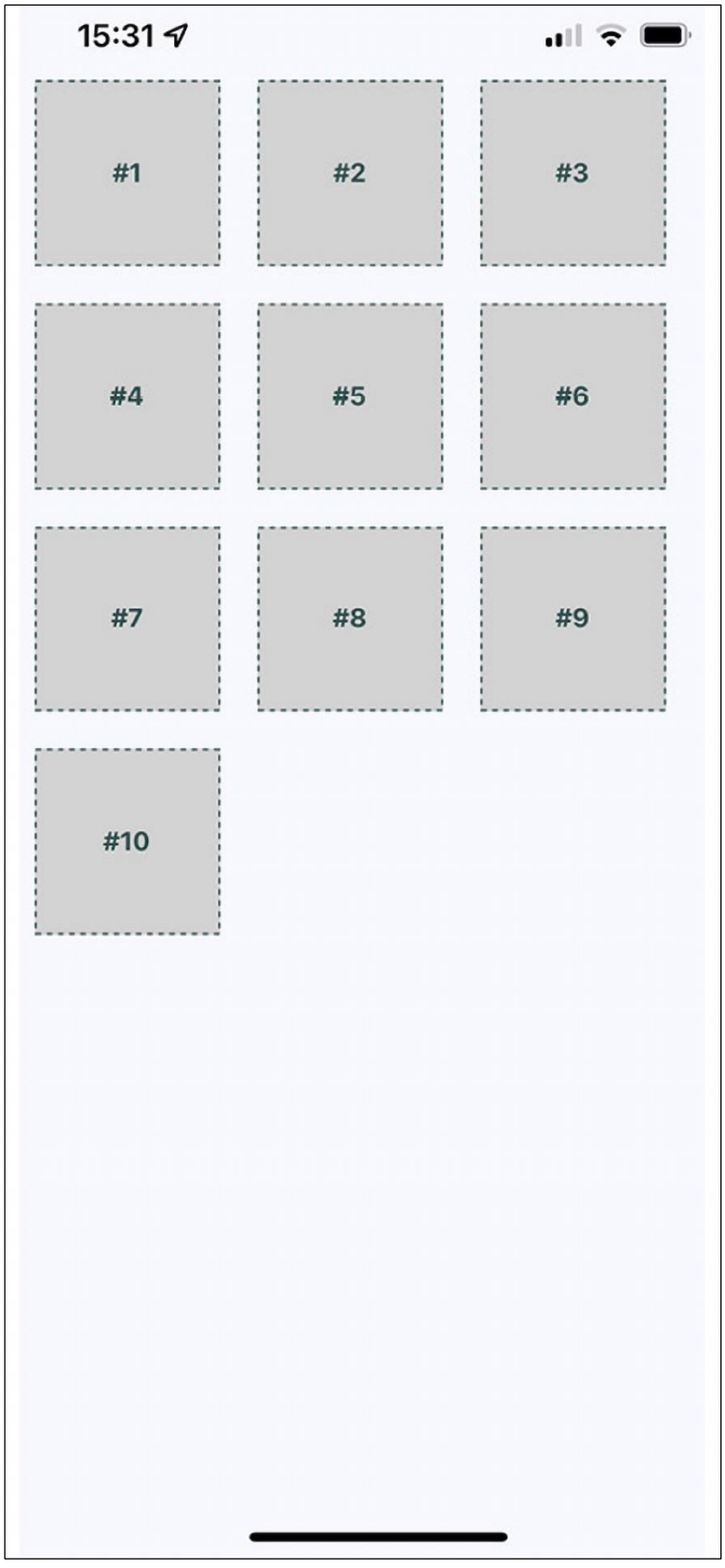
#1
#2
#3

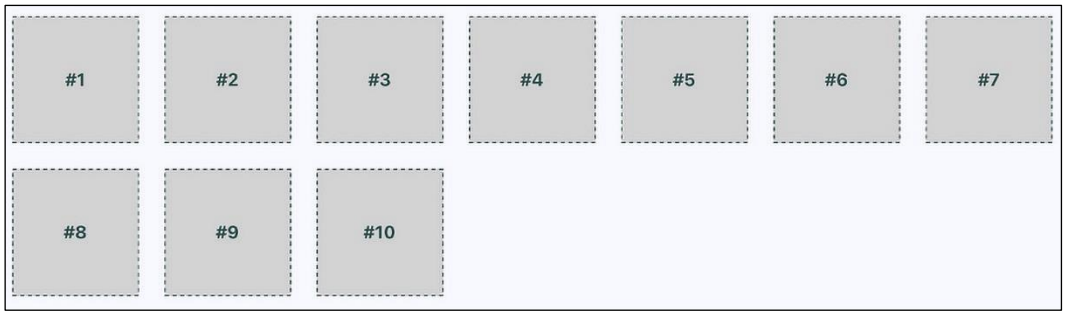

14:26
#1
#2
#3

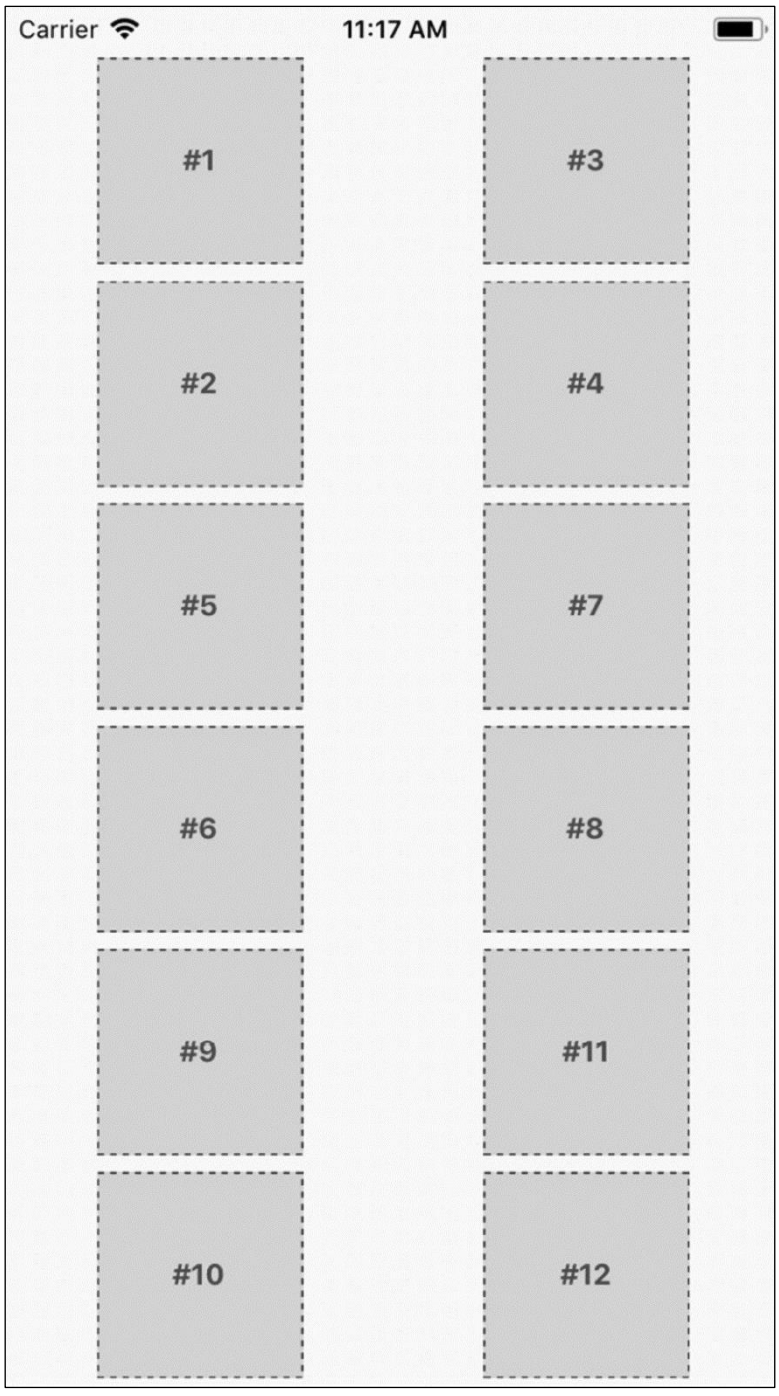

#1
#2
#3


15:21
#1
#2

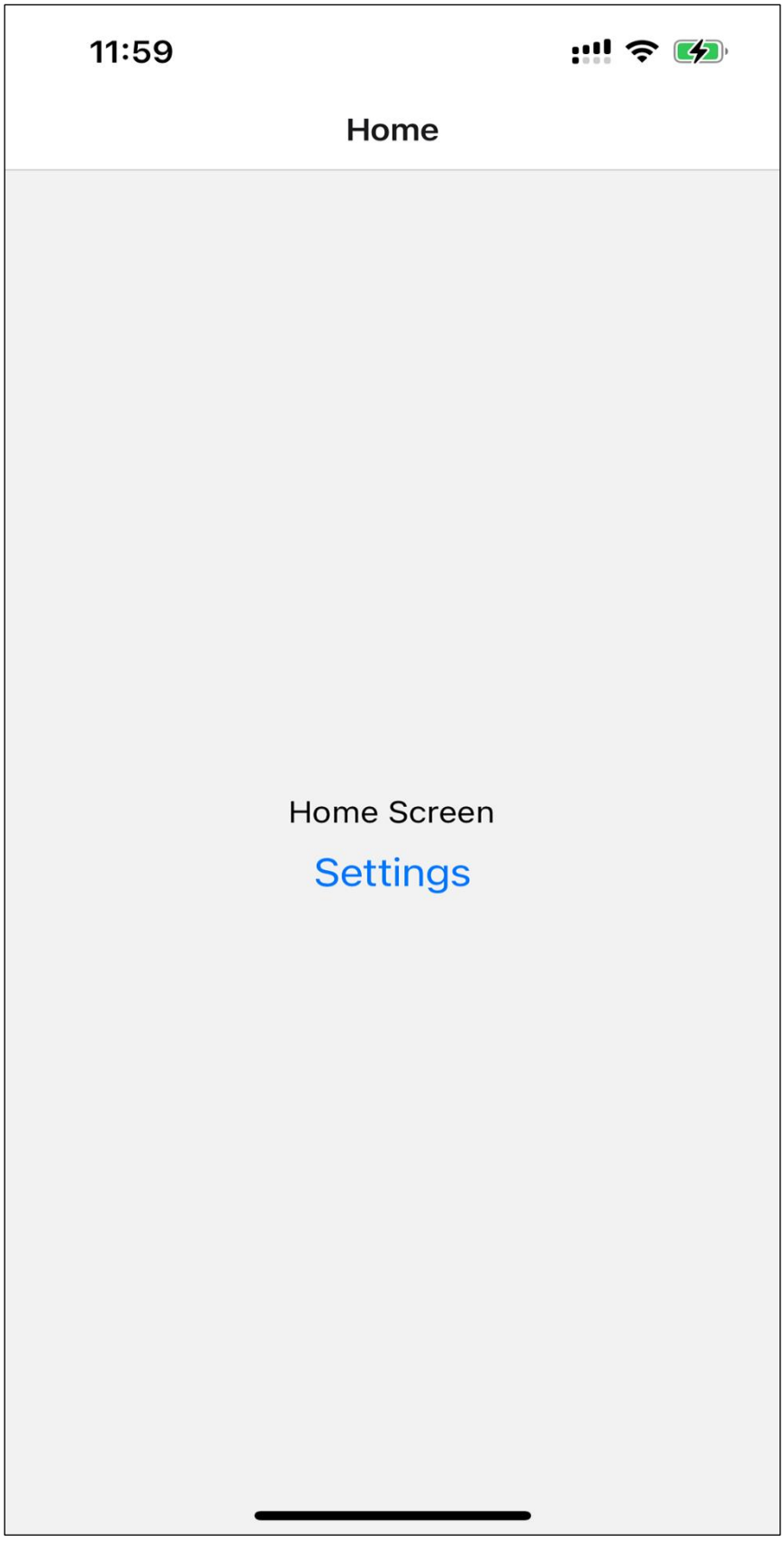
#1
#2

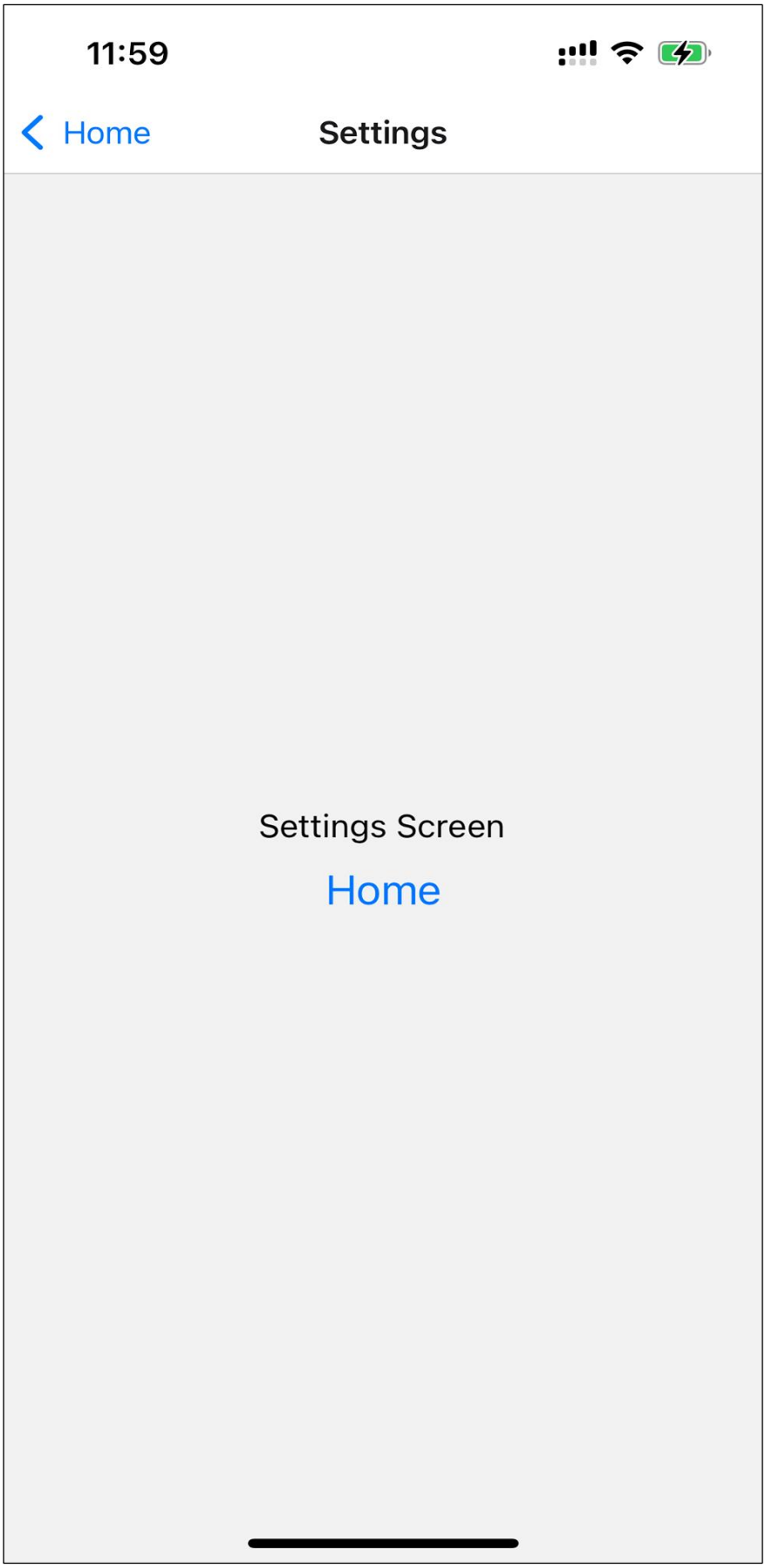

15:31
#1
#2
#3
#4
#5
#6
#7
#8
#9
#10

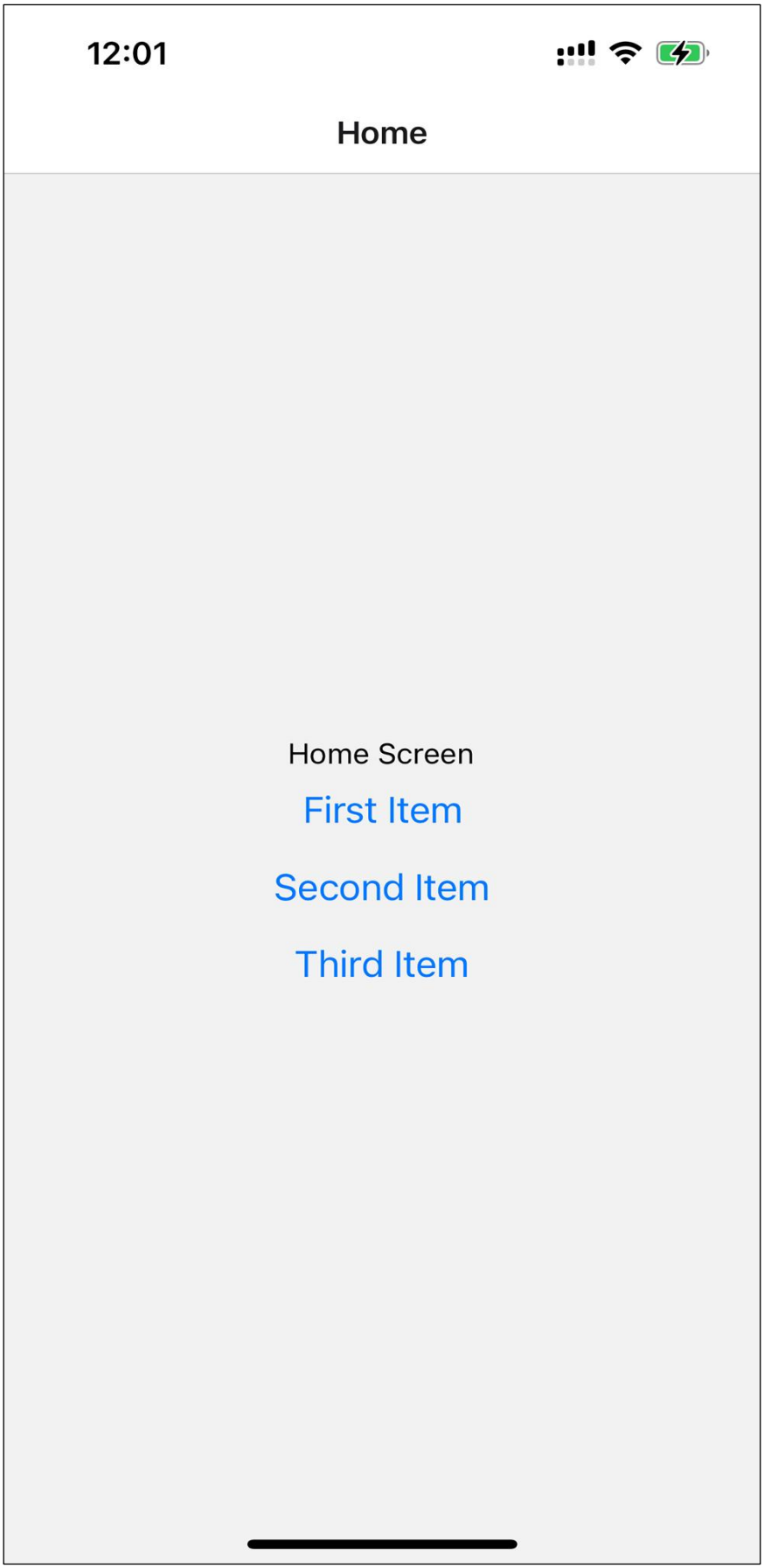

#1
#2
#3
#4
#5
#6
#7
#8
#9
#10

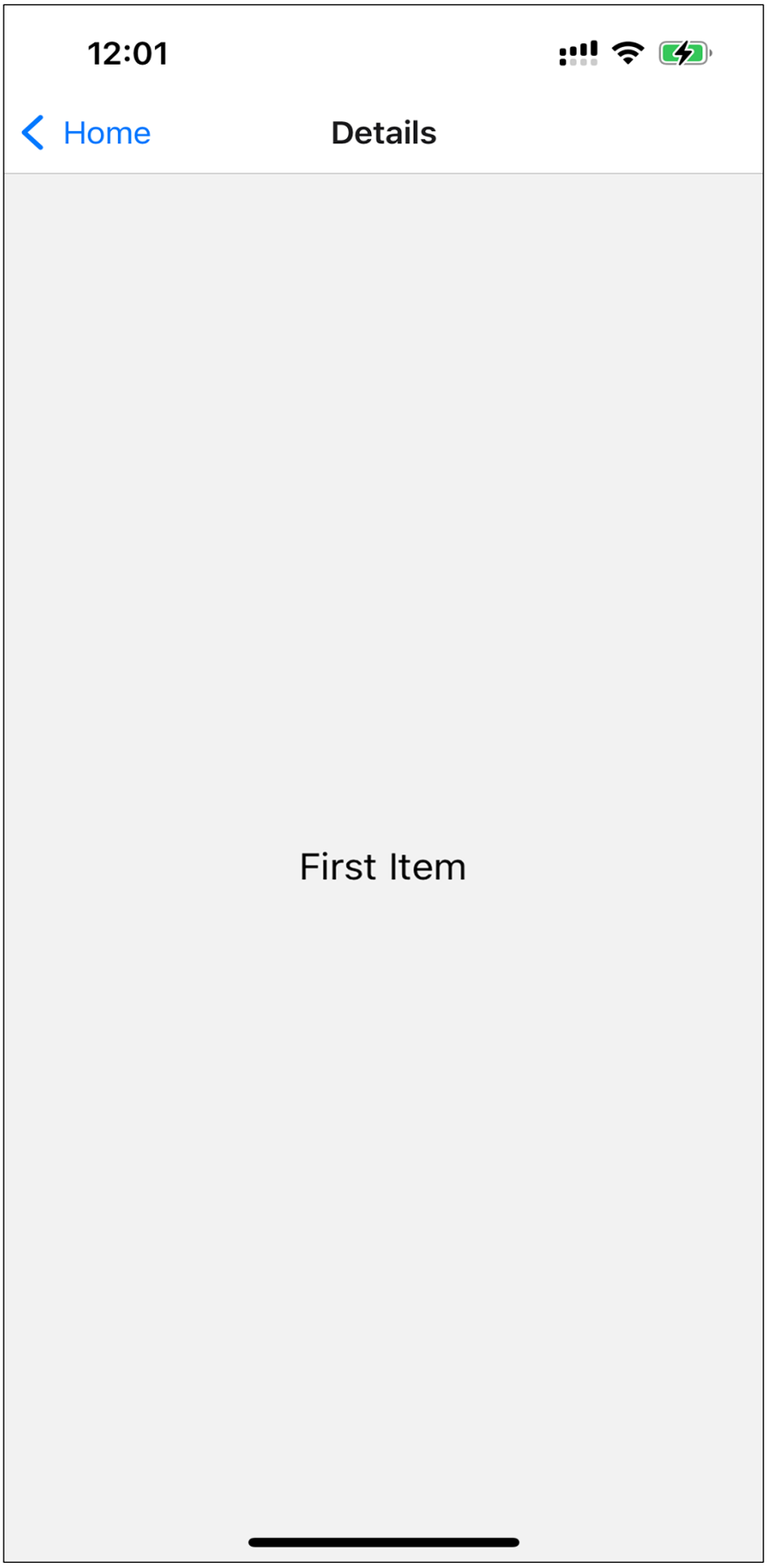

Carrier
11:17 AM
#1
#3
#2
#4
#5
#7
#6
#8
#9
#11
#10
#12

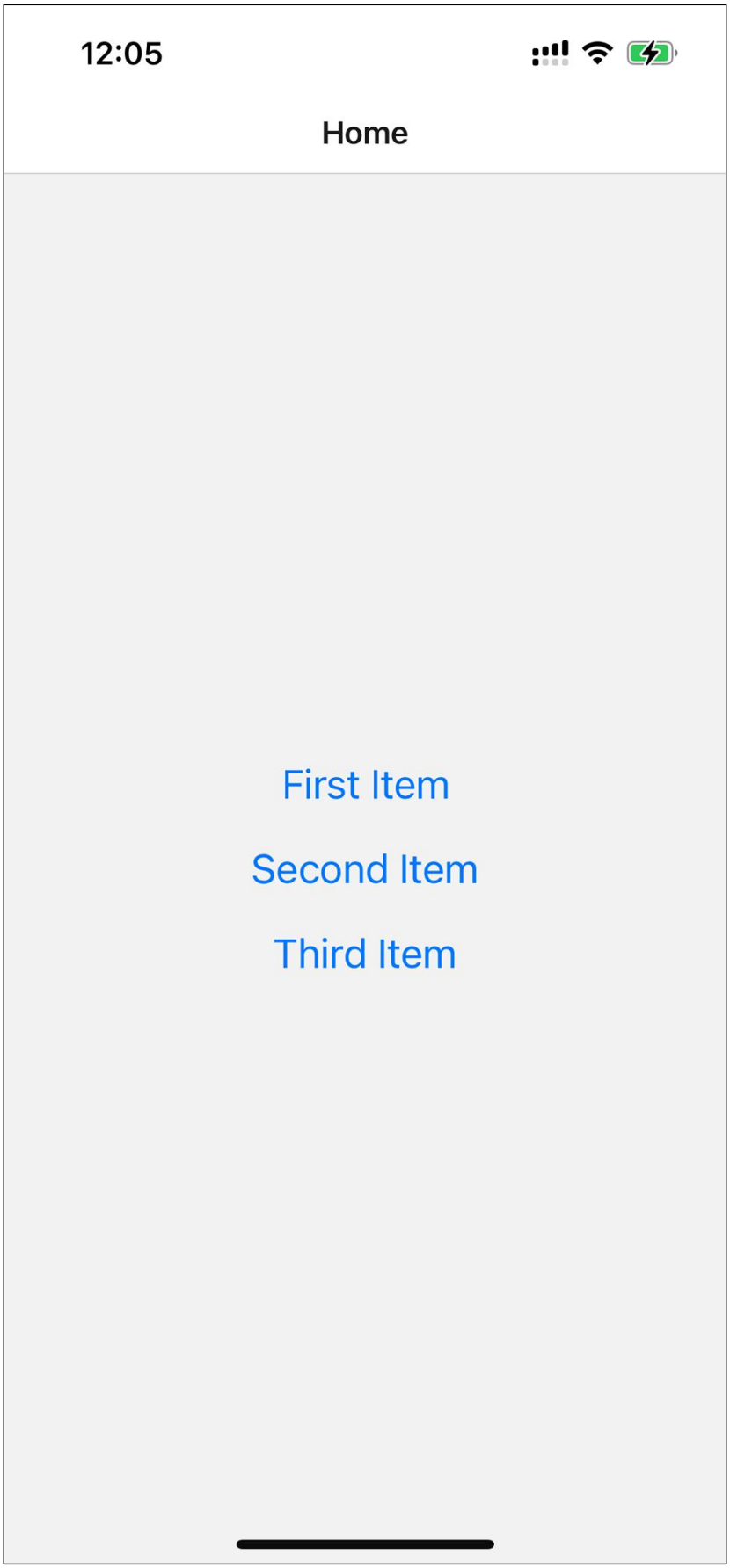
Chapter 19: Navigating between Screens

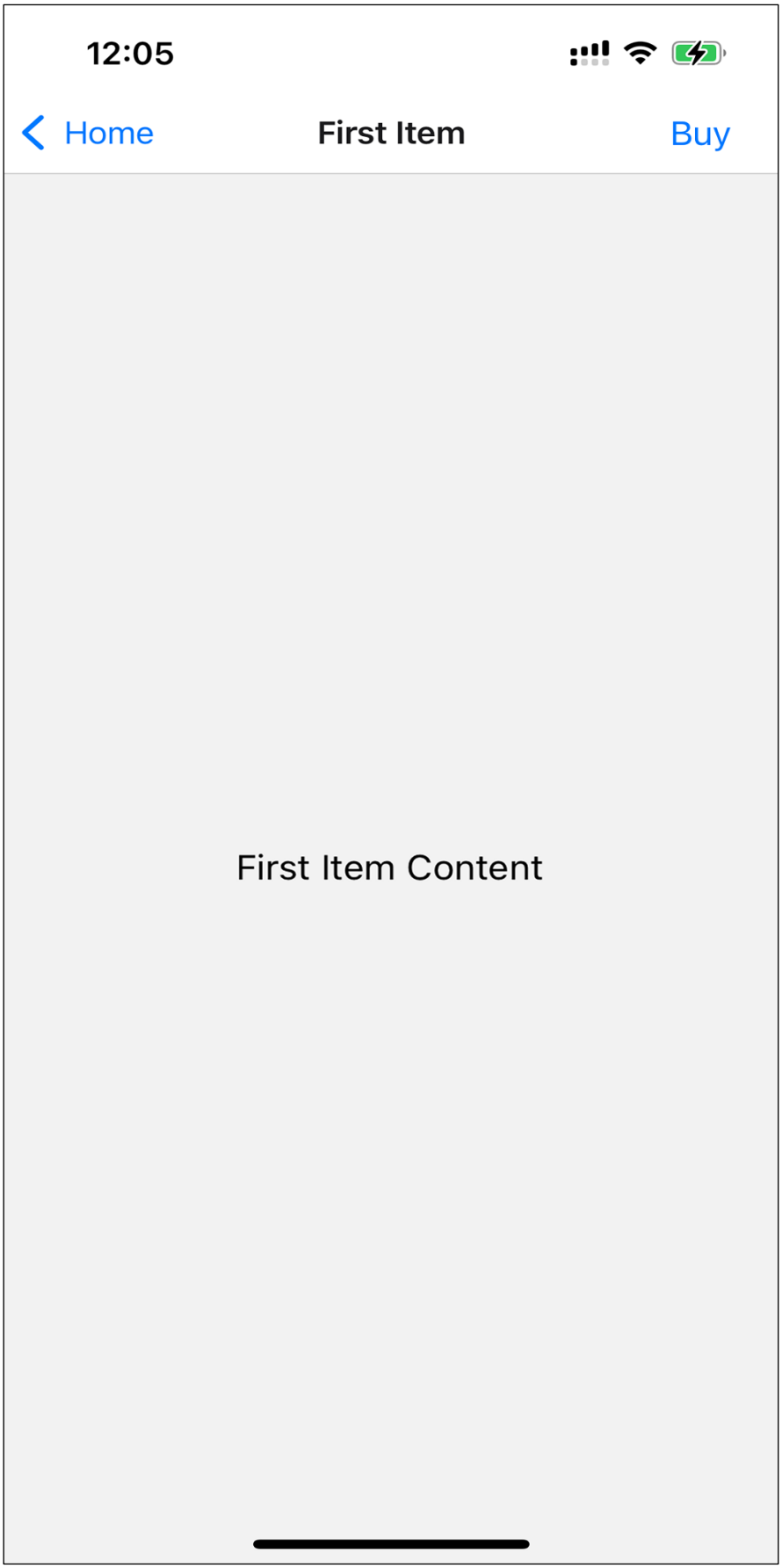


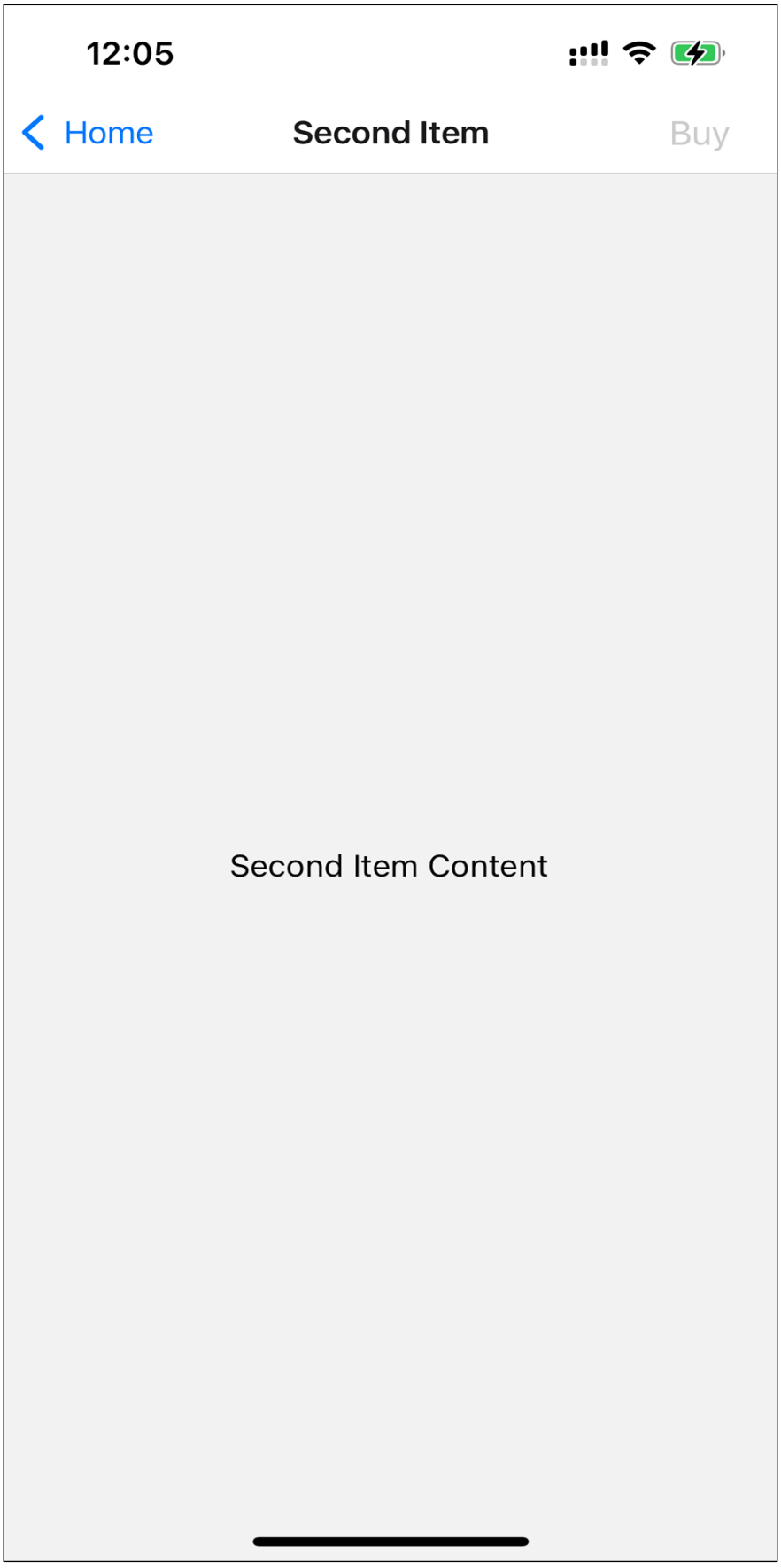

11:59
Home
Settings
Settings Screen
Home

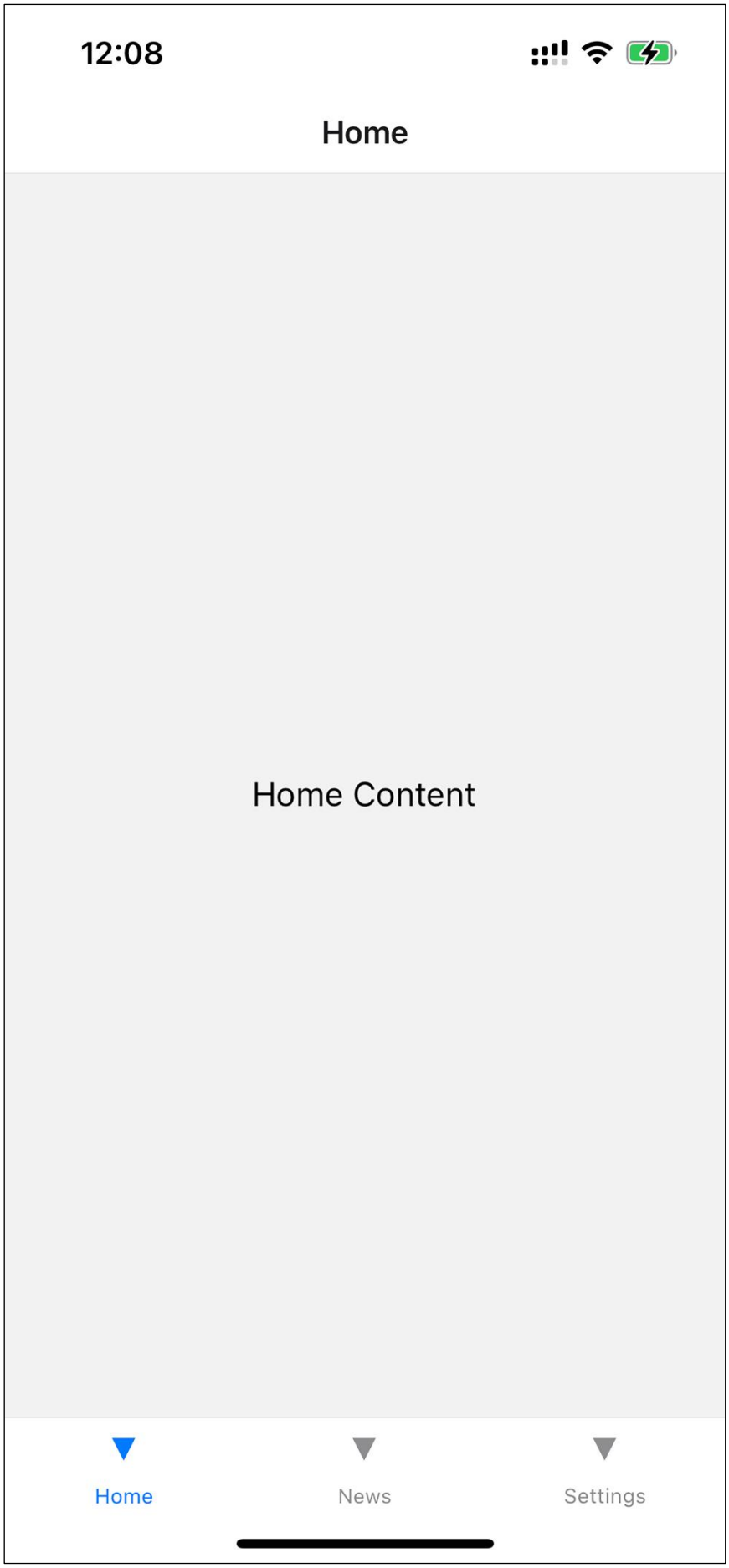

12:01
Home
Home Screen
First Item
Second Item
Third Item


12:01
Home
Details
First Item


12:05
Home
First Item
Second Item
Third Item

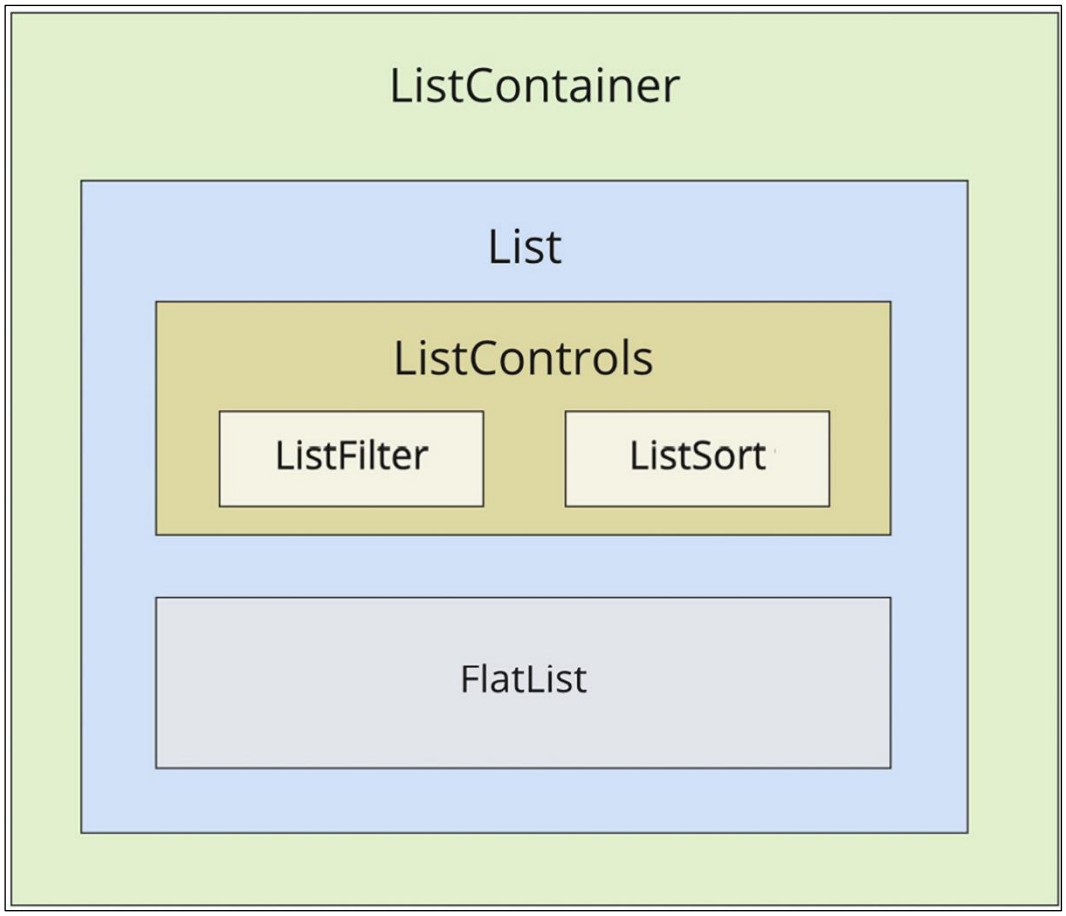

12:05
Home
First Item
Buy
First Item Content

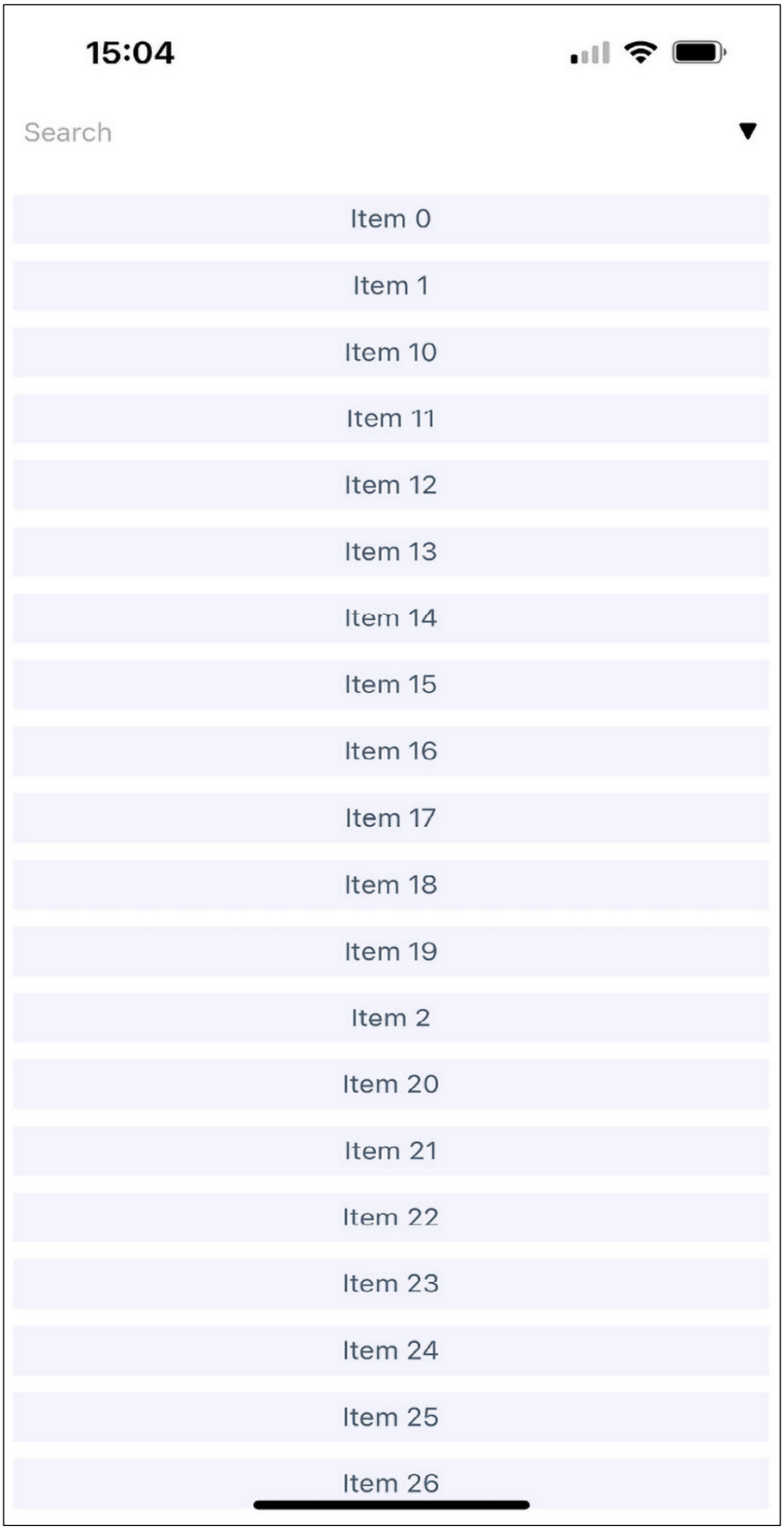

12:05
Home
Second Item
Buy
Second Item Content

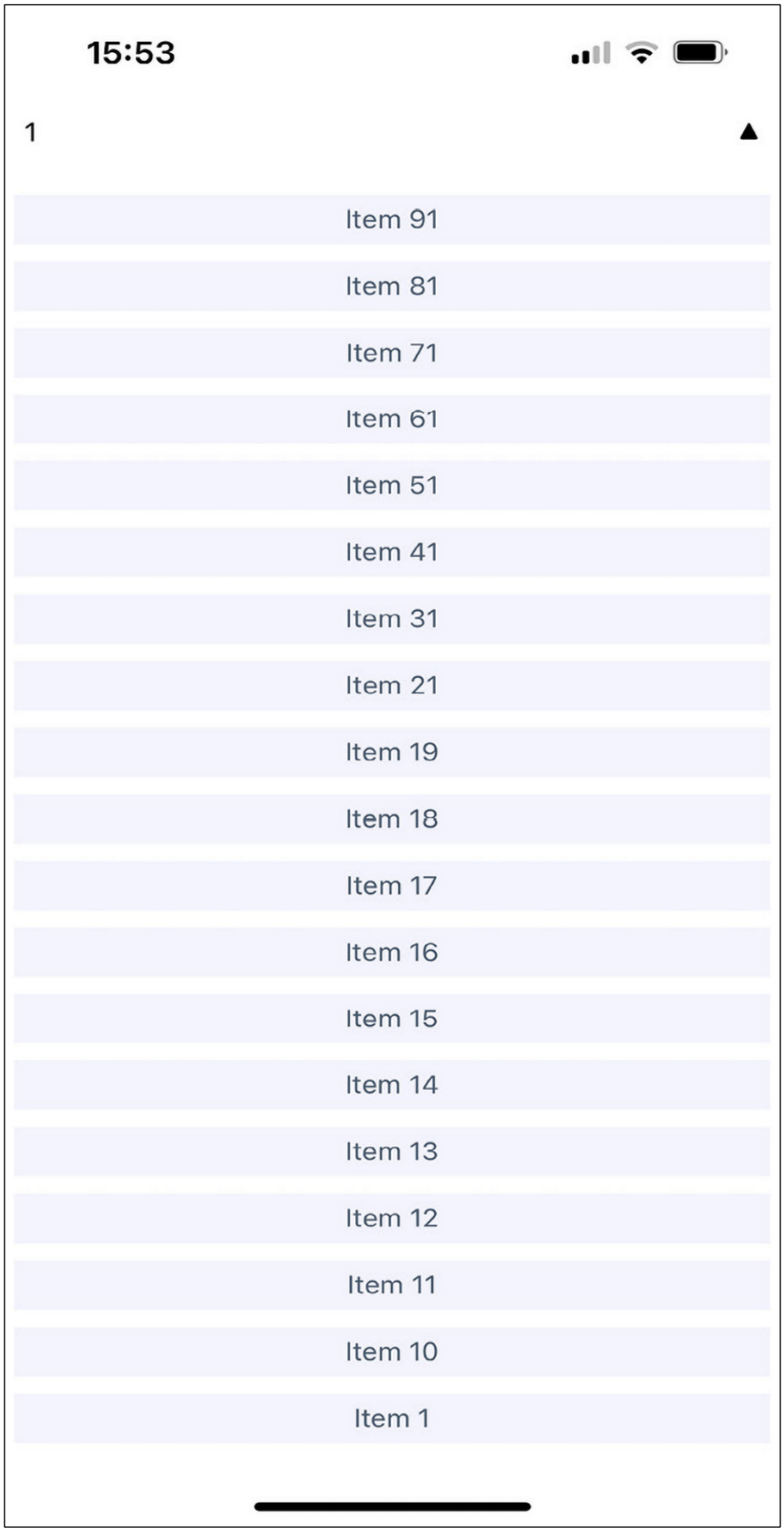

12:08
Home
Home Content
Home
News
Settings

Home
News
Settings

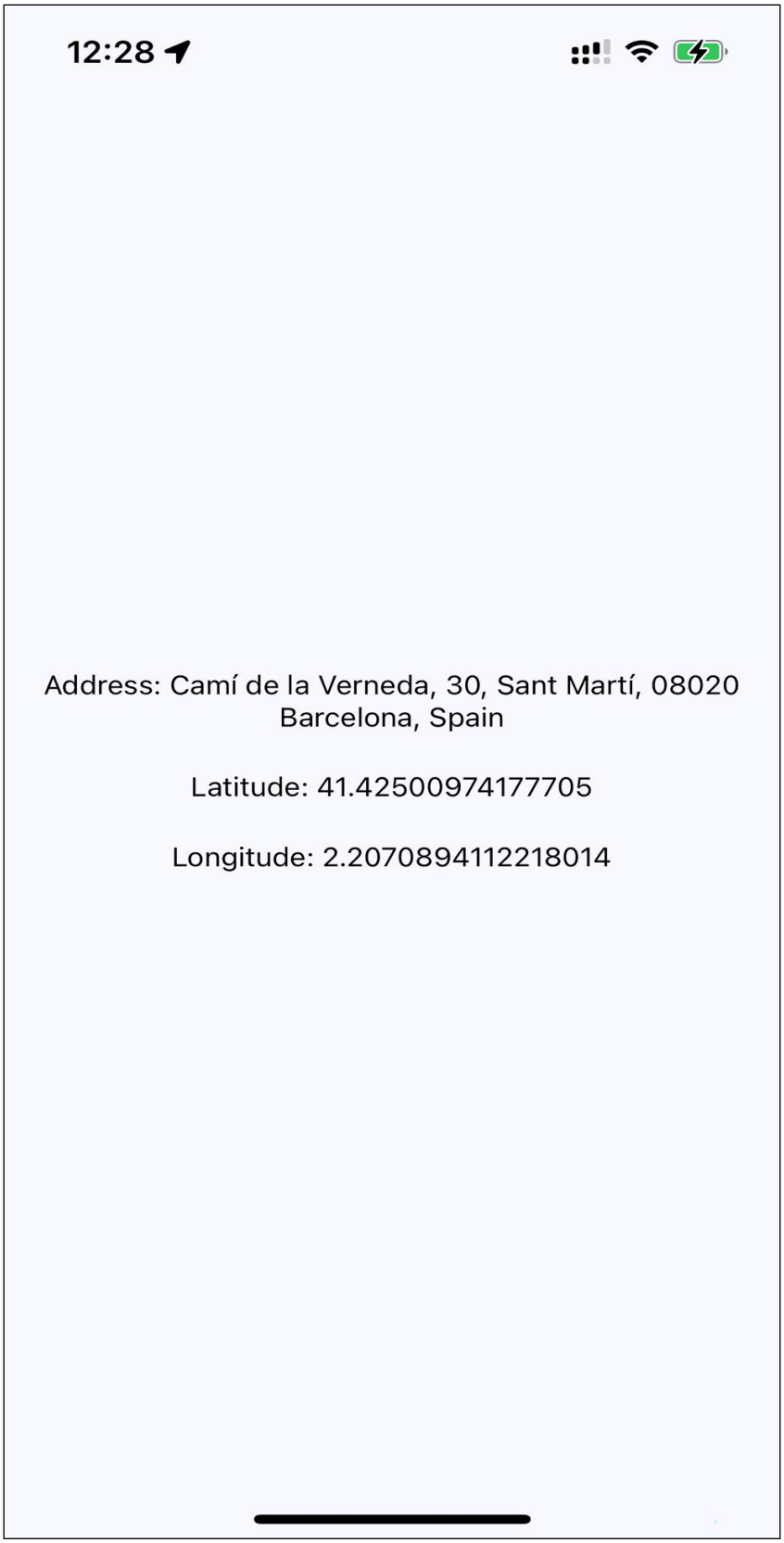
Chapter 20: Rendering Item Lists

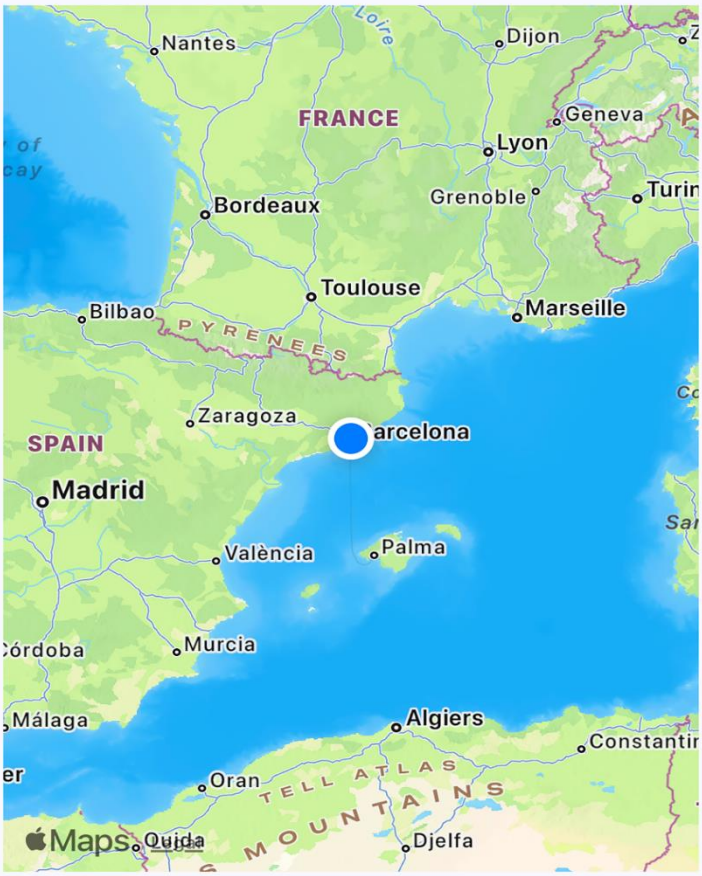

ListContainer
List
ListControls
ListFilter
ListSort
FlatList

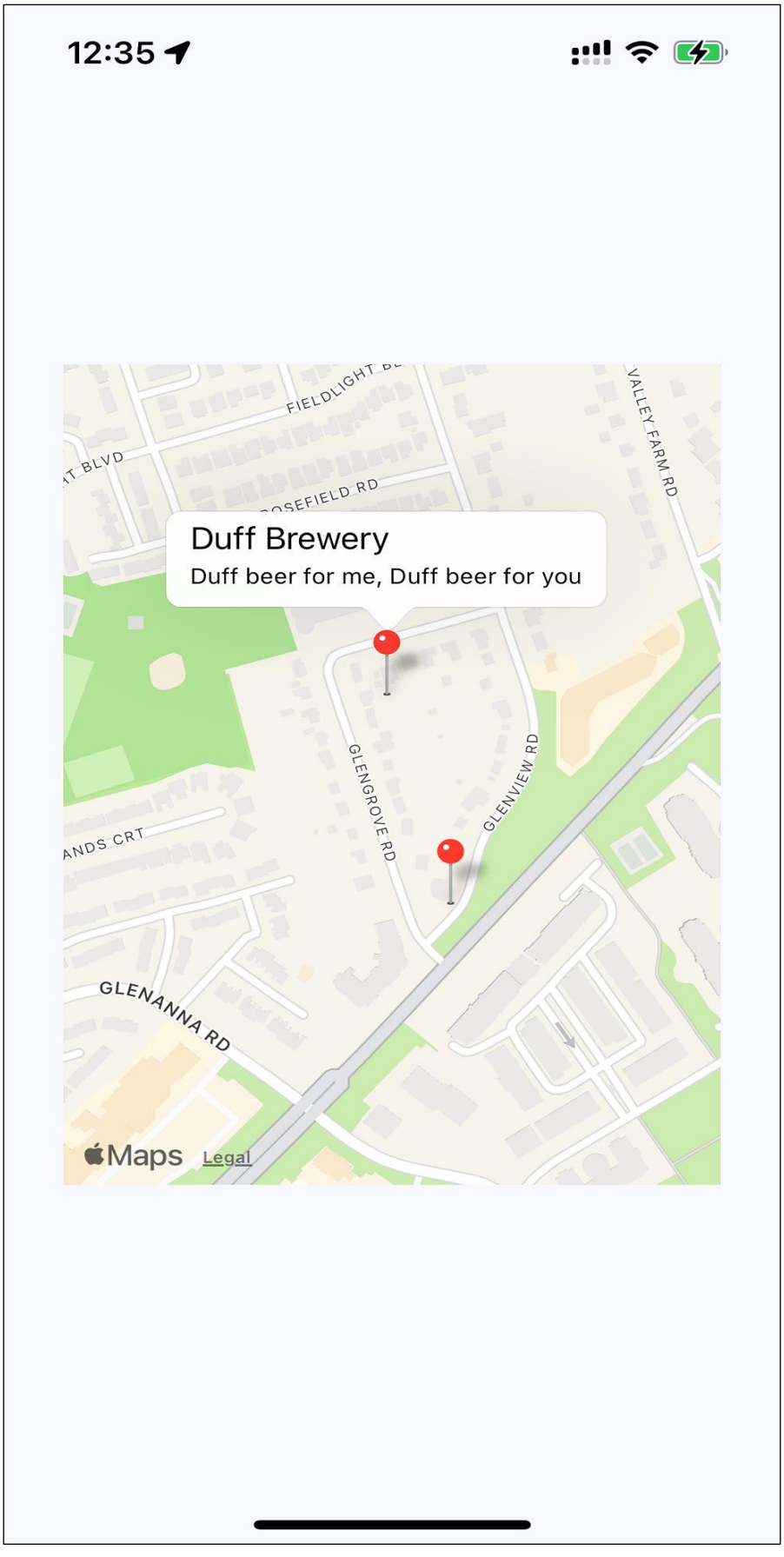

15:04
Search
Item 0
Item 1
Item 10
Item 11
Item 12
Item 13
Item 14
Item 15
Item 16
Item 17
Item 18
Item 19
Item 2
Item 20
Item 21
Item 22
Item 23
Item 24
Item 25
Item 26


15:53
1
Item 91
Item 81
Item 71
Item 61
Item 51
Item 41
Item 31
Item 21
Item 19
Item 18
Item 17
Item 16
Item 15
Item 14
Item 13
Item 12
Item 11
Item 10
Item 1

Chapter 21: Geolocation and Maps

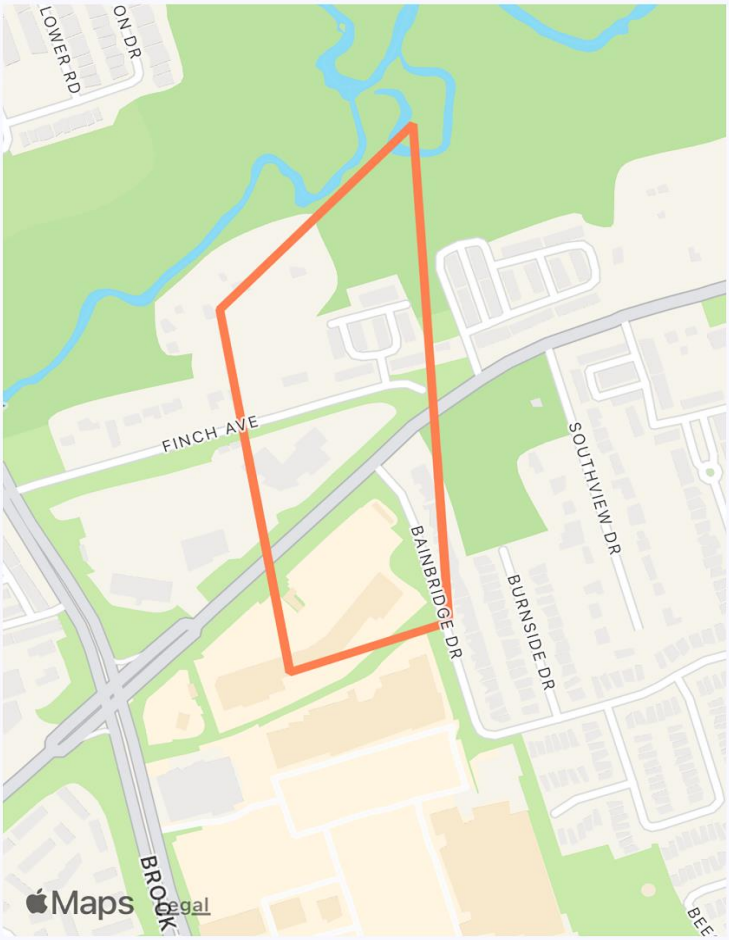



Nantes
Loire
Dijon
FRANCE
Geneva
Lyon
Grenoble
Bordeaux
Toulouse
Marseille
Bilbao
PYRENEES
Zaragoza
SPAIN
Madrid
València
Palma
Murcia
Algiers
Málaga
Oran
TELL ATLAS
MOUNTAINS
Djelfa
Maps


12:35
FIELDLIGHT
VALLEY FARM RD
Duff Brewery
Duff beer for me, Duff beer for you
GLENGROVE RD
GLENVIEW RD
GLENANNA RD
Maps
Legal

12:37

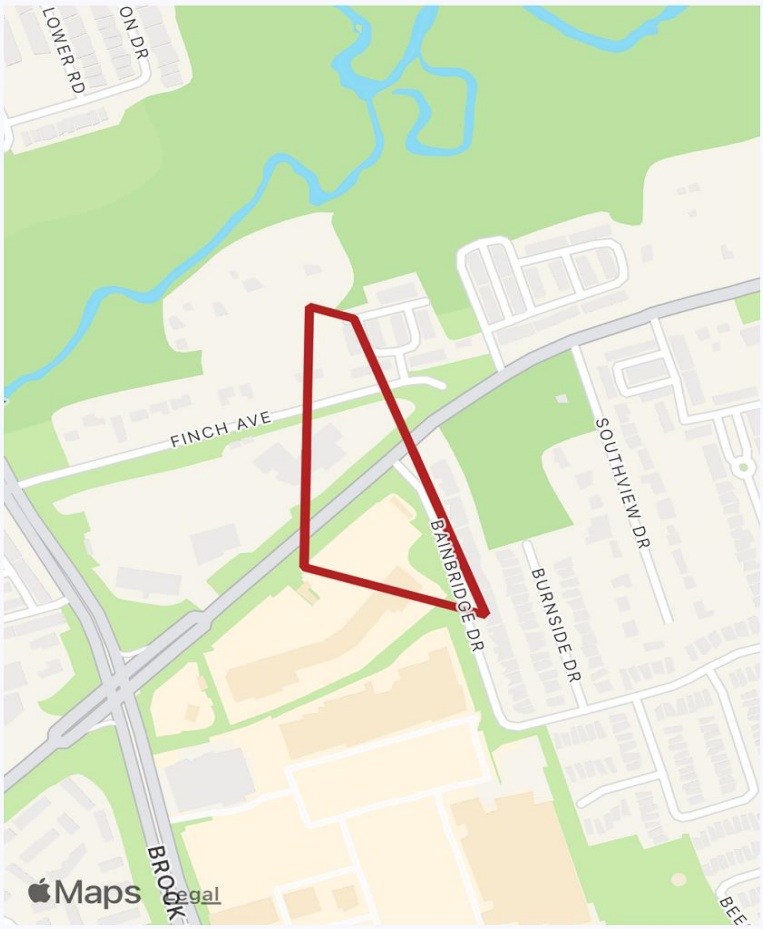
IPA Fans
Stout Fans



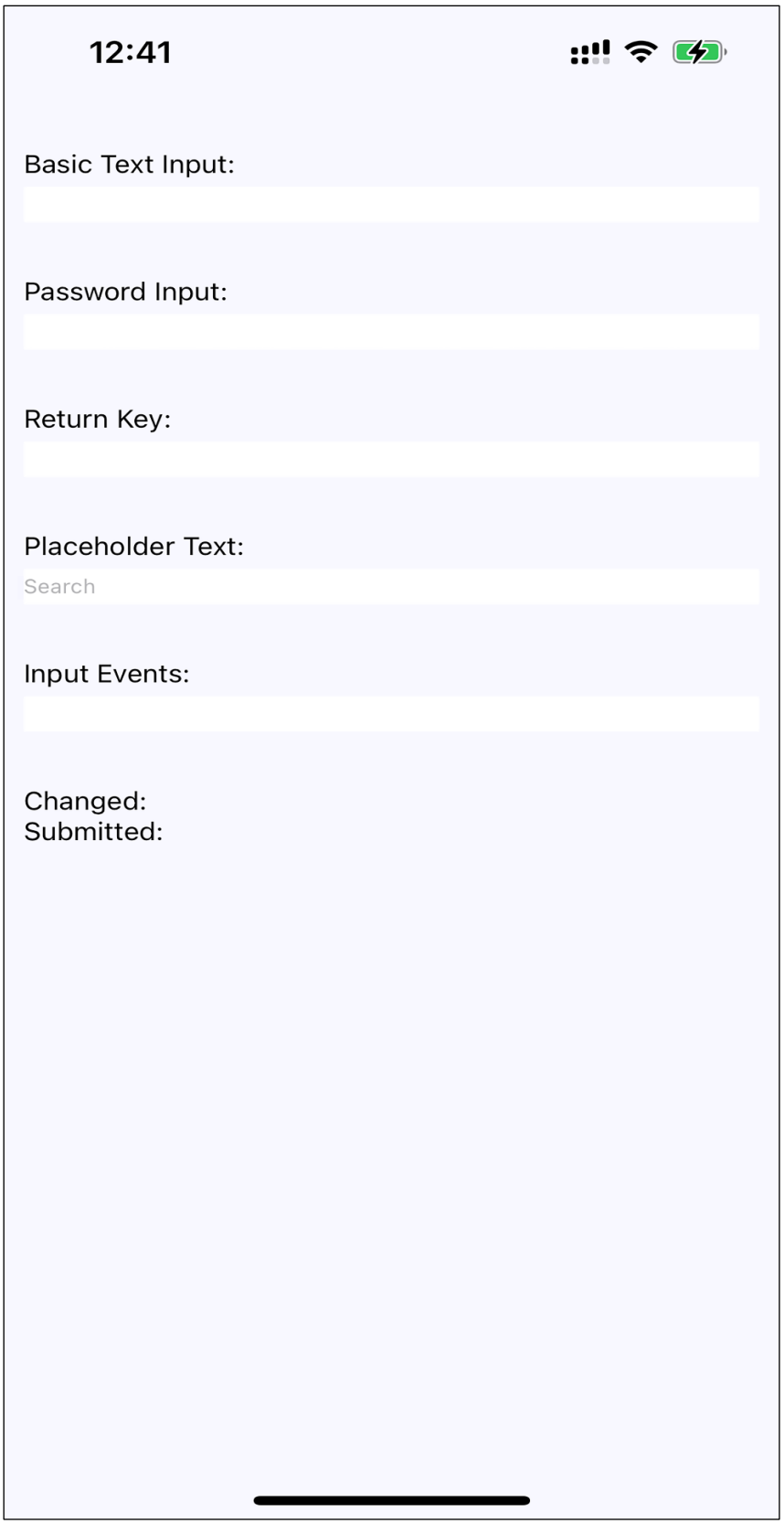
12:37

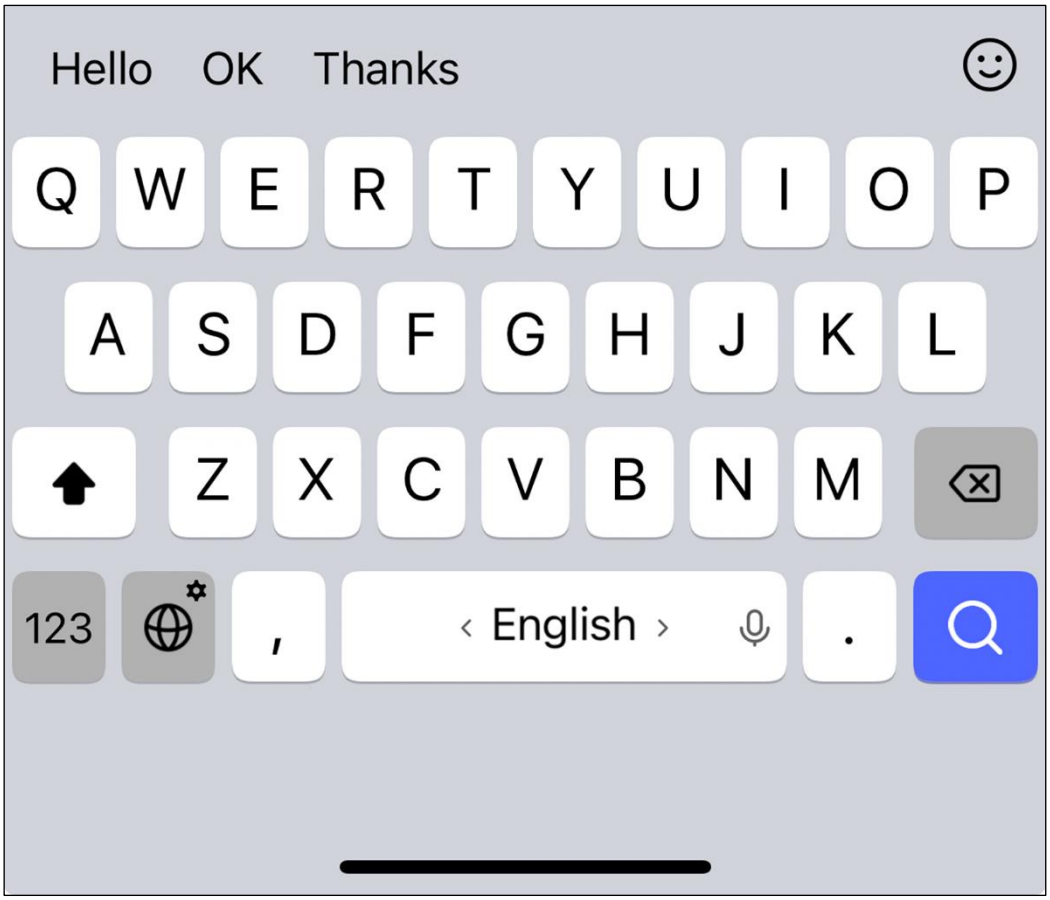
IPA Fans

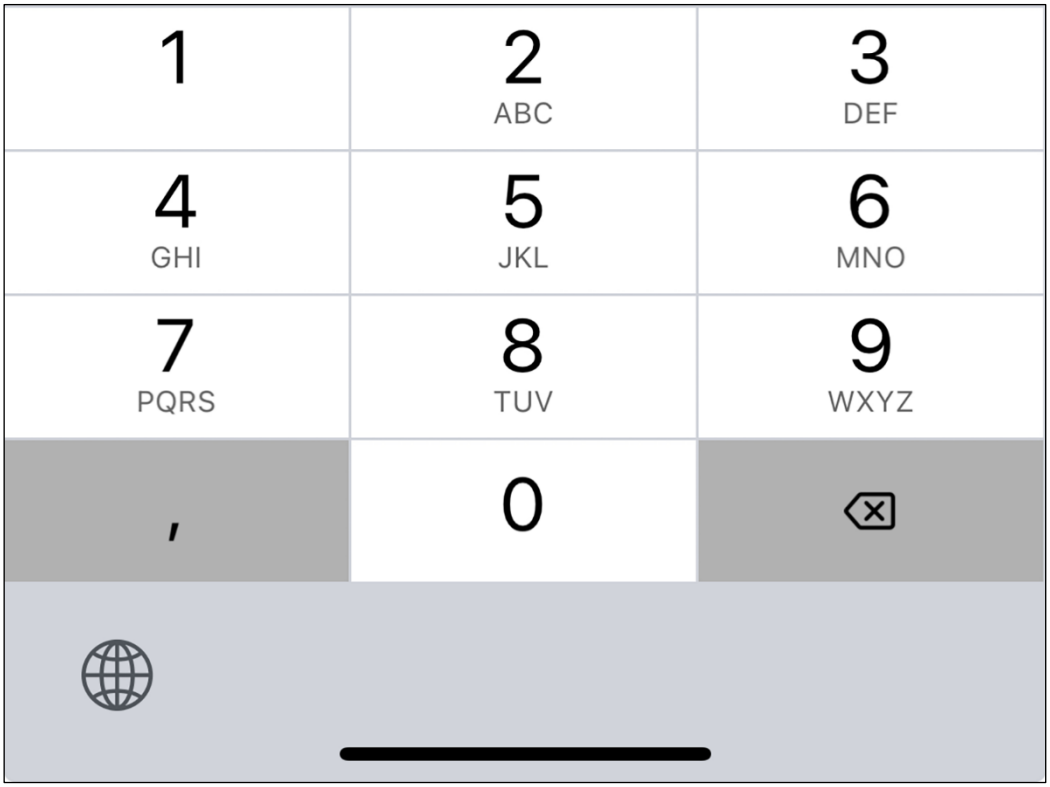
Stout Fans

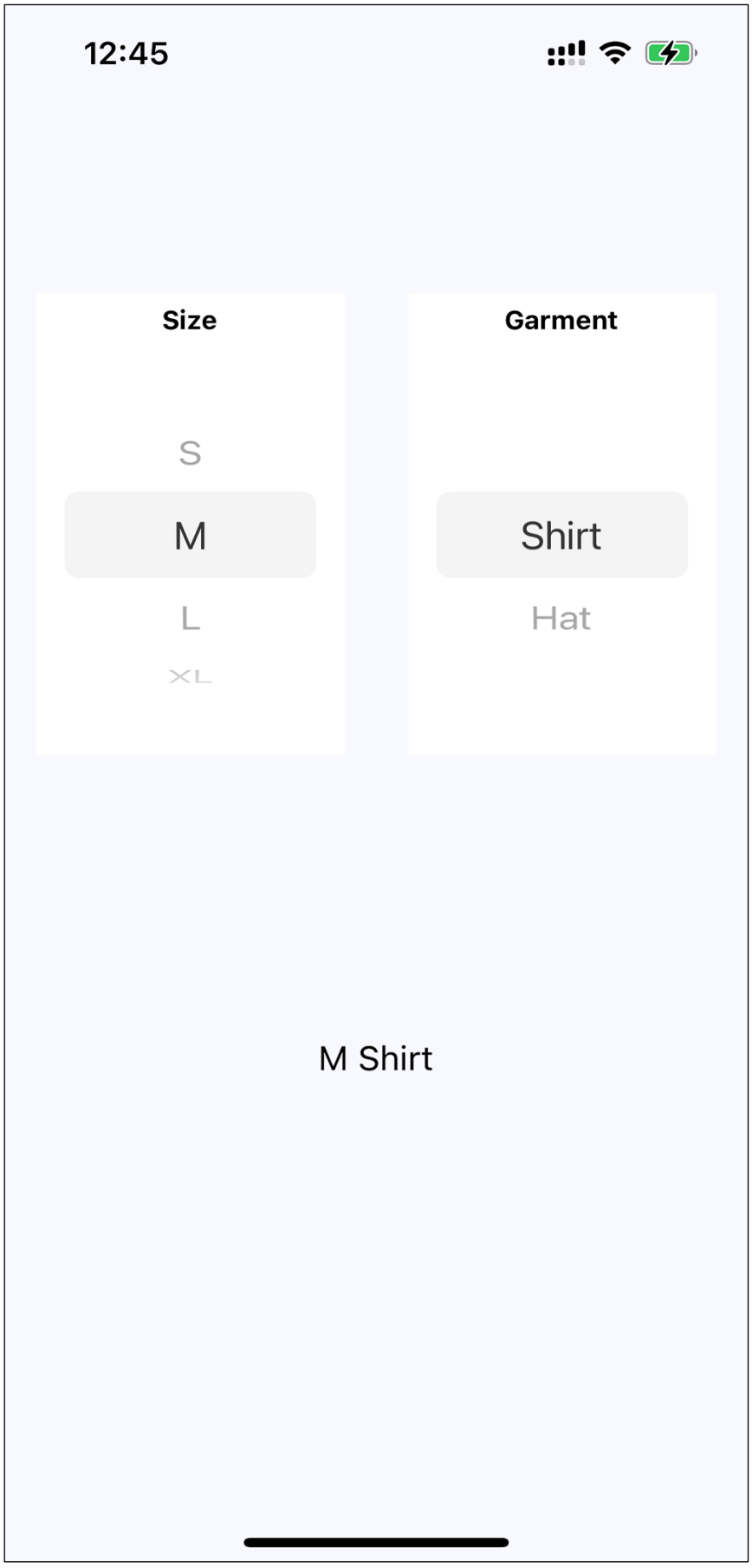


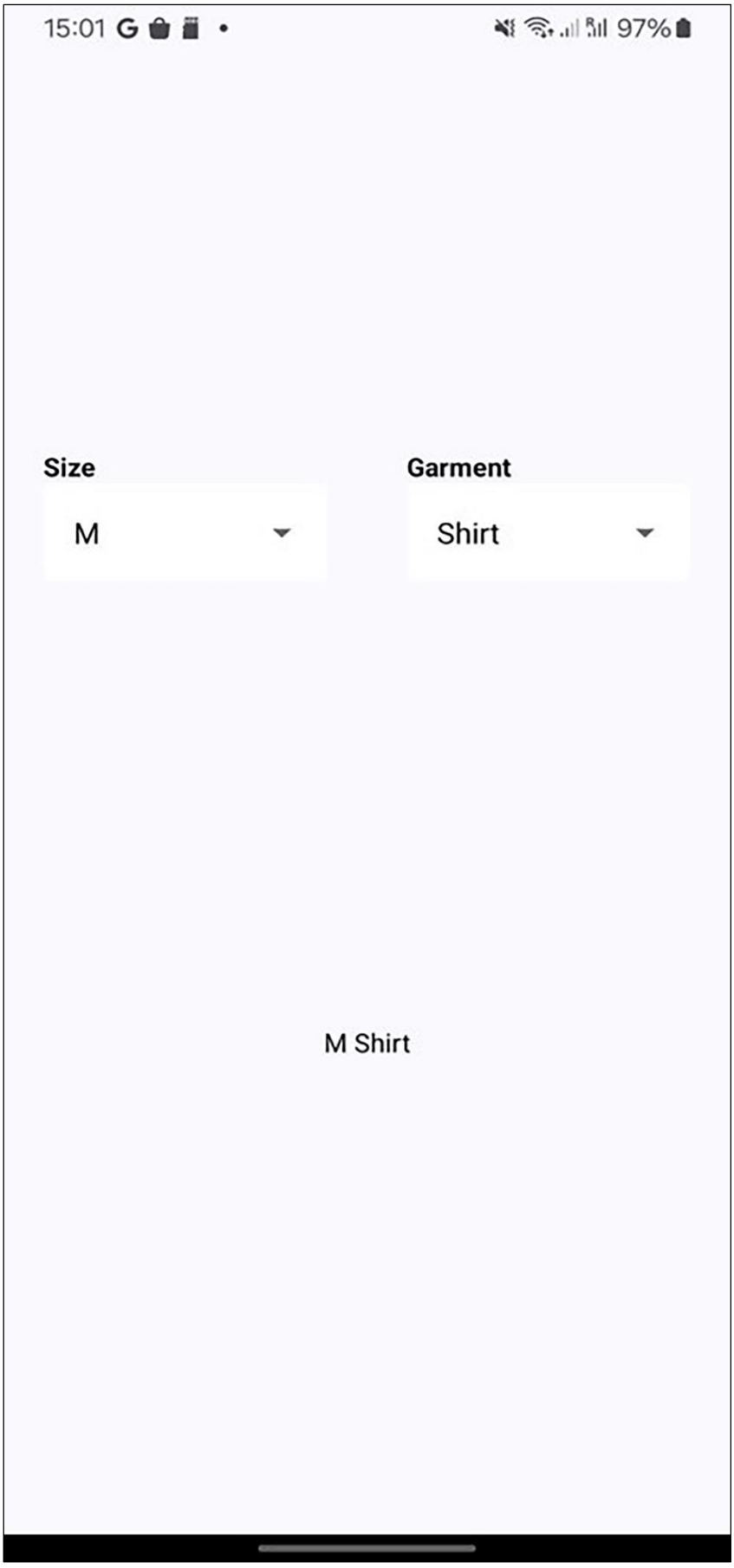
Chapter 22: Collecting User Input

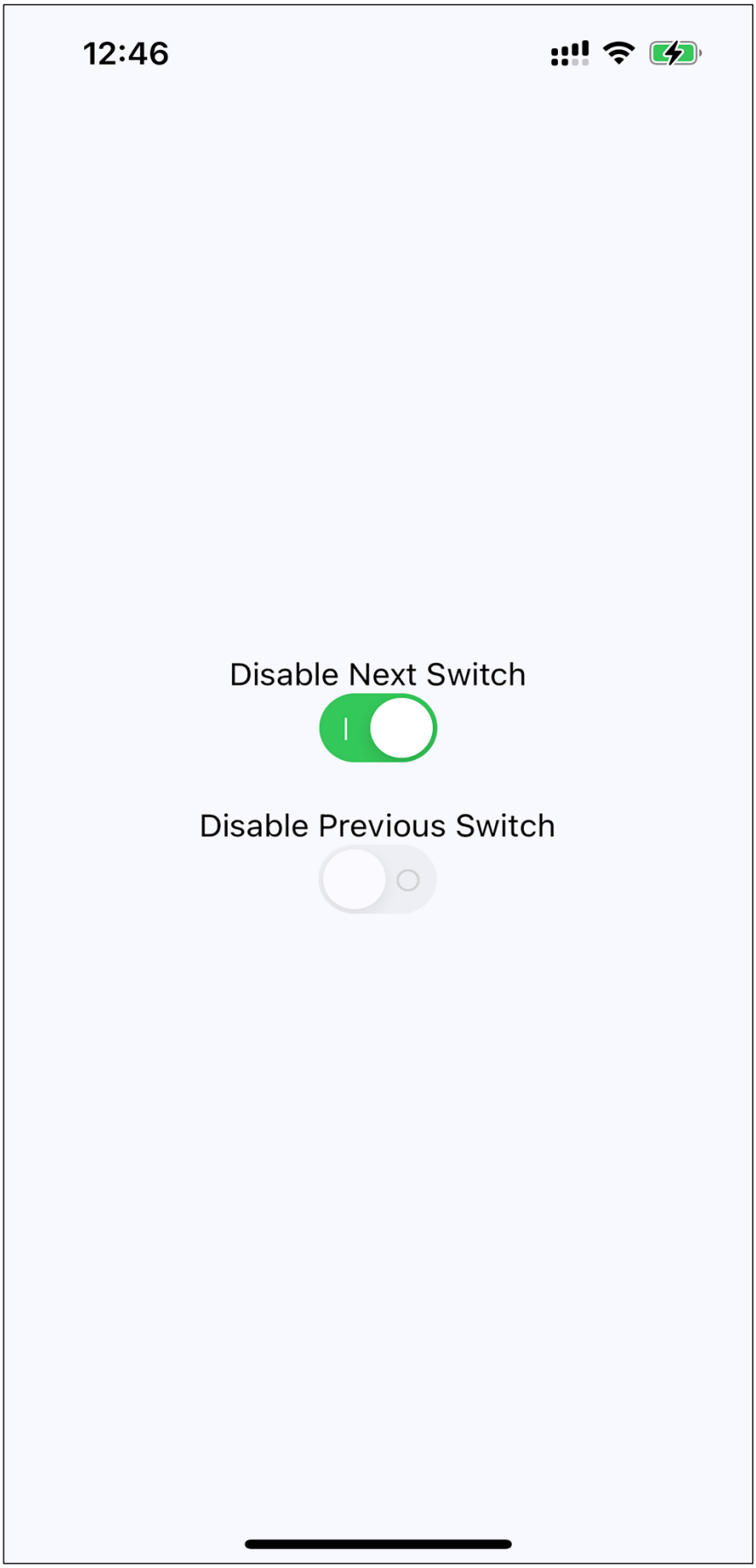


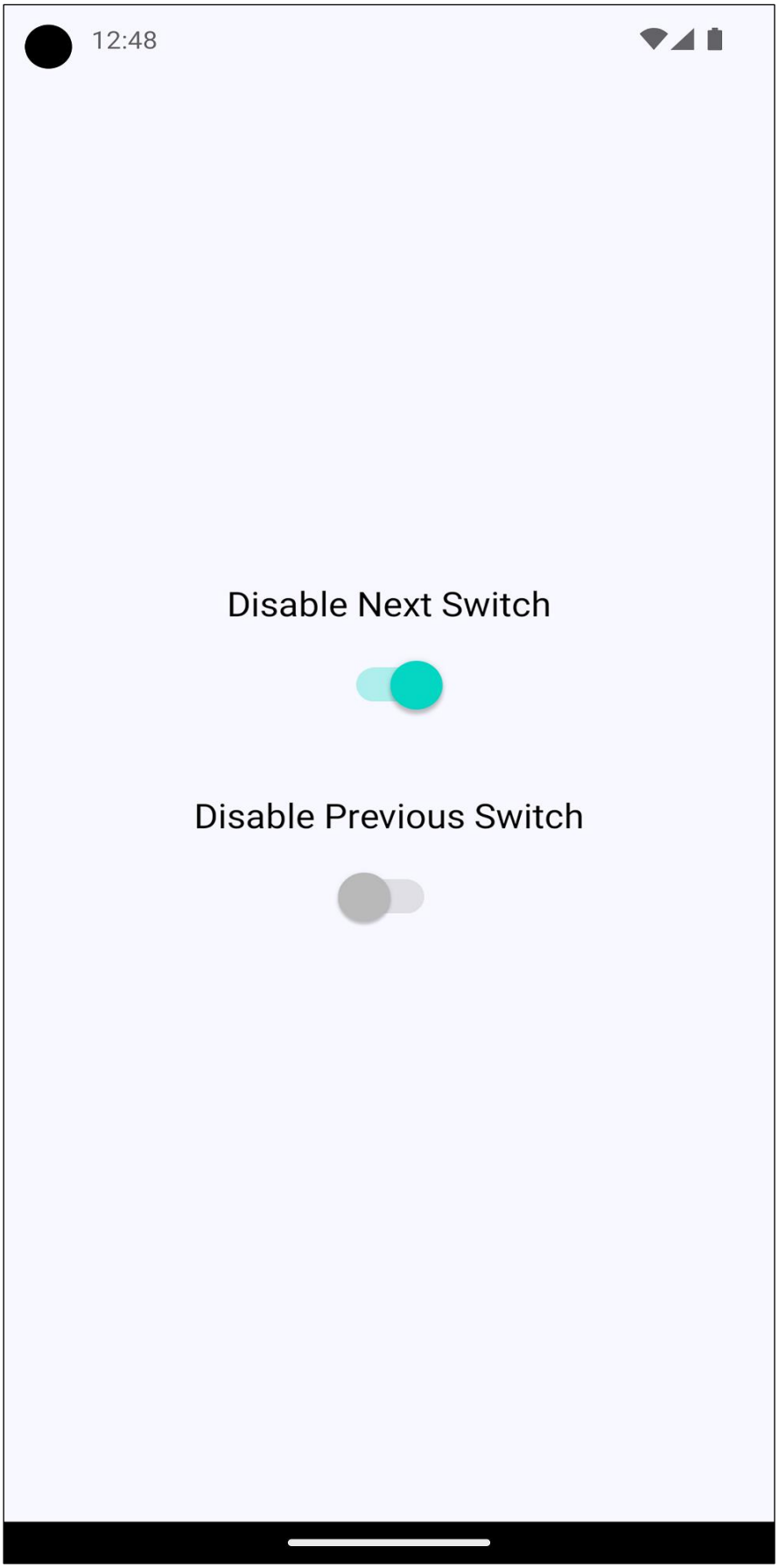

Hello OK Thanks
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
123
English

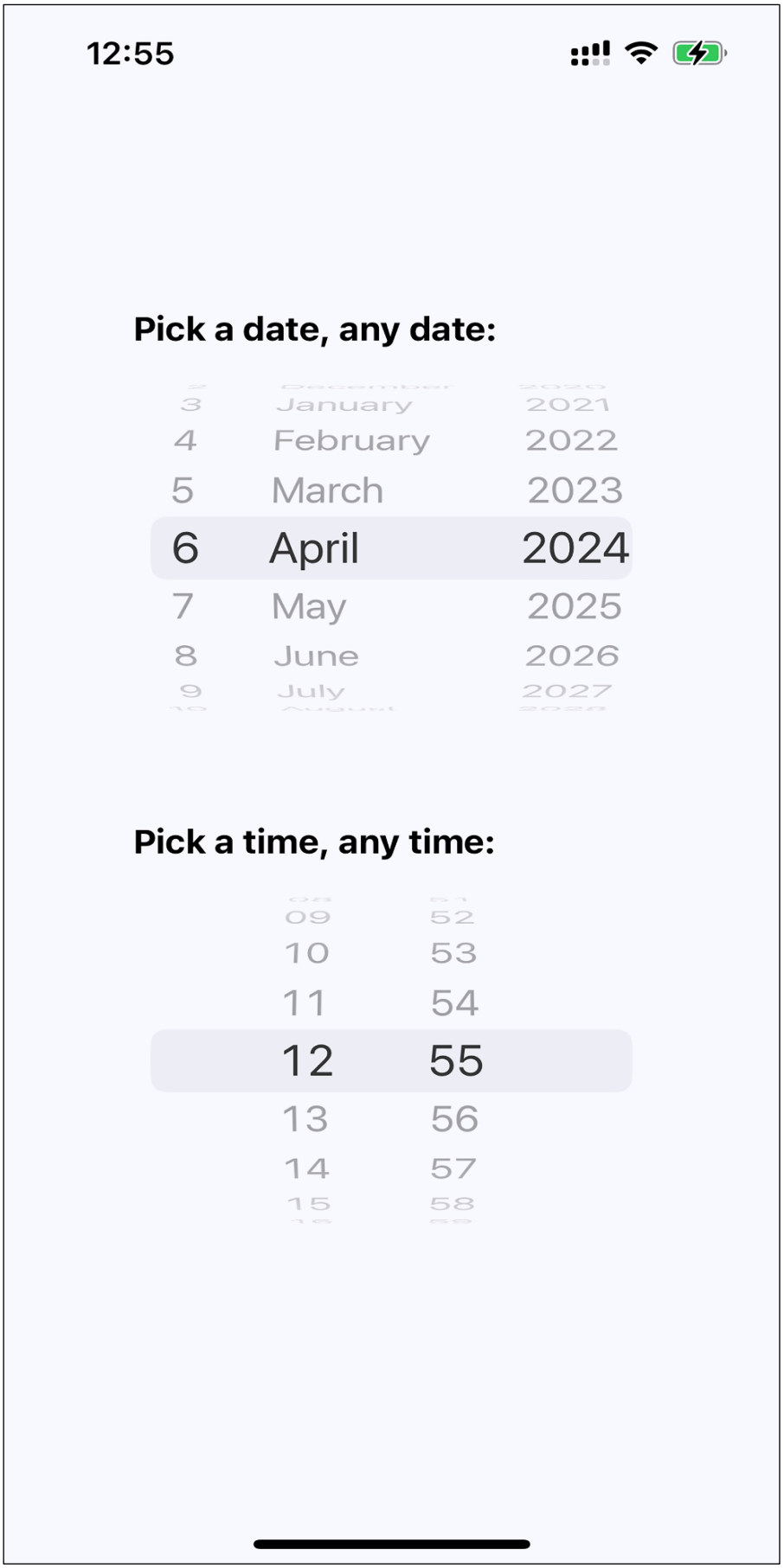

1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
0

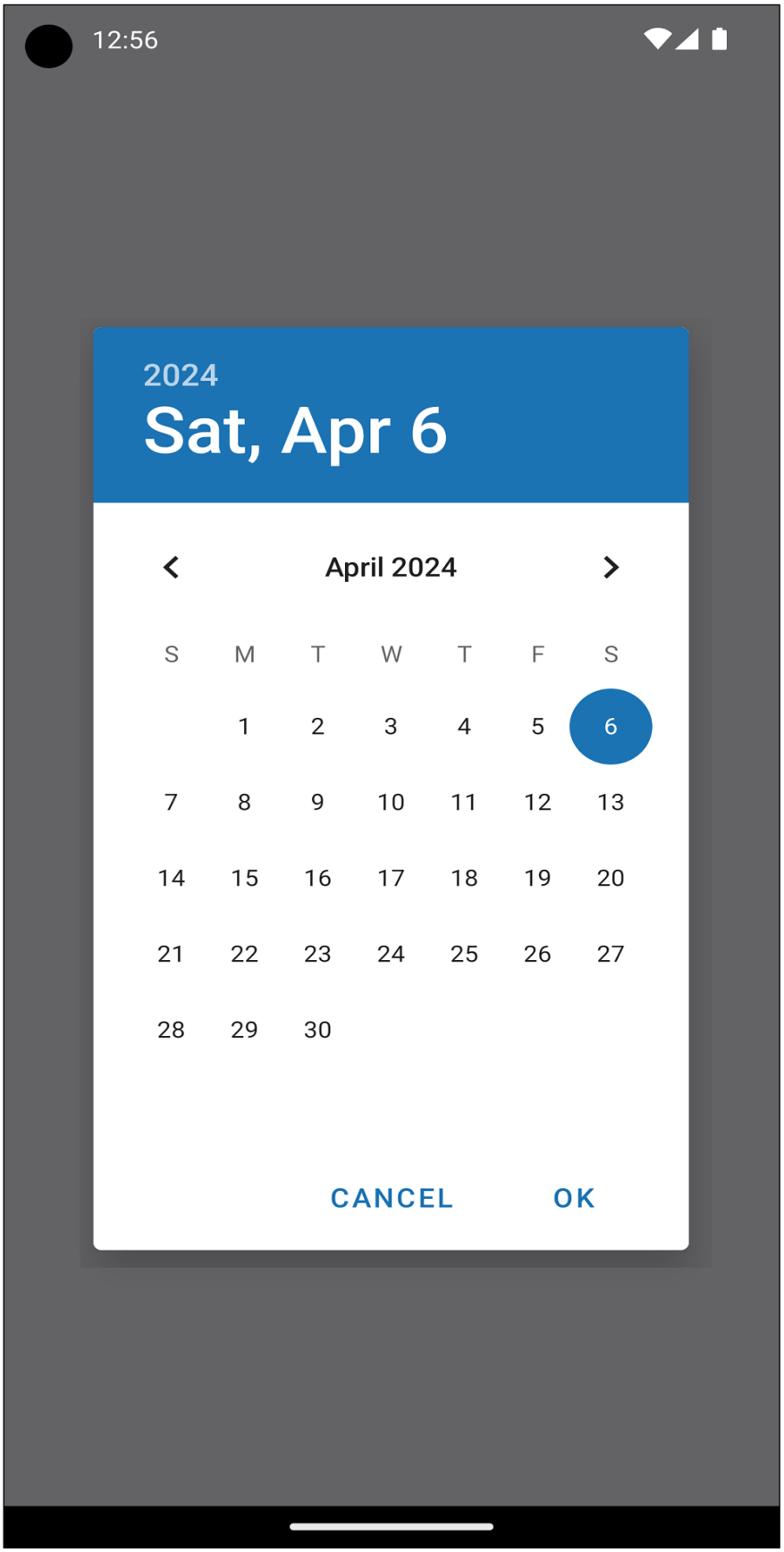

12:45
Size
S
M
L
XL
Garment
Shirt
Hat
M Shirt


15:01
97%
Size
M
Garment
Shirt
M Shirt

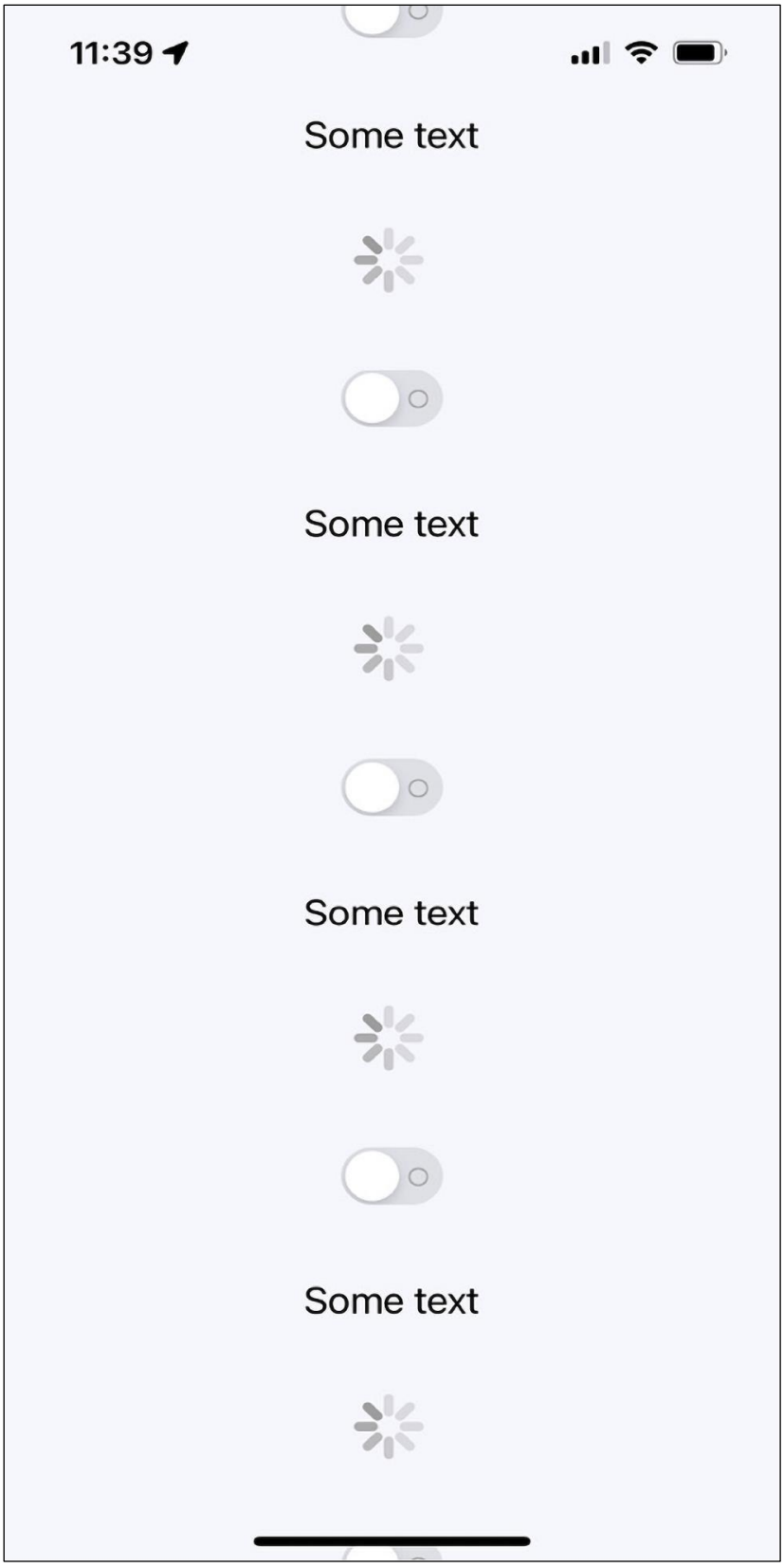

12:46
Disable Next Switch
Disable Previous Switch

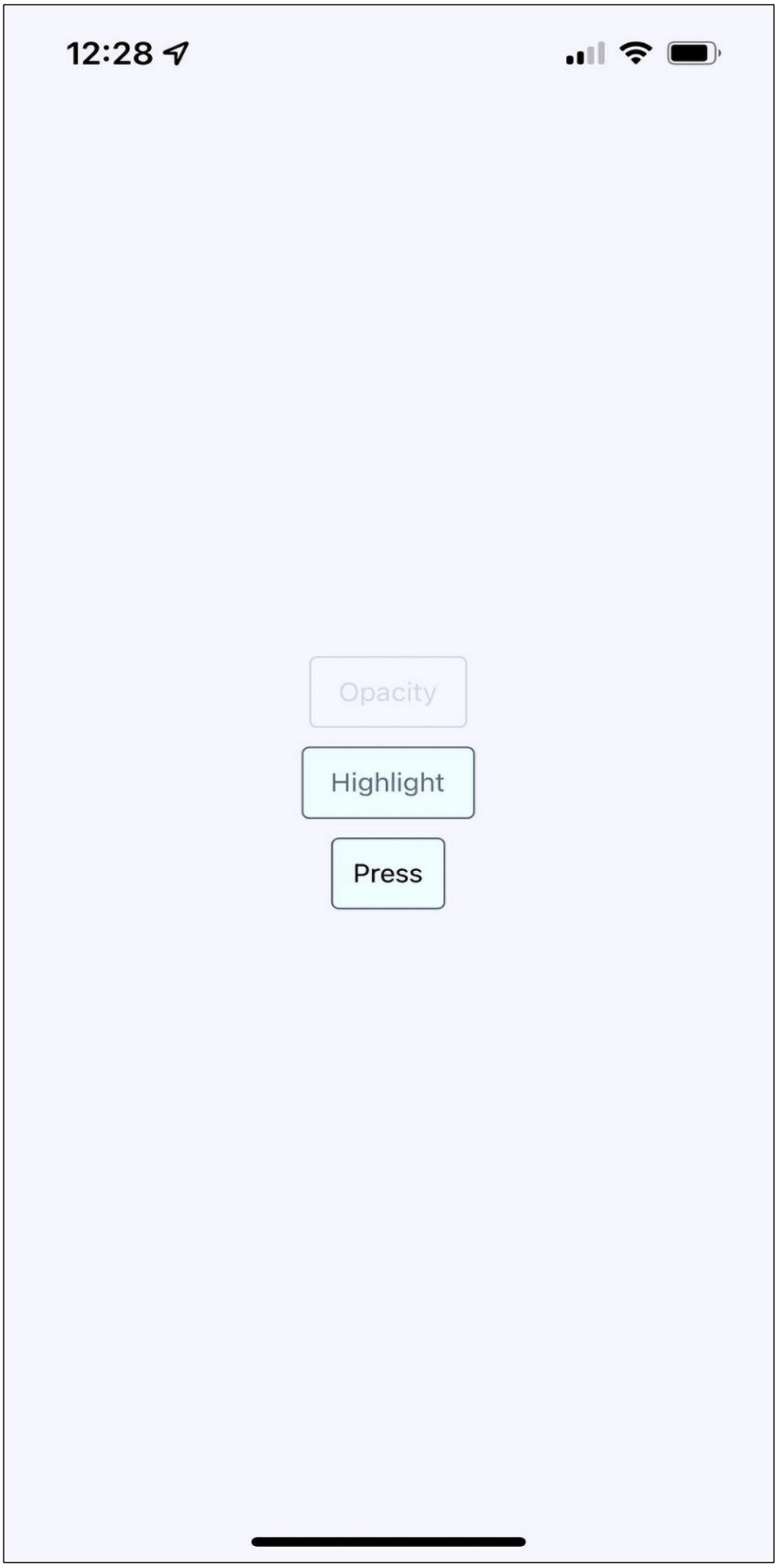

12:48
Disable Next Switch
Disable Previous Switch

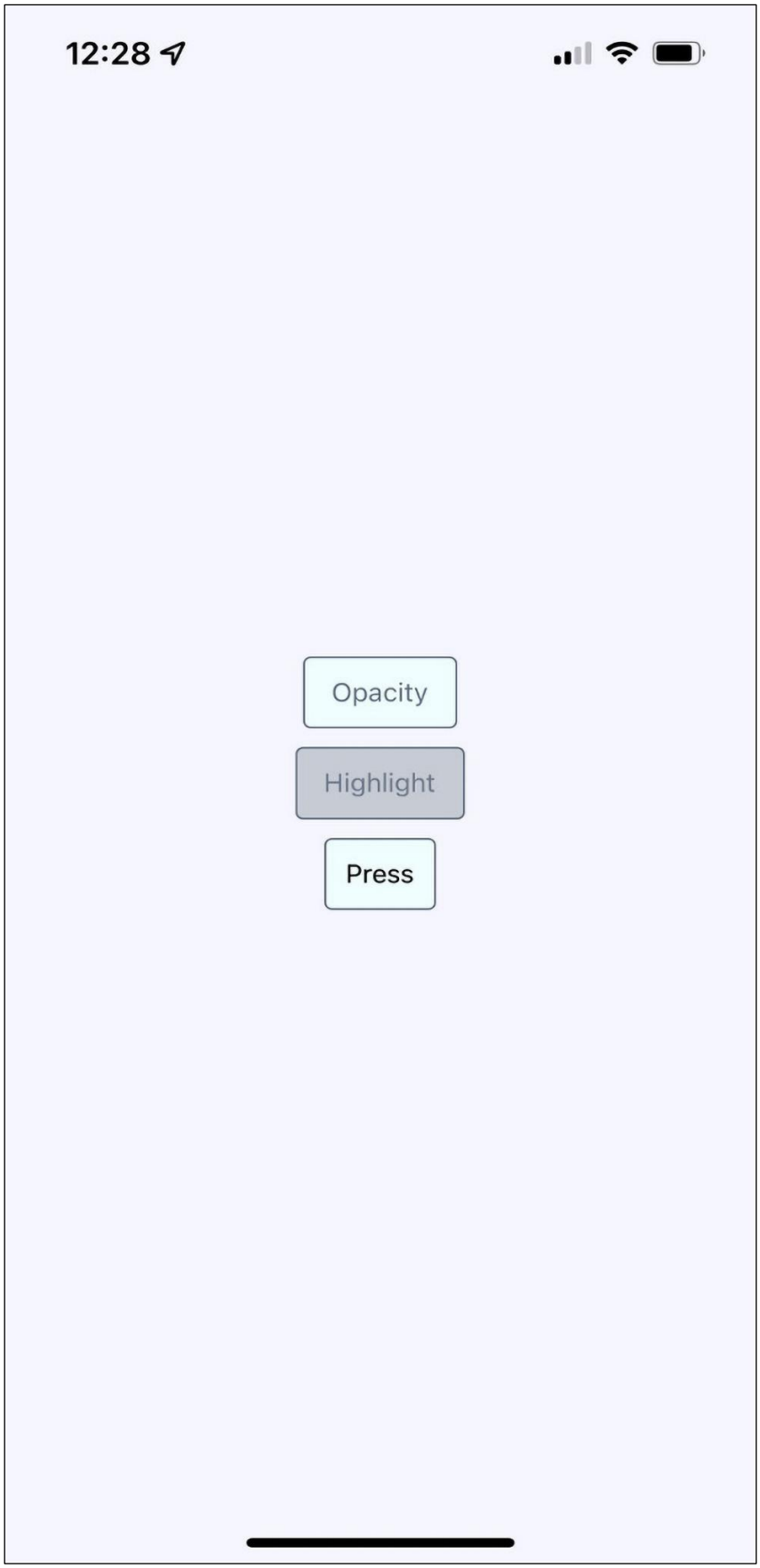

12:55
Pick a date, any date:
3 January 2021
4 February 2022
5 March 2023
6 April 2024
7 May 2025
8 June 2026
9 July 2027
Pick a time, any time:
09 52
10 53
11 54
12 55
13 56
14 57
15 58

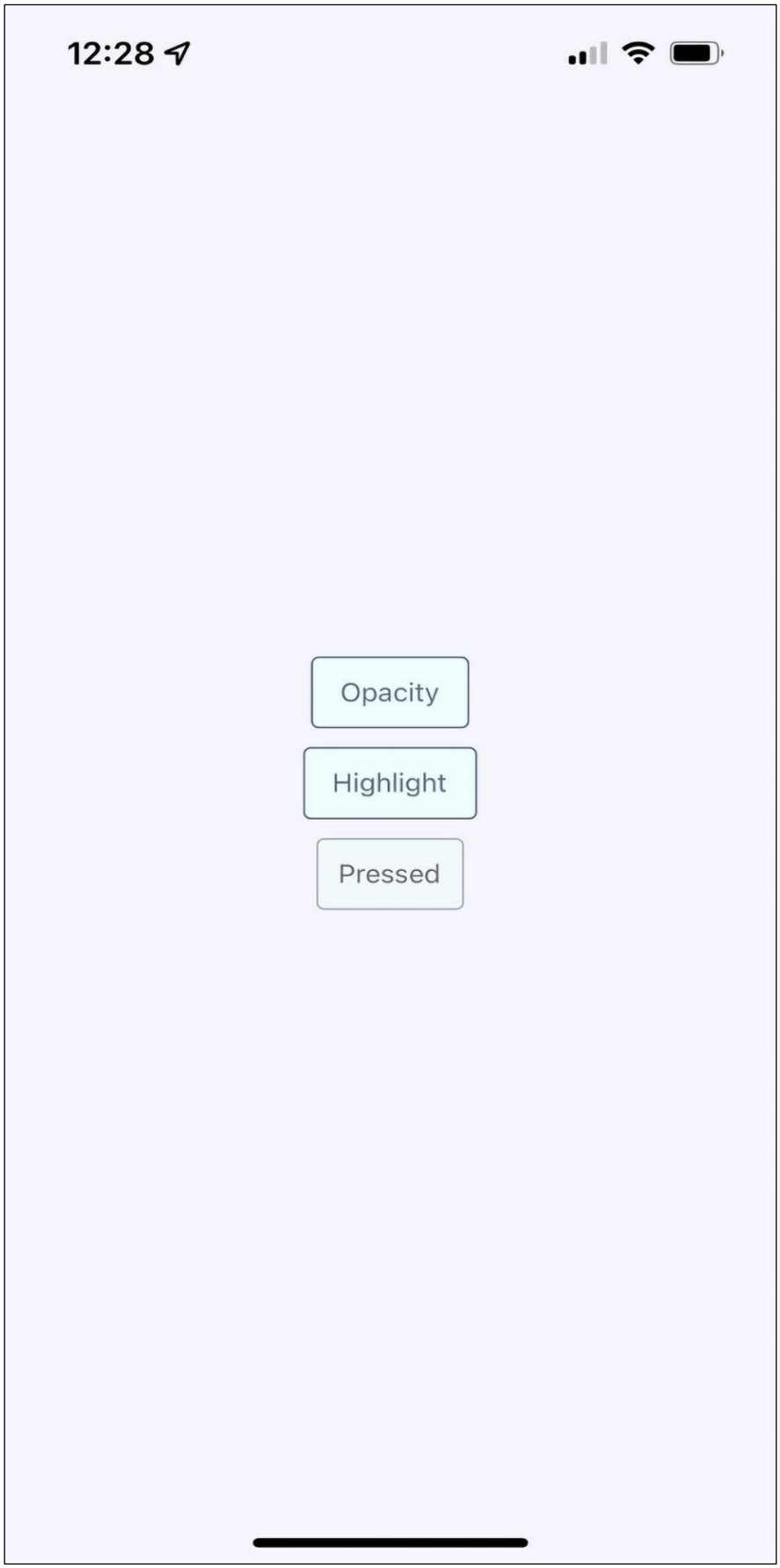

12:56
2024
Sat, Apr 6
April 2024
S M T W T F S
1 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30
CANCEL
OK

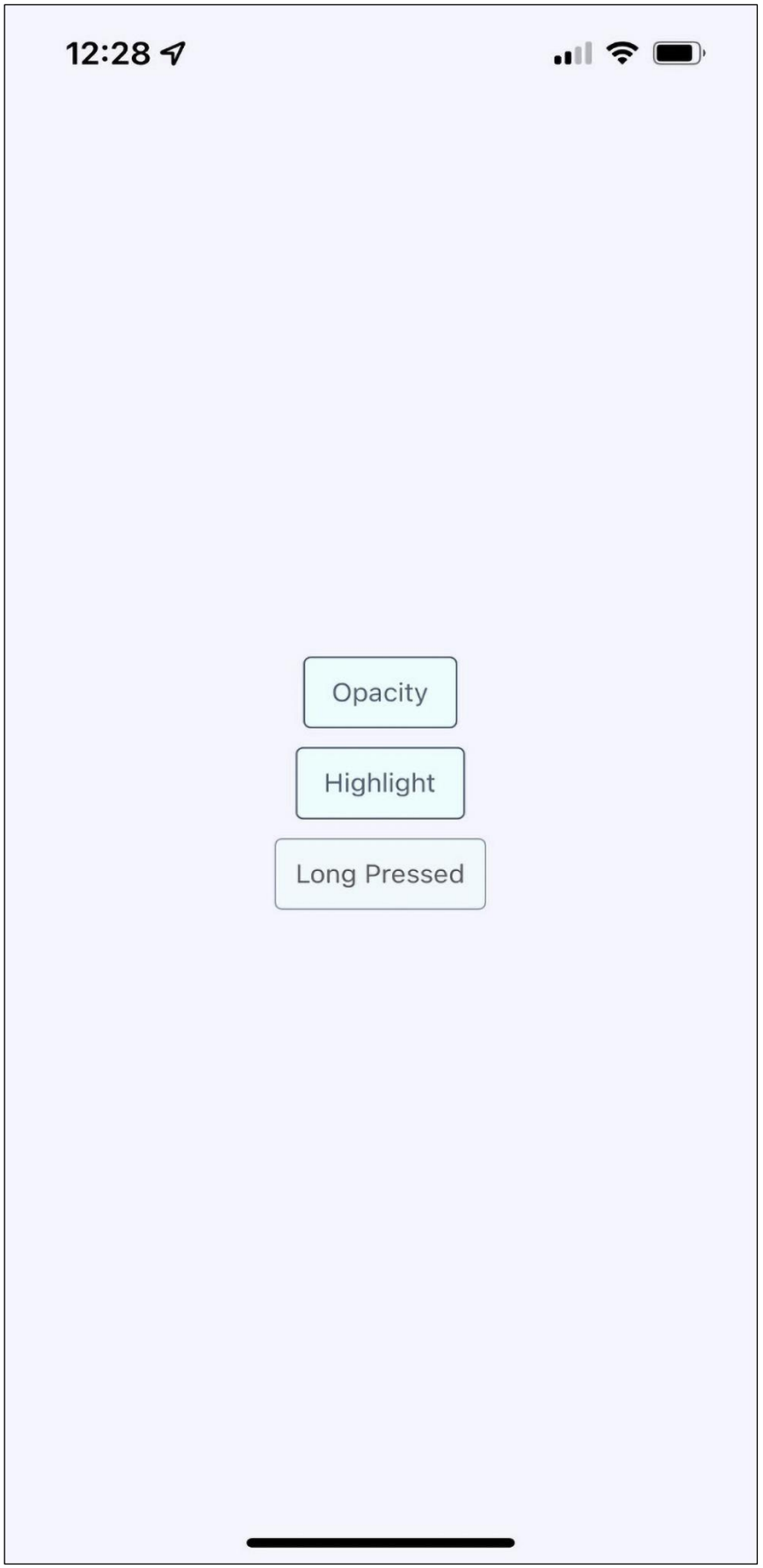
Chapter 23: Responding to User Gestures

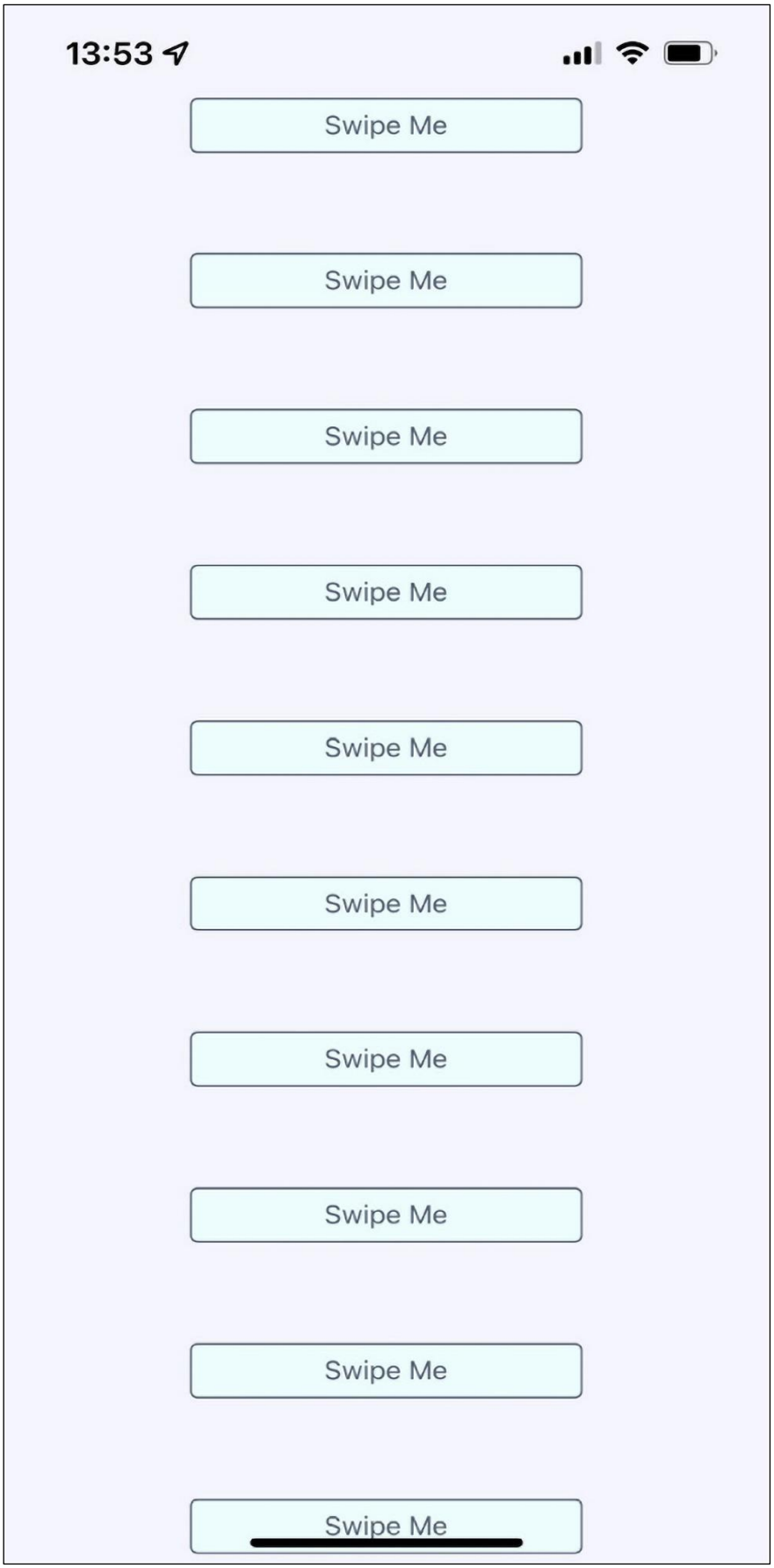


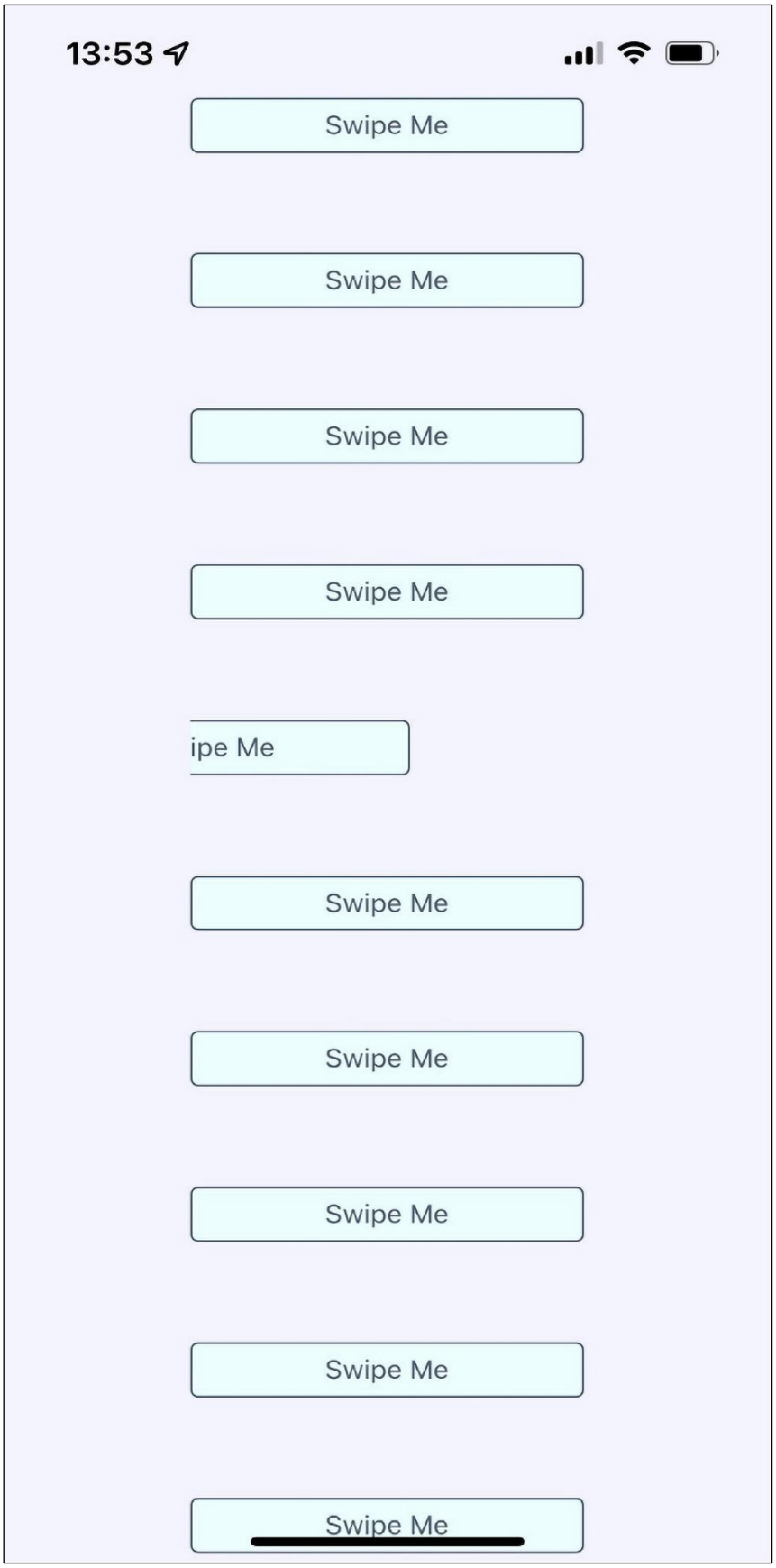

12:28
Opacity
Highlight
Press


12:28
Opacity
Highlight
Press

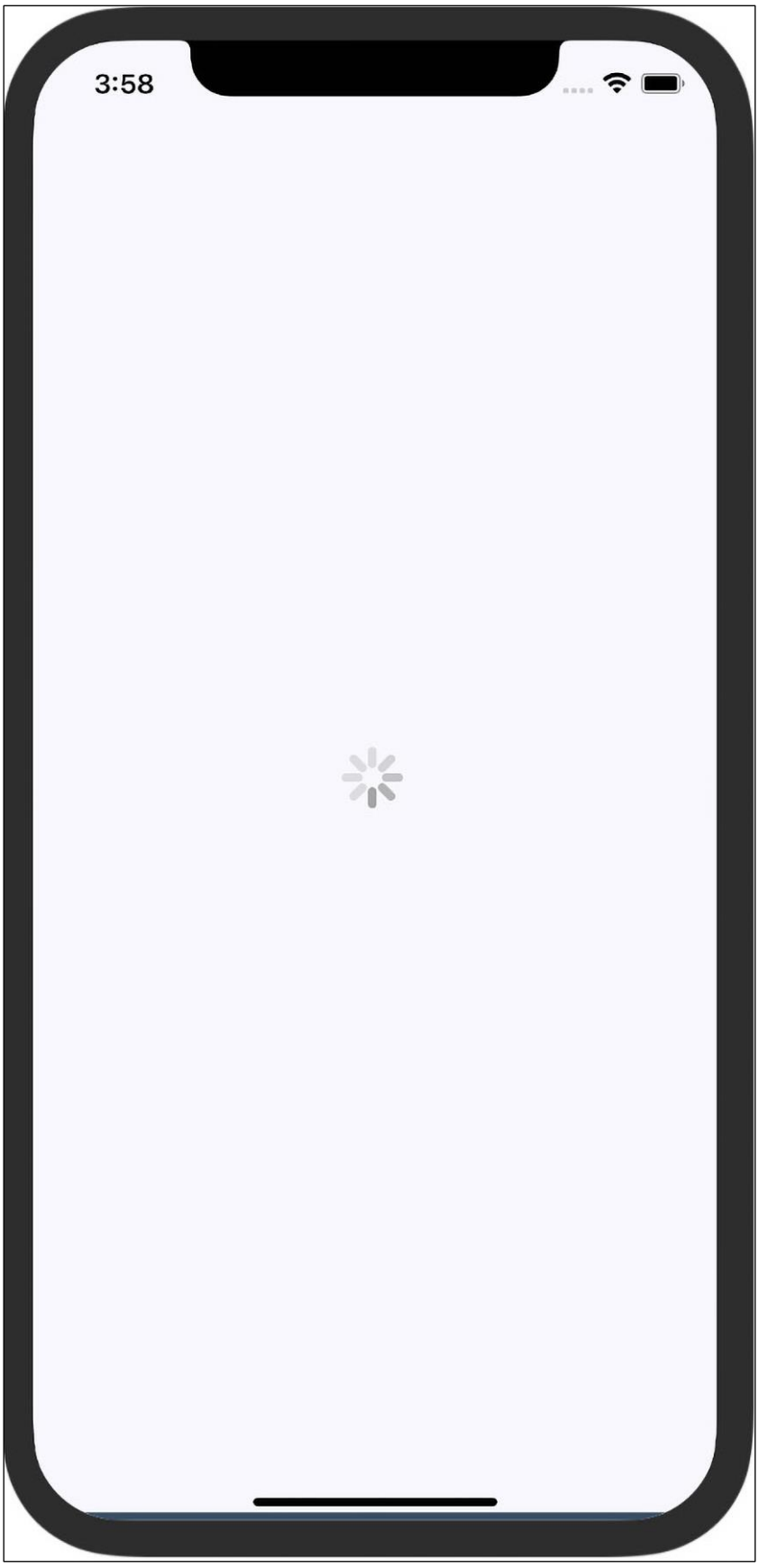

12:28
Opacity
Highlight
Pressed

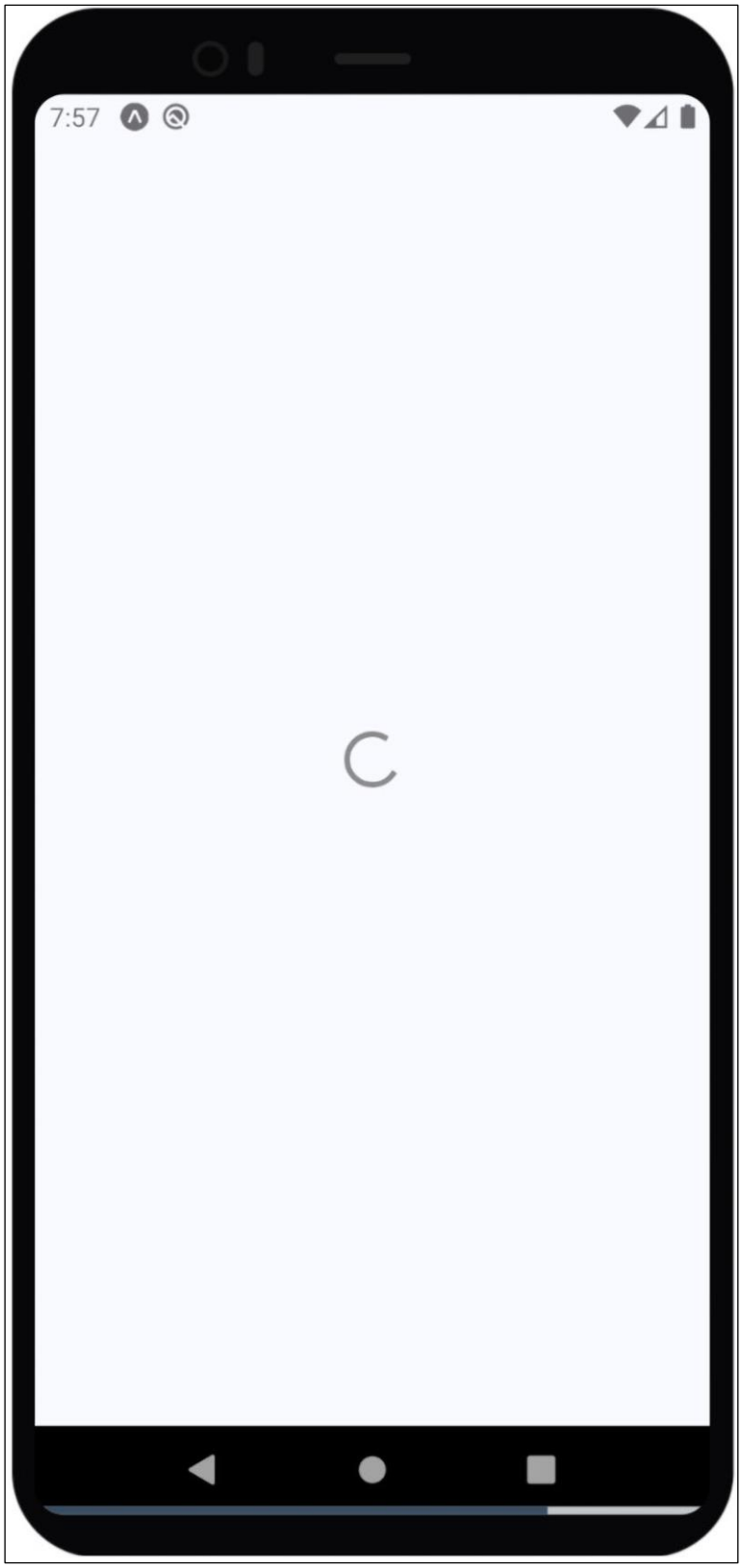

12:28
Opacity
Highlight
Long Pressed

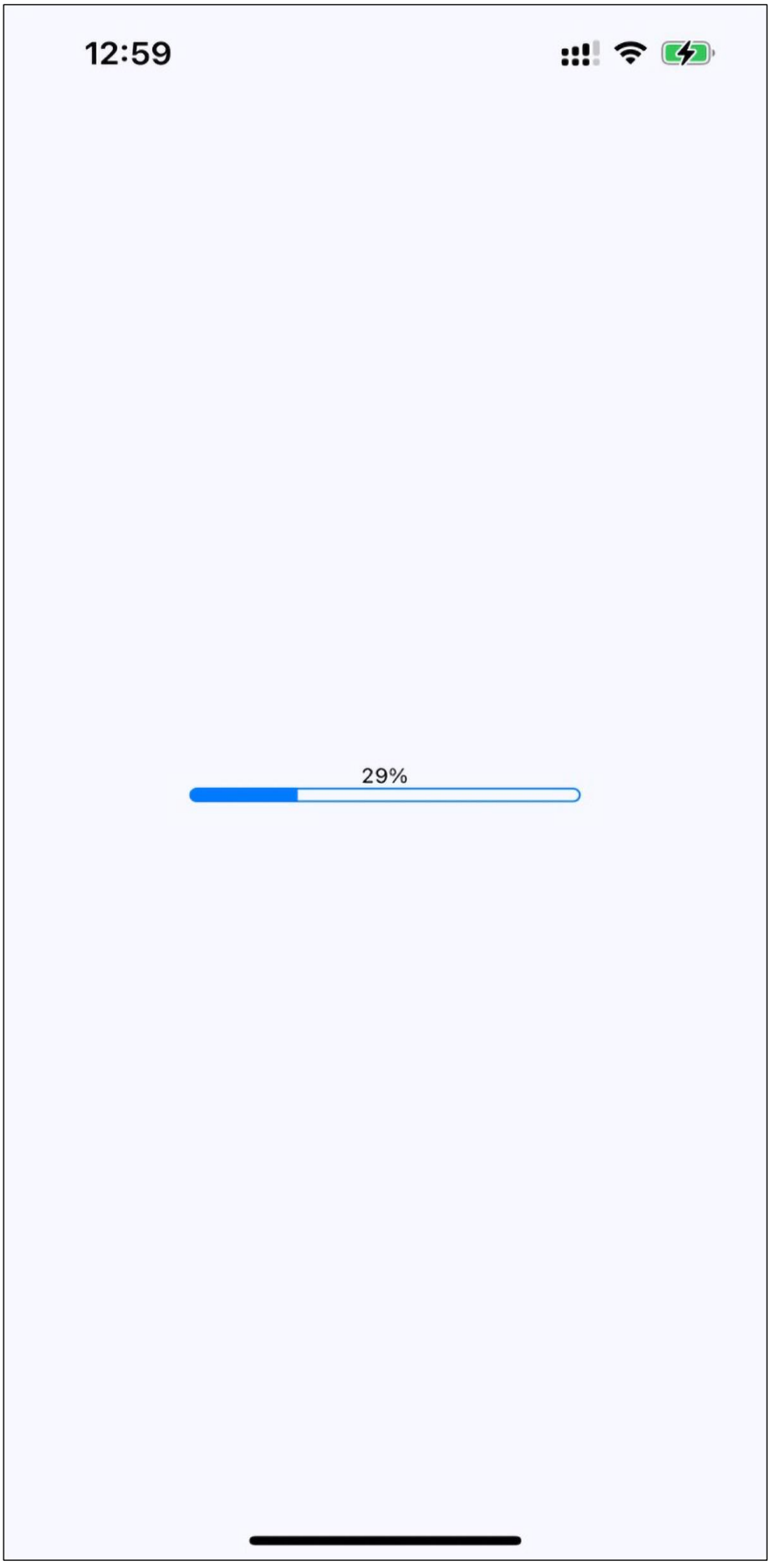

13:53
Swipe Me
Swipe Me
Swipe Me
Swipe Me
Swipe Me
Swipe Me
Swipe Me
Swipe Me
Swipe Me
Swipe Me

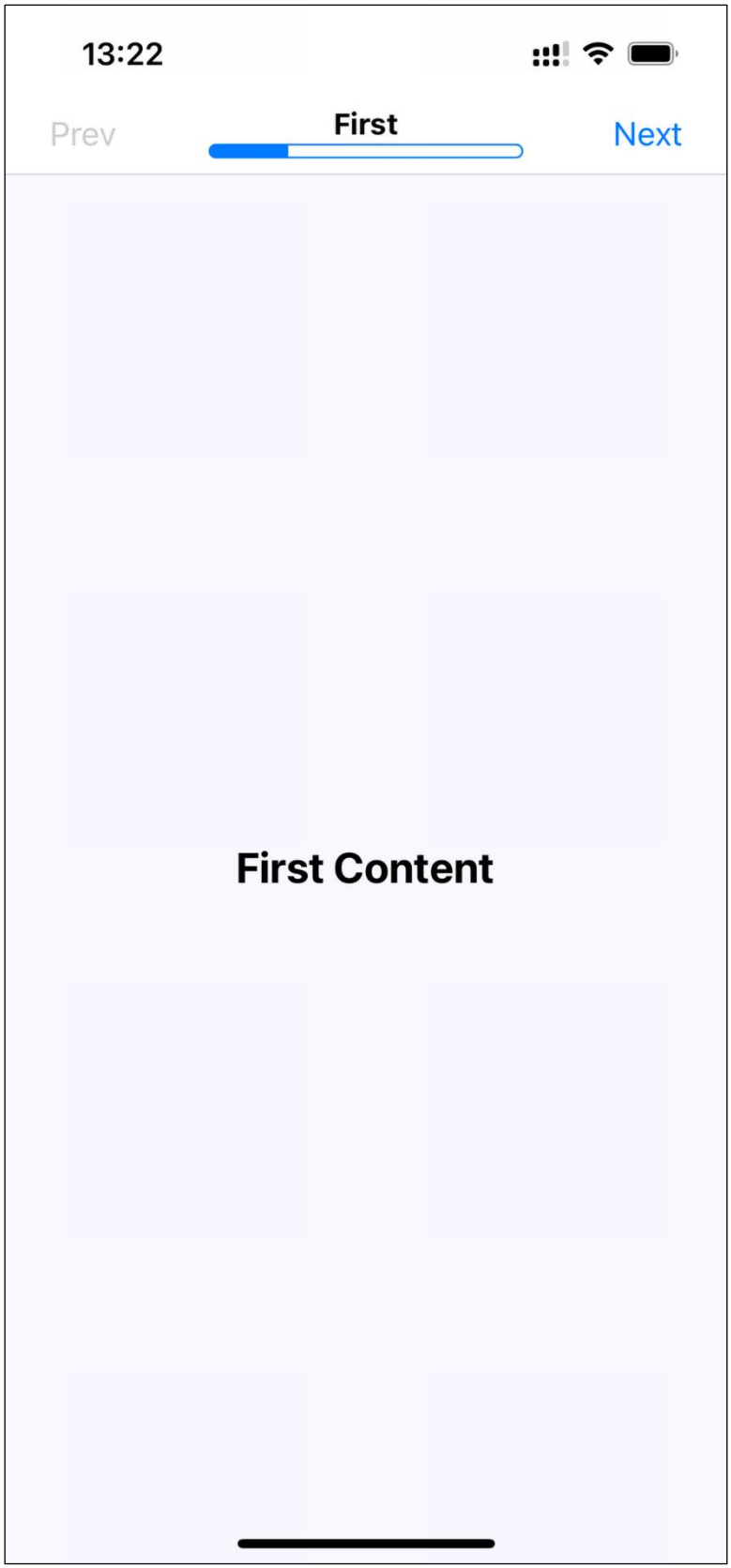

13:53
Swipe Me
Swipe Me
Swipe Me
Swipe Me
ipe Me
Swipe Me
Swipe Me
Swipe Me
Swipe Me
Swipe Me

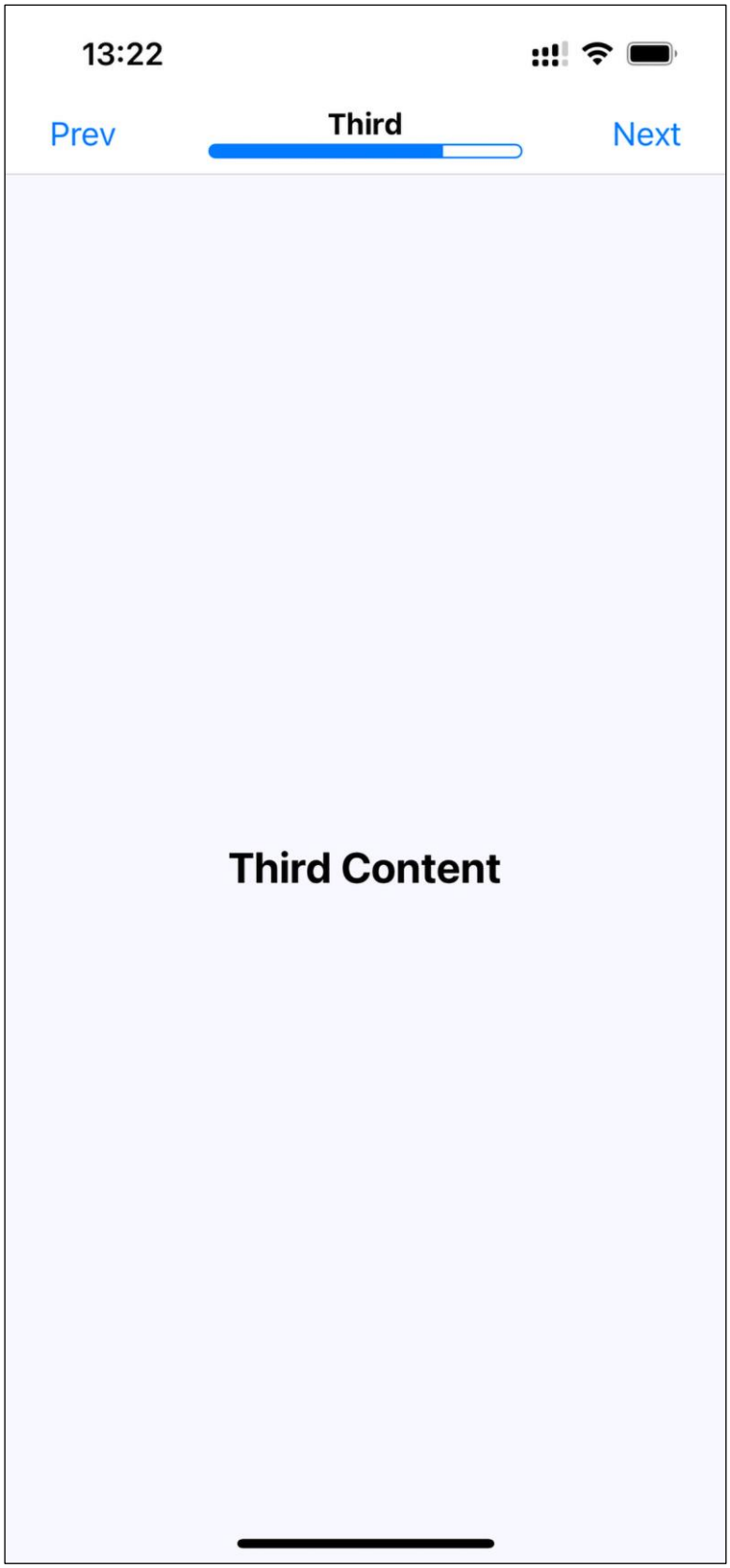
Chapter 24: Showing Progress



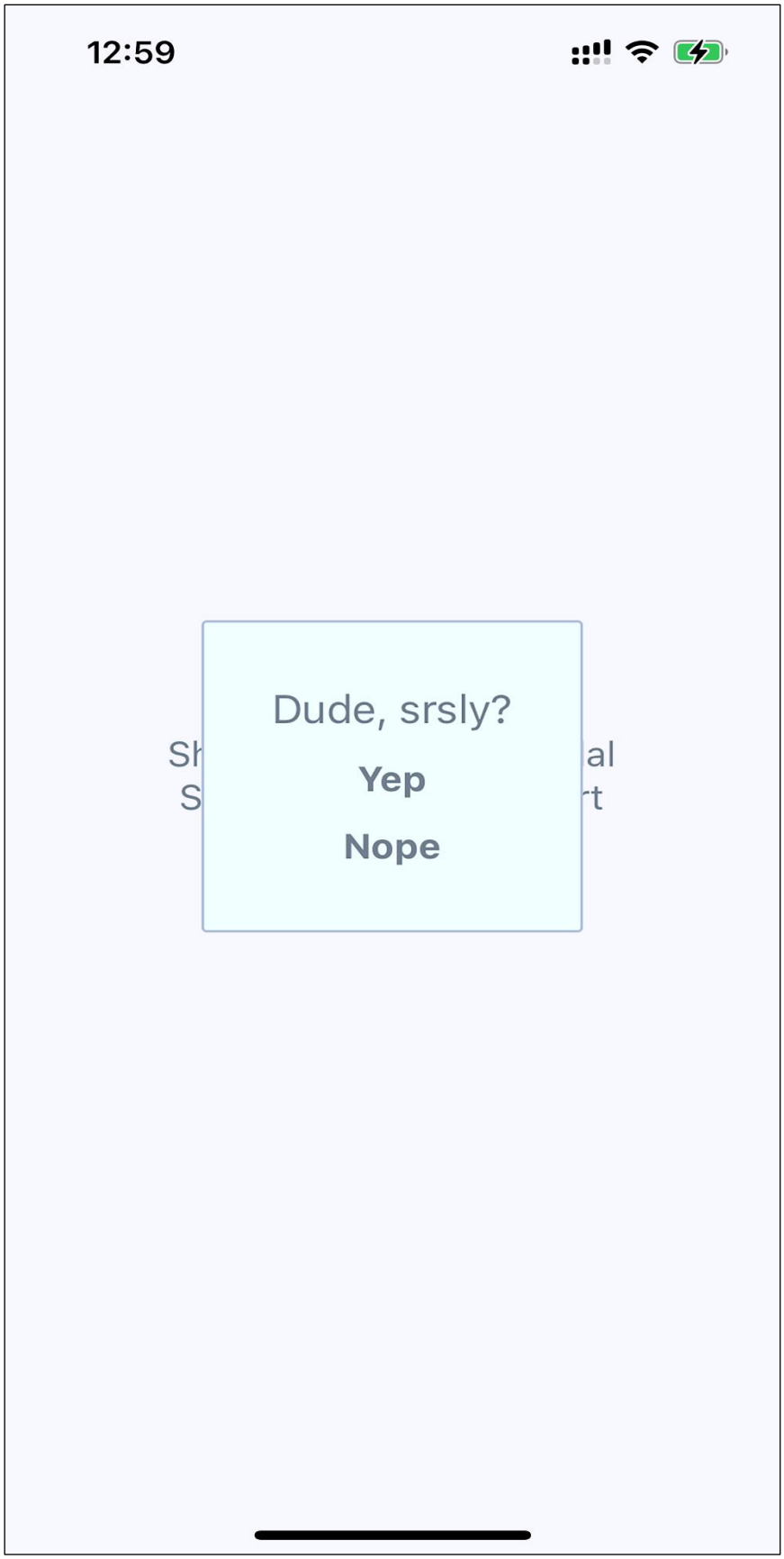

7:57

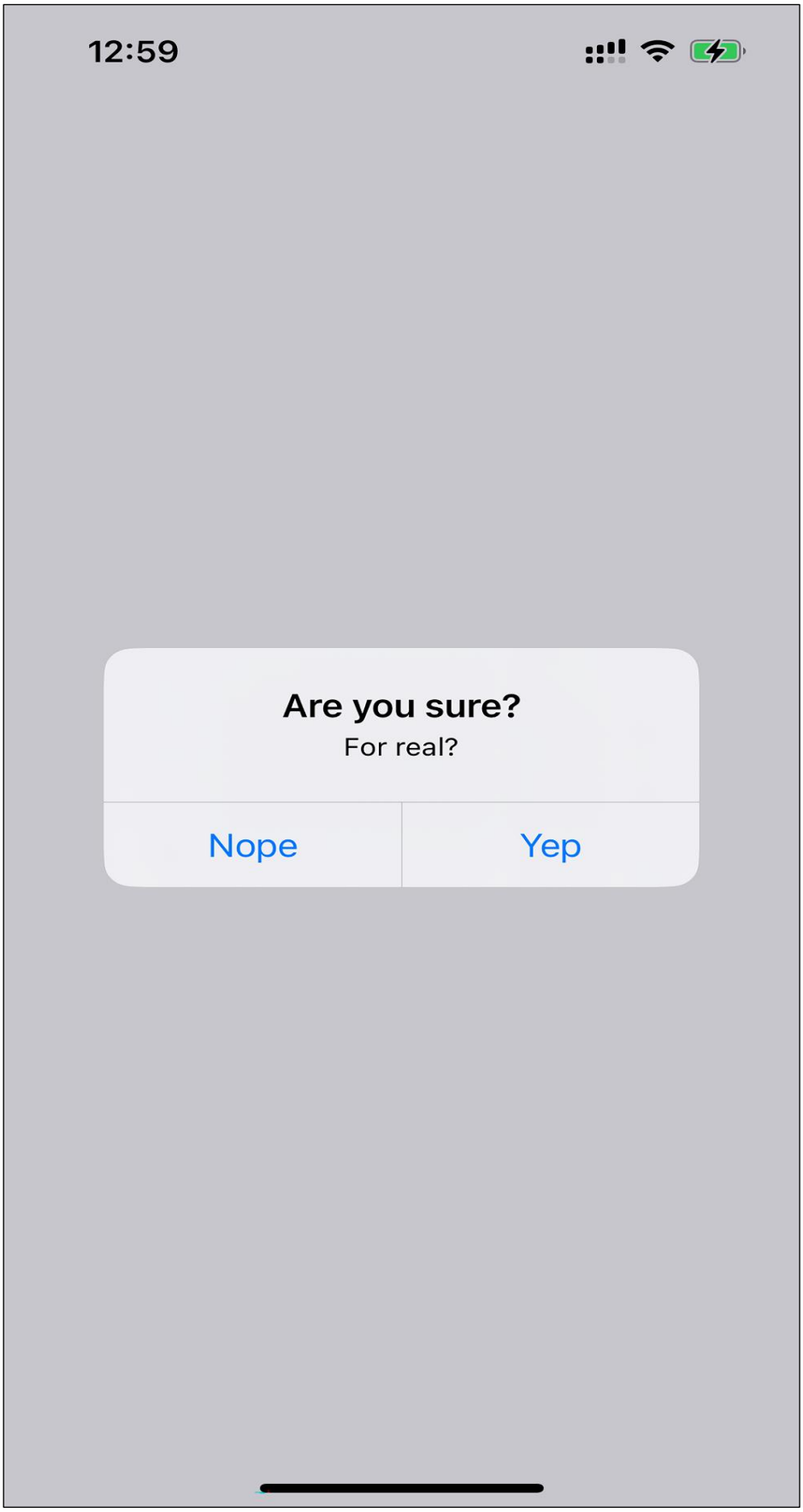

12:59
29%

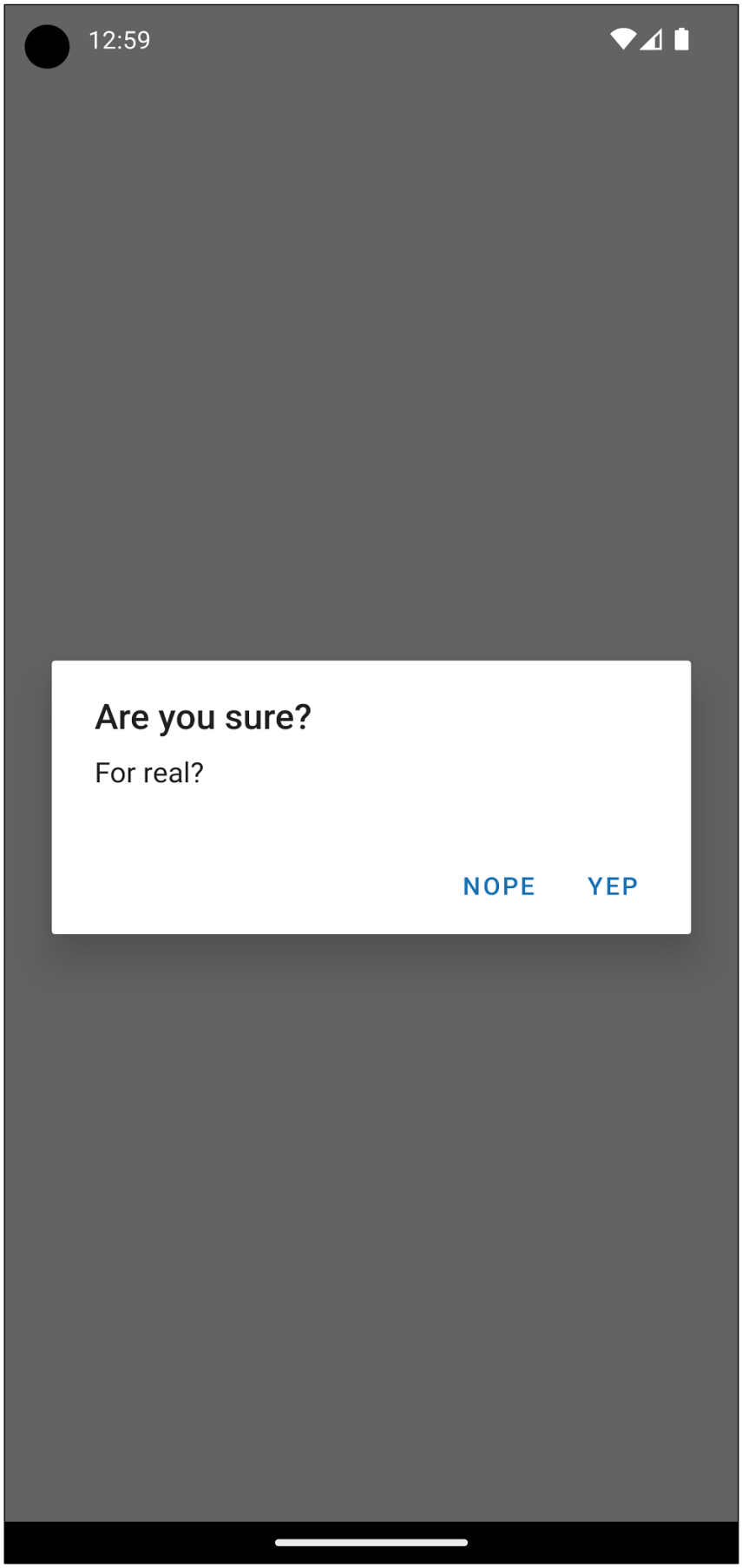

13:22
Prev
First
Next
First Content

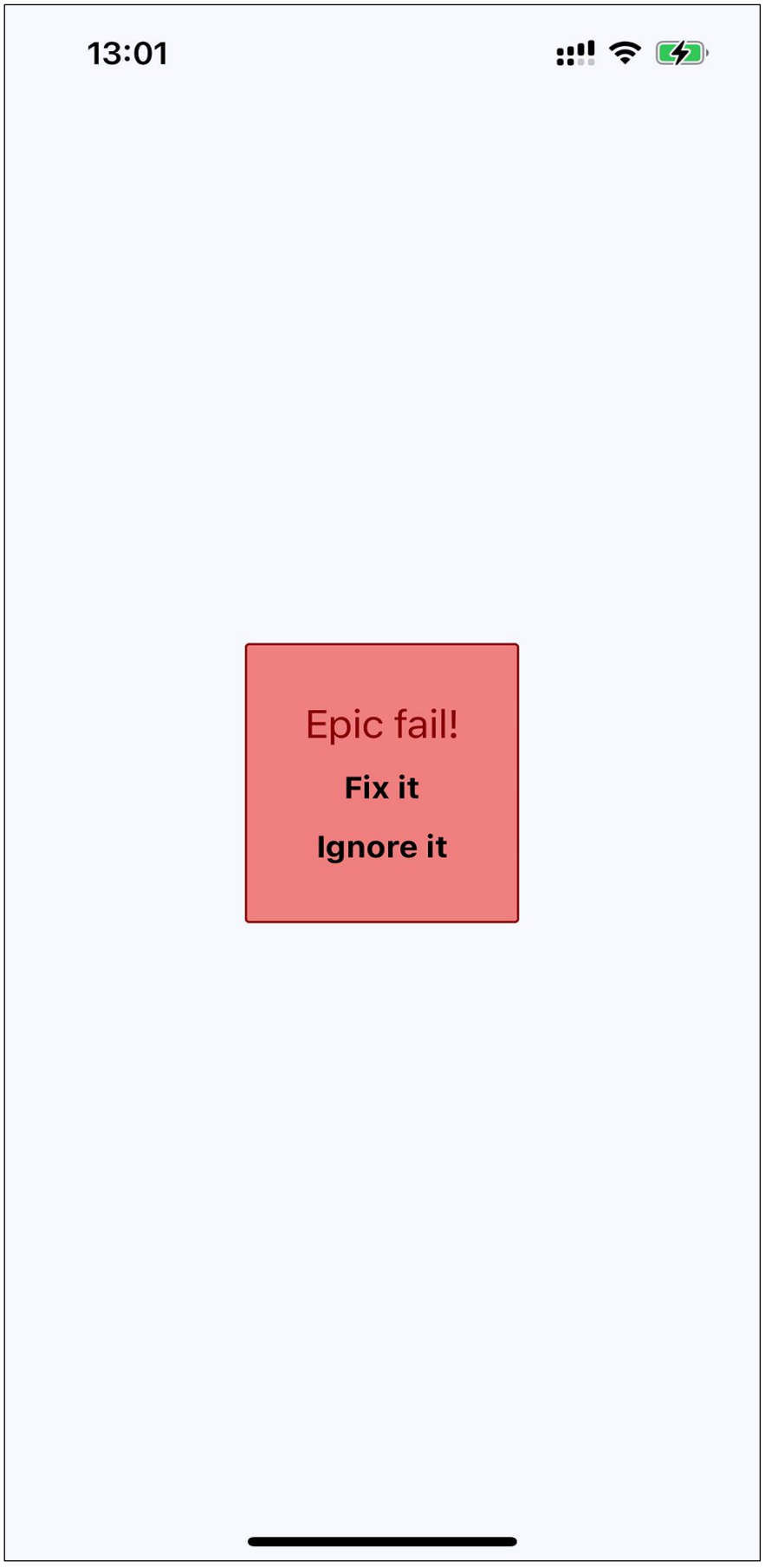

13:22
Prev
Third
Next
Third Content

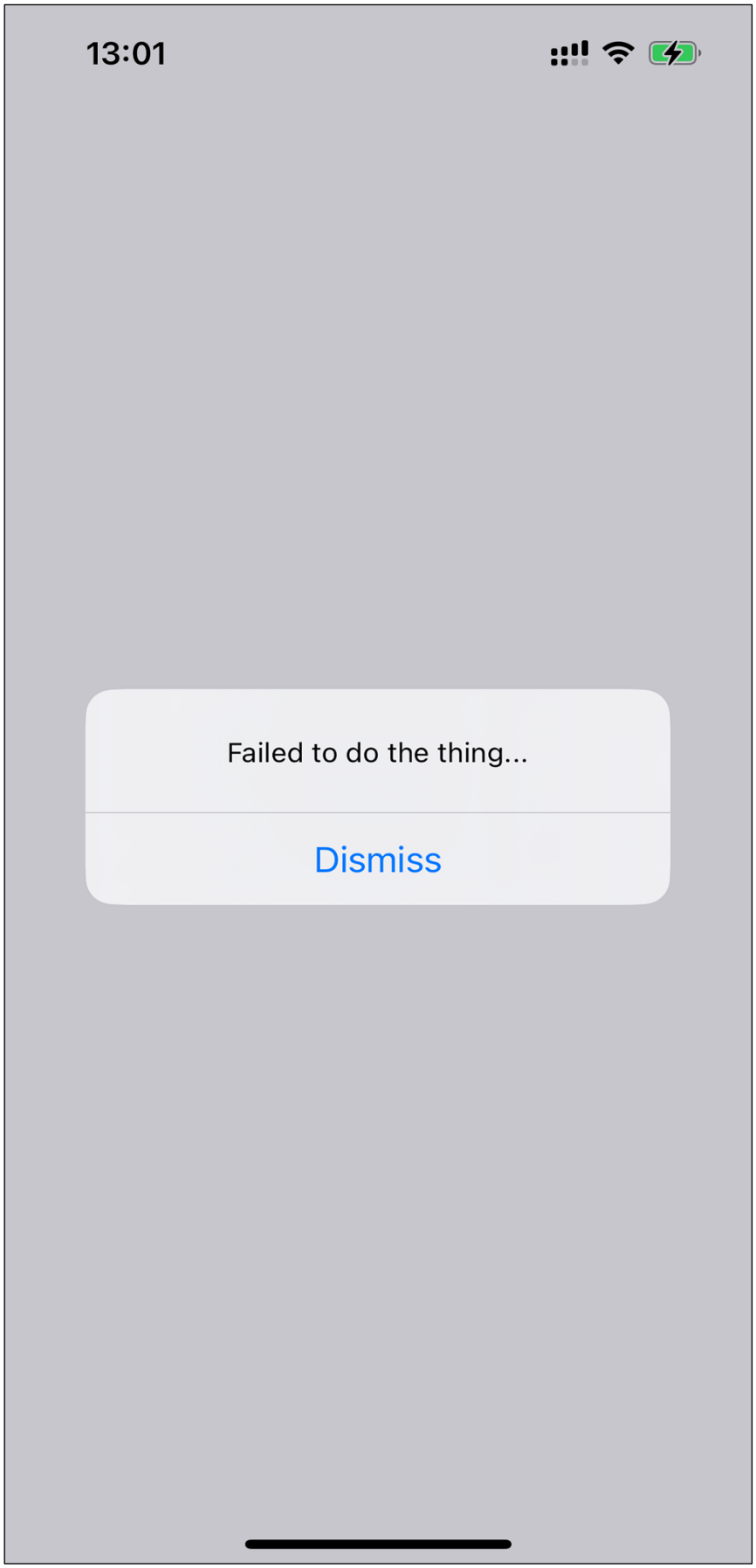
Chapter 25: Displaying Modal Screens

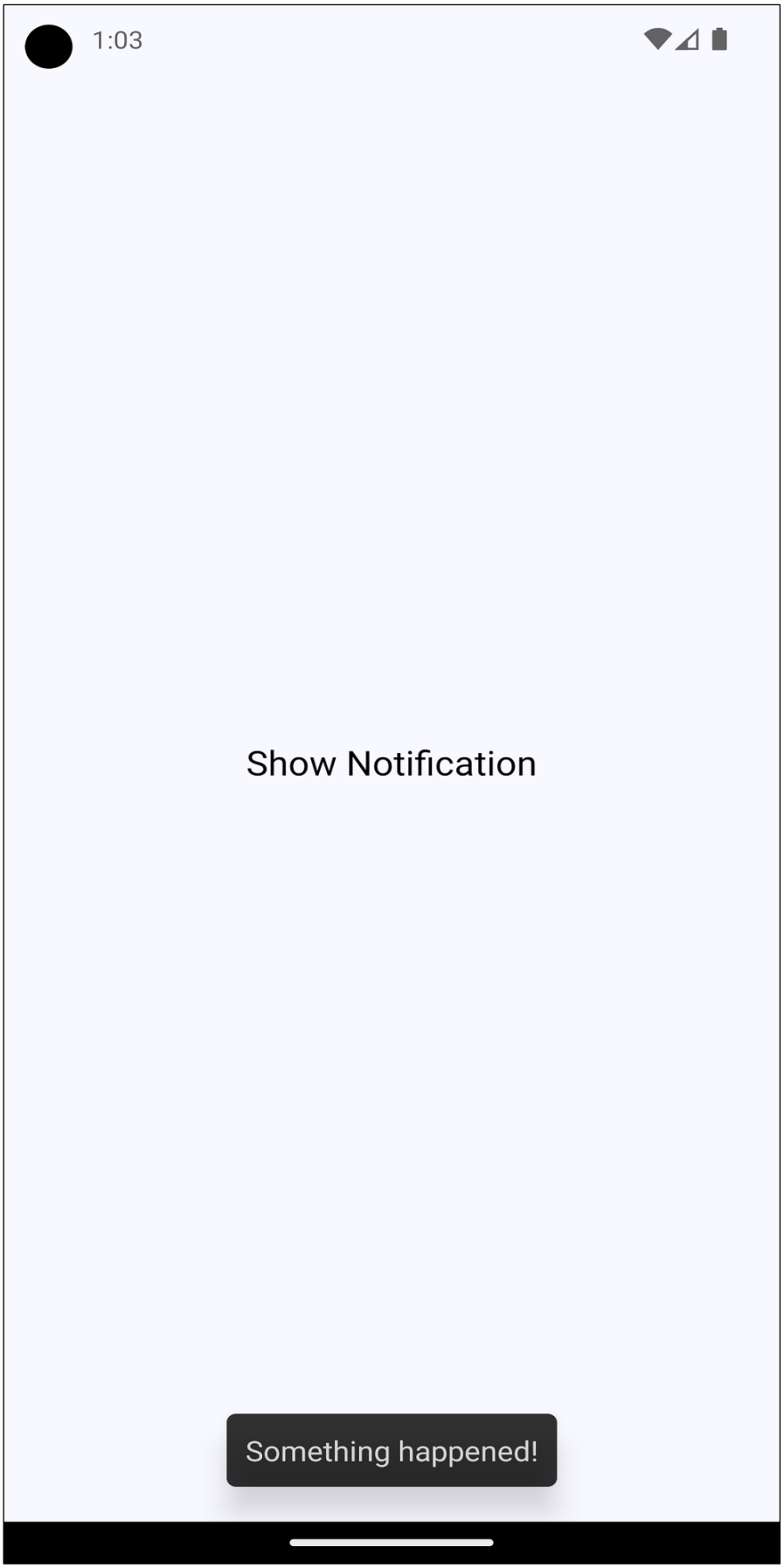


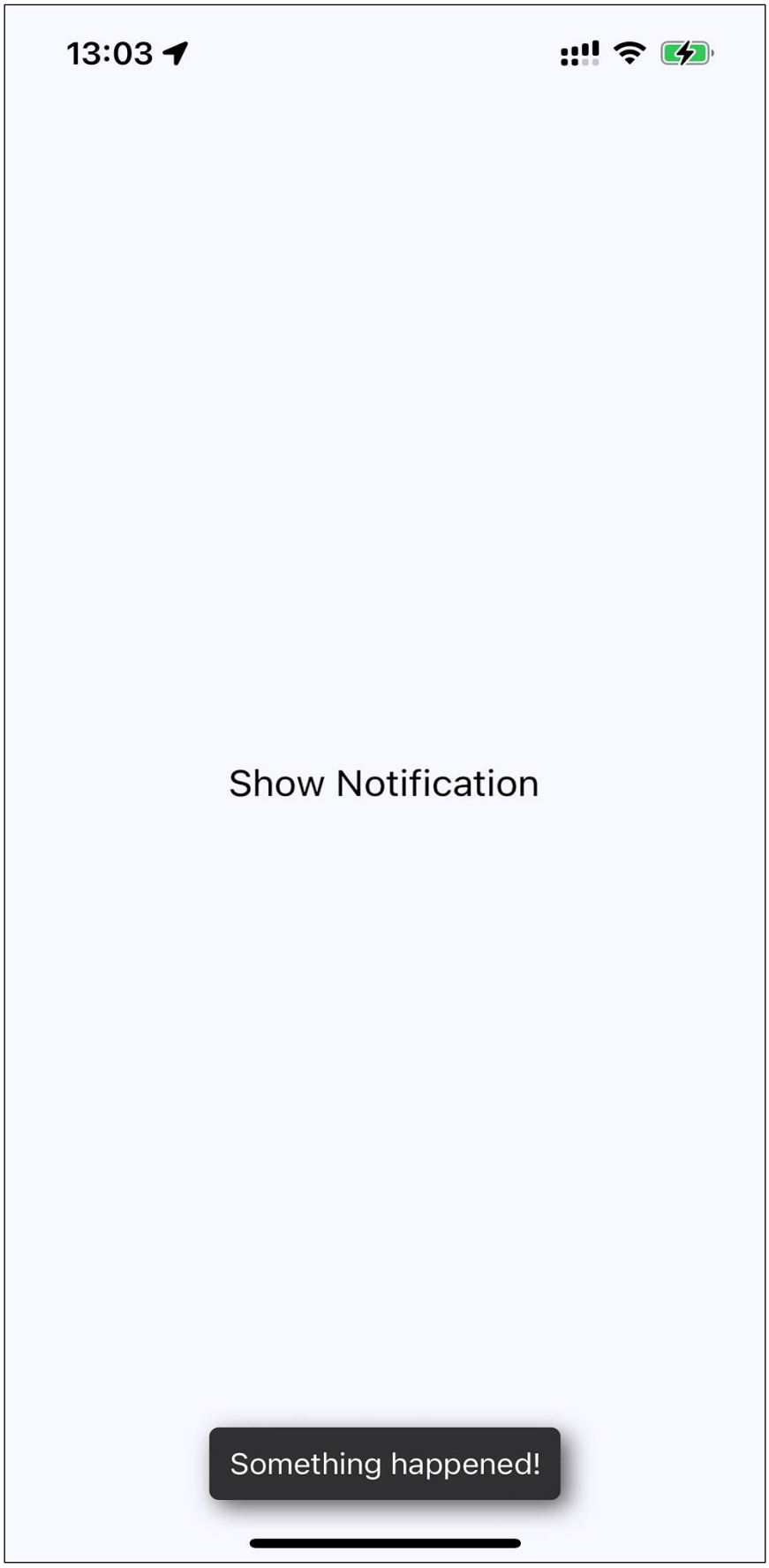

12:59
Are you sure?
For real?
Nope
Yep


12:59
Are you sure?
For real?
NOPE
YEP


13:01
Epic fail!
Fix it
Ignore it

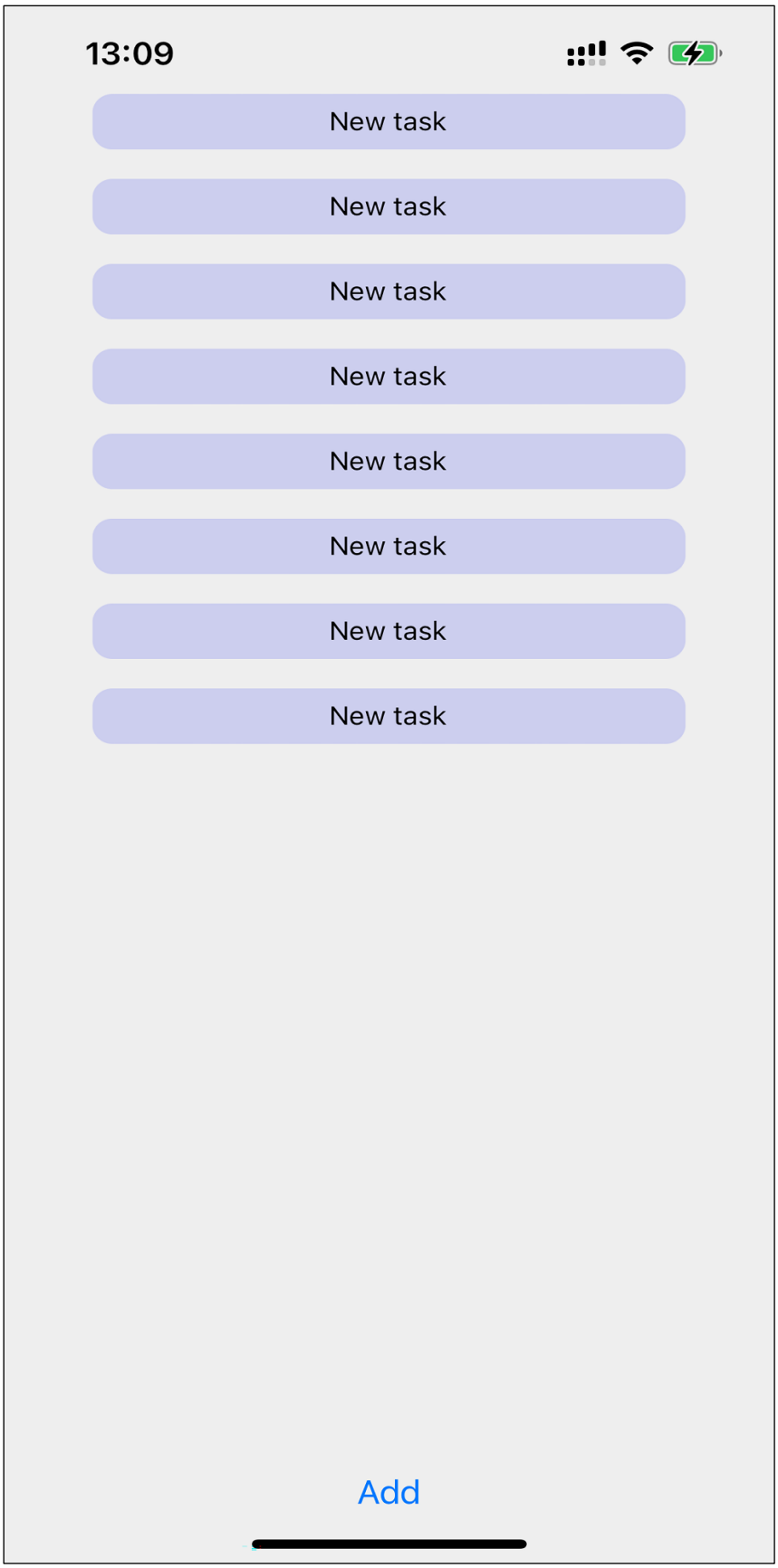

13:01
Failed to do the thing...
Dismiss

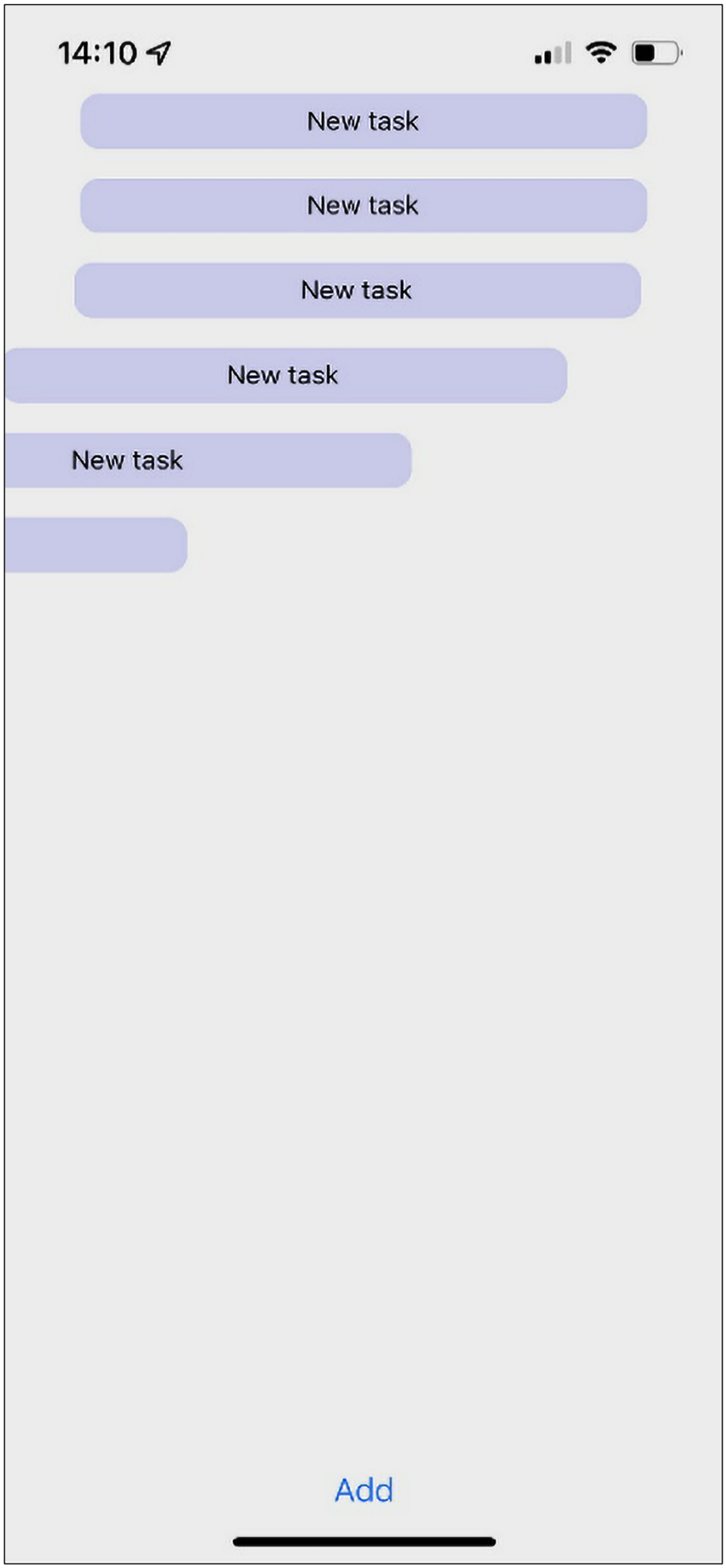

1:03
Show Notification
Something happened!

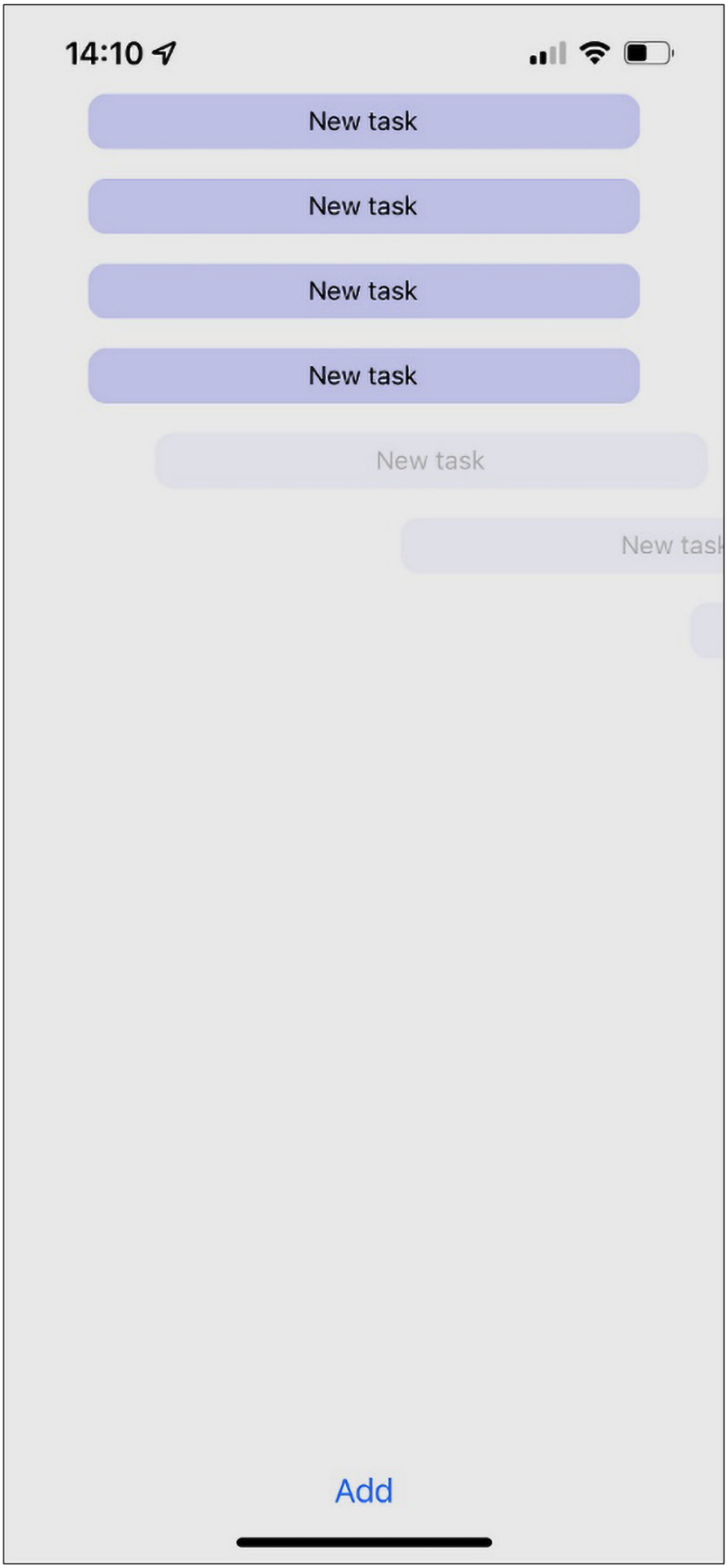

13:03
Show Notification
Something happened!

13:06
Fetch Stuff...

Chapter 26: Using Animations

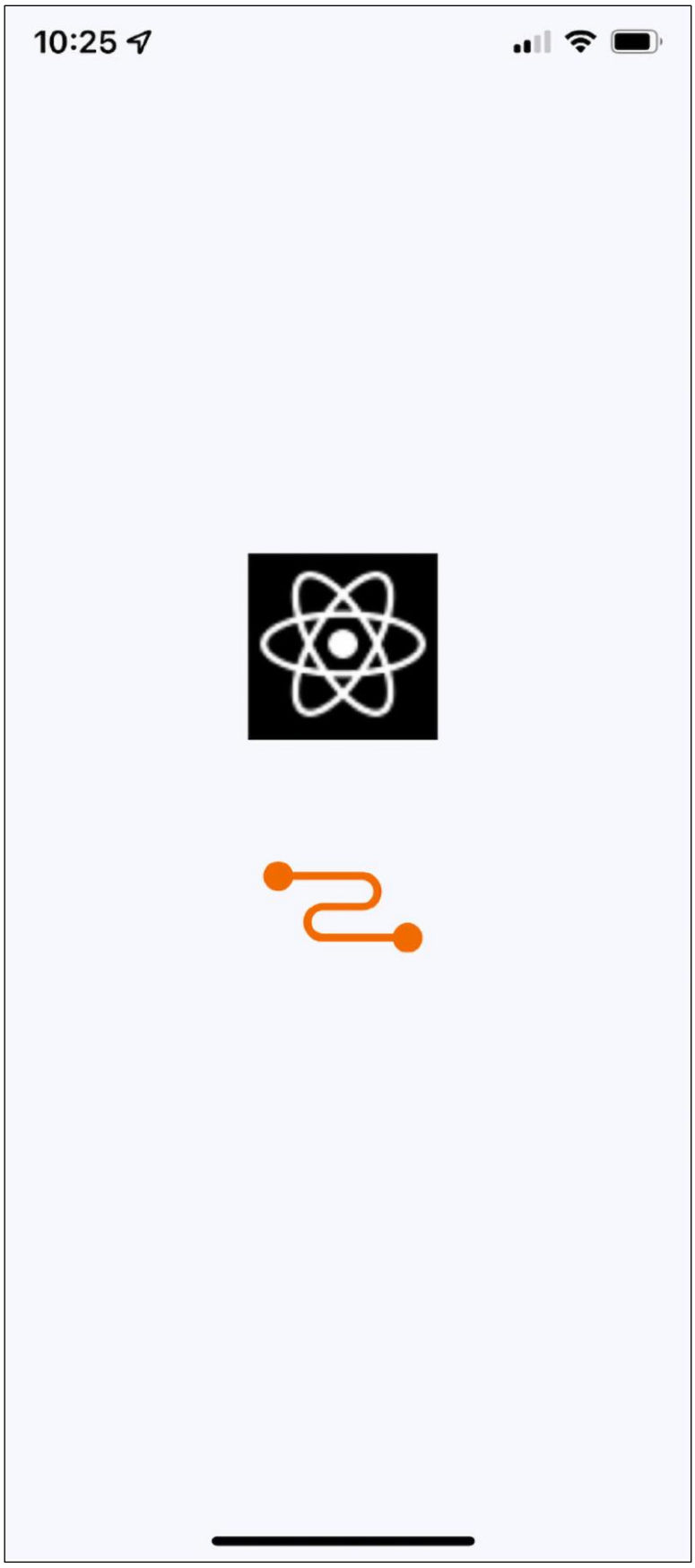


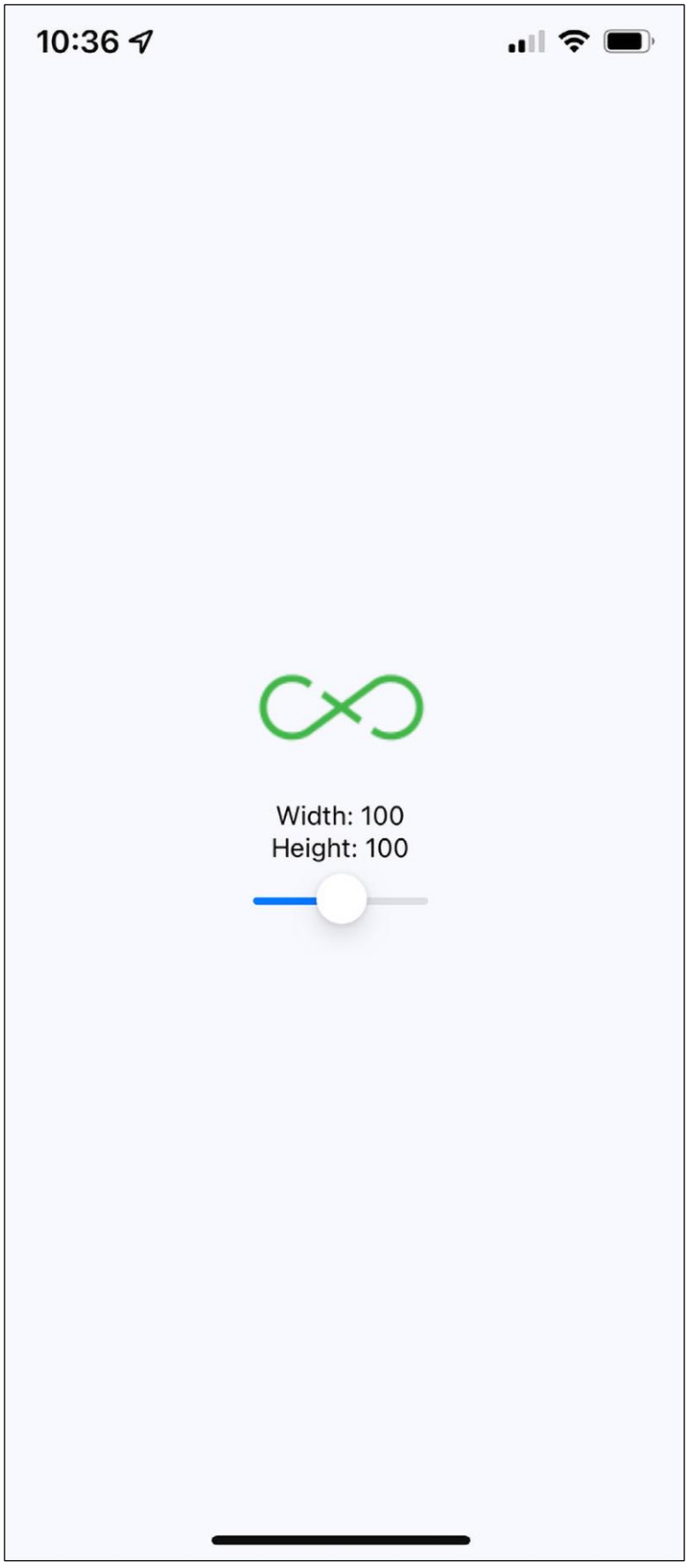

14:10
New task
New task
New task
New task
New task
Add

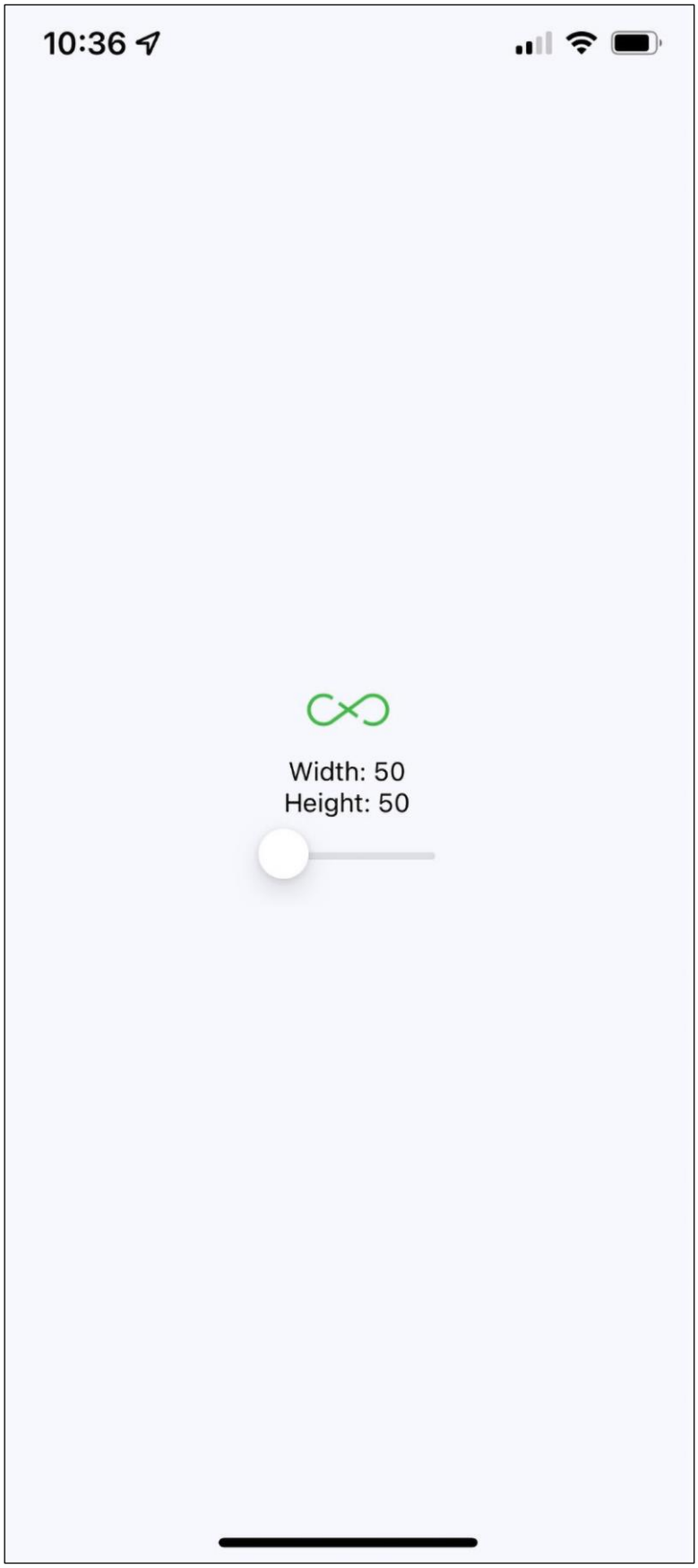

14:10
New task
New task
New task
New task
New task
New task
Add

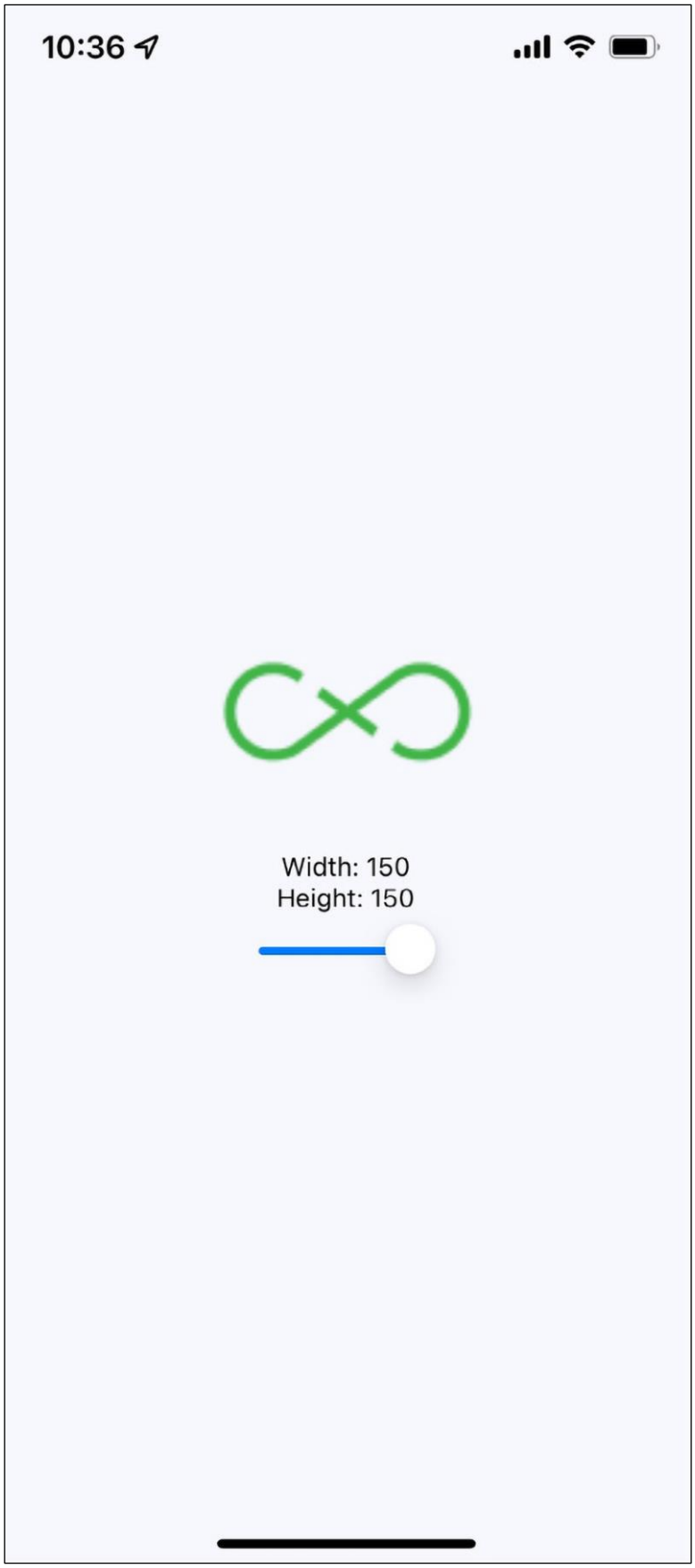
Press me
Press me
Press me

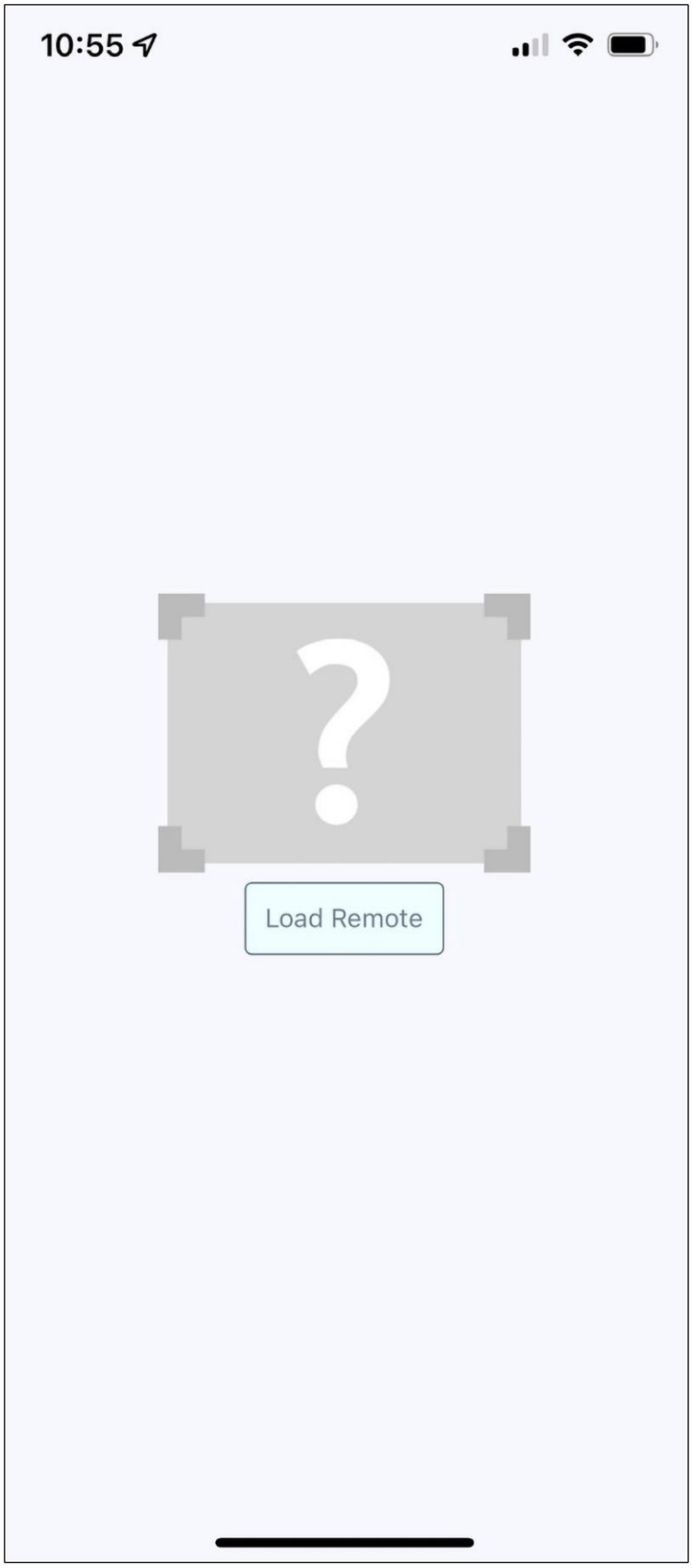
Chapter 27: Controlling Image Display

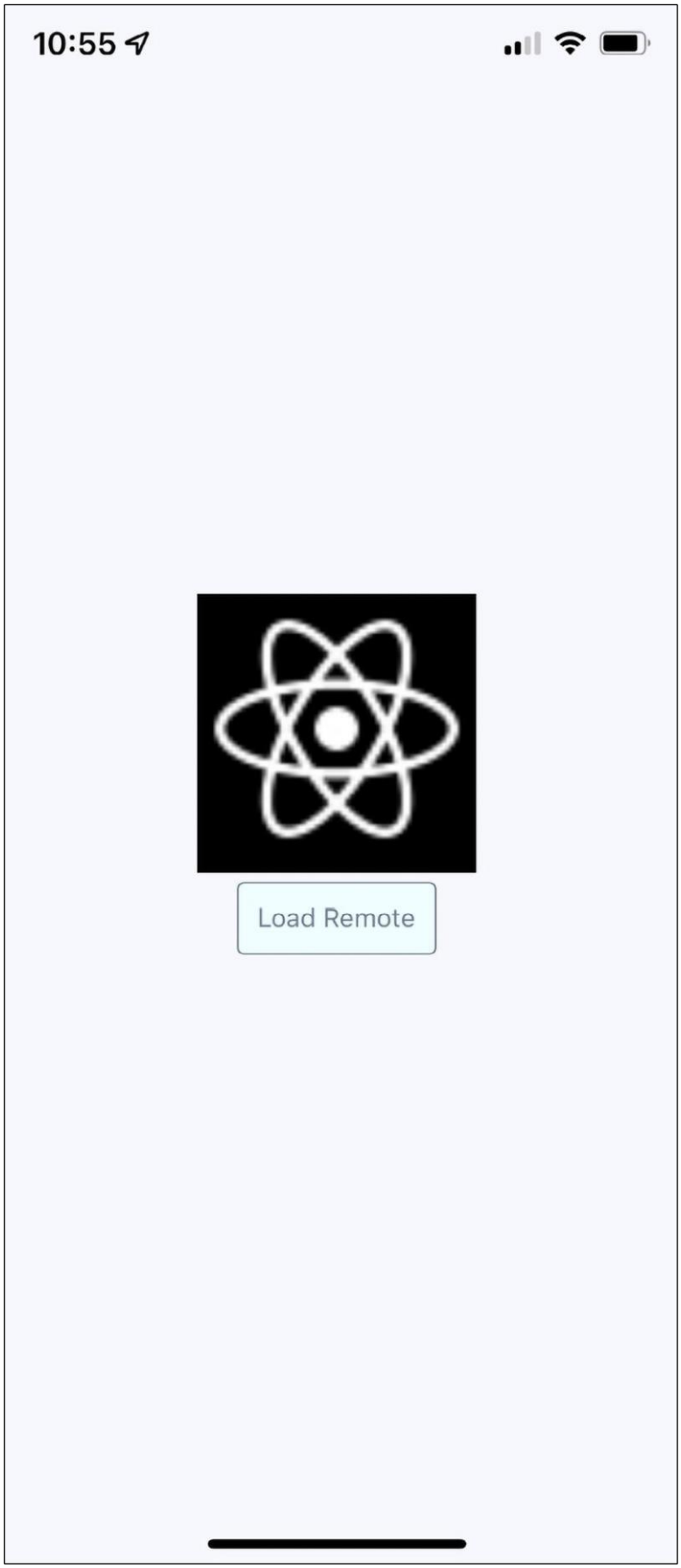


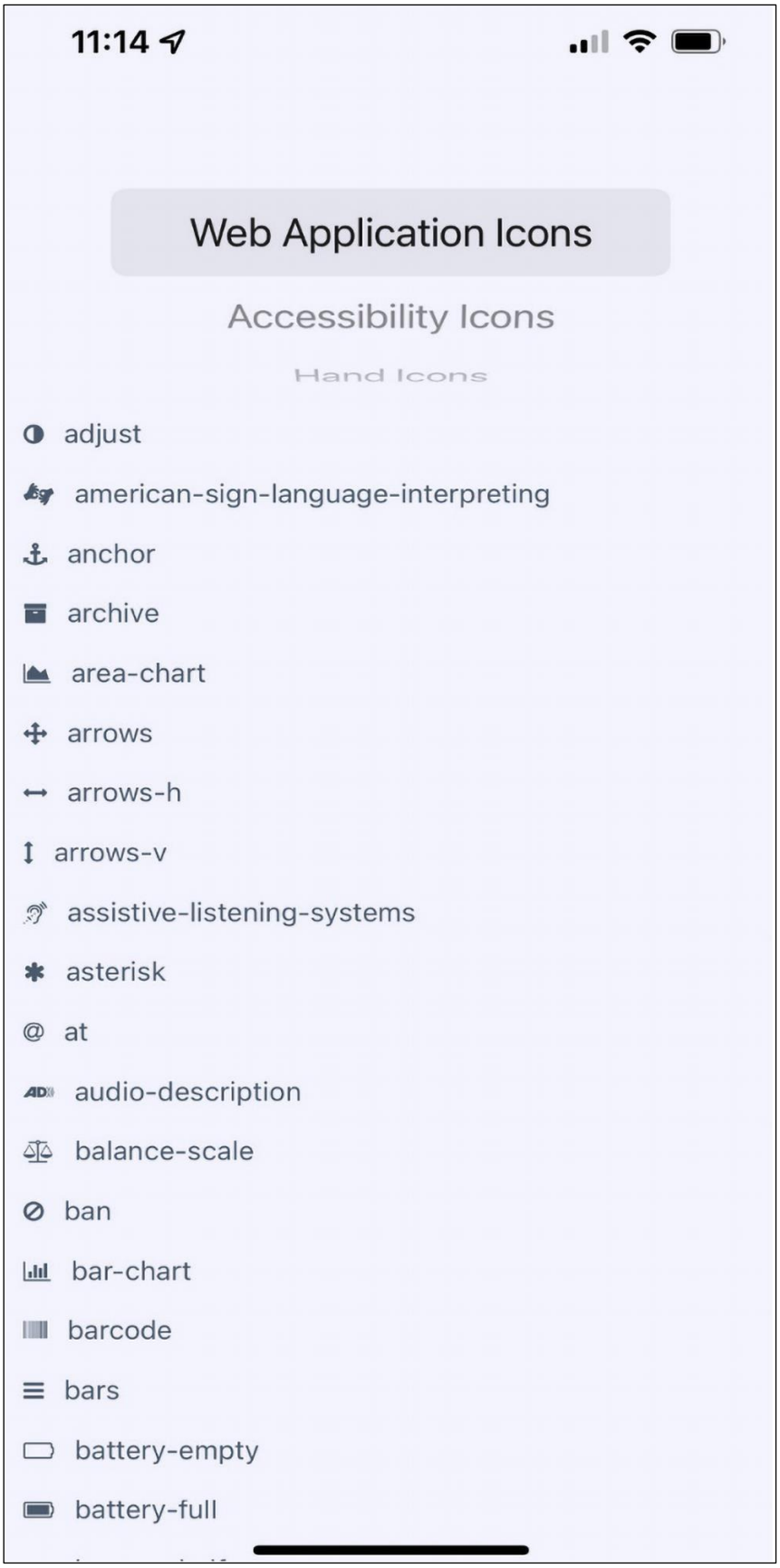

10:36
Width: 100
Height: 100


10:36
Width: 50
Height: 50

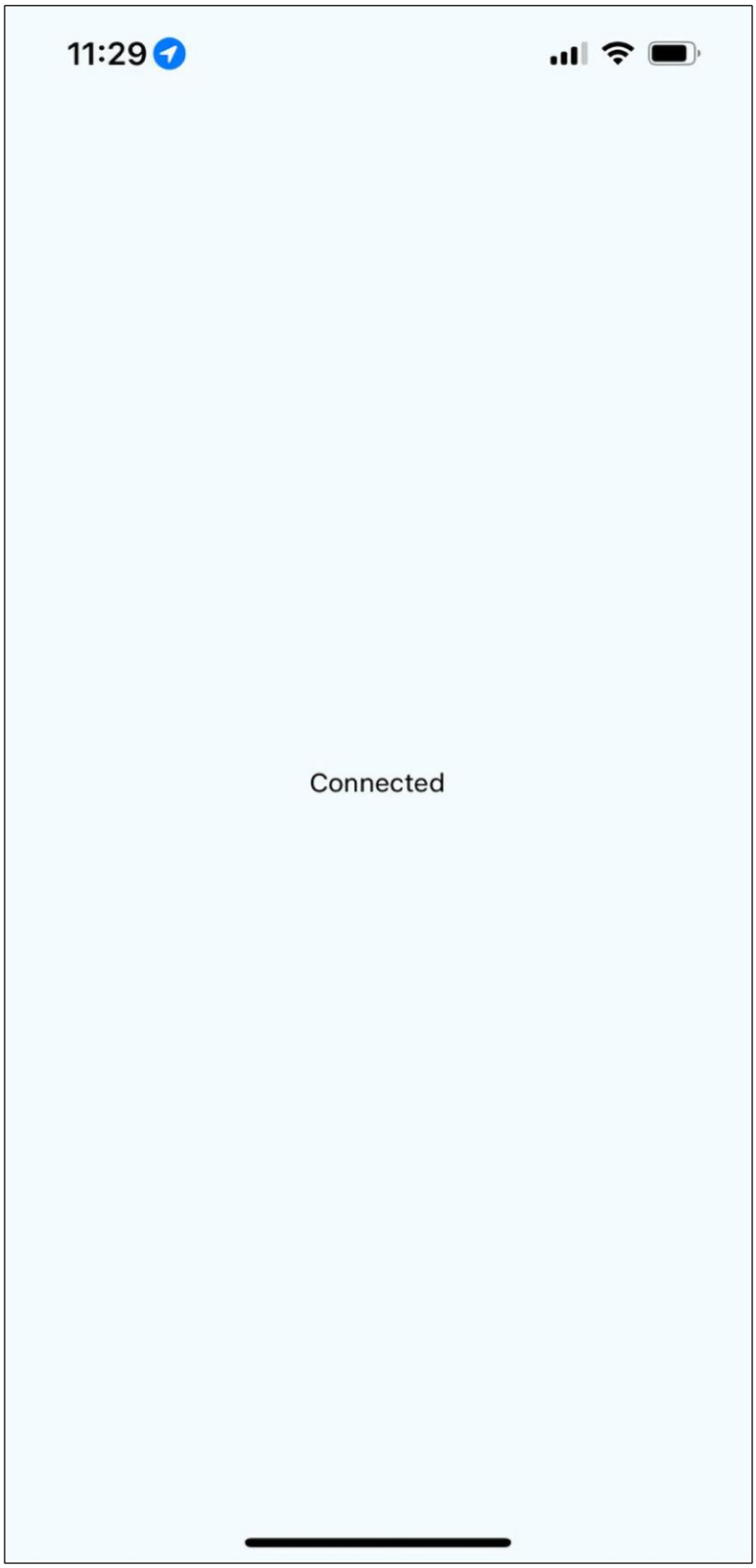

10:36
Width: 150
Height: 150

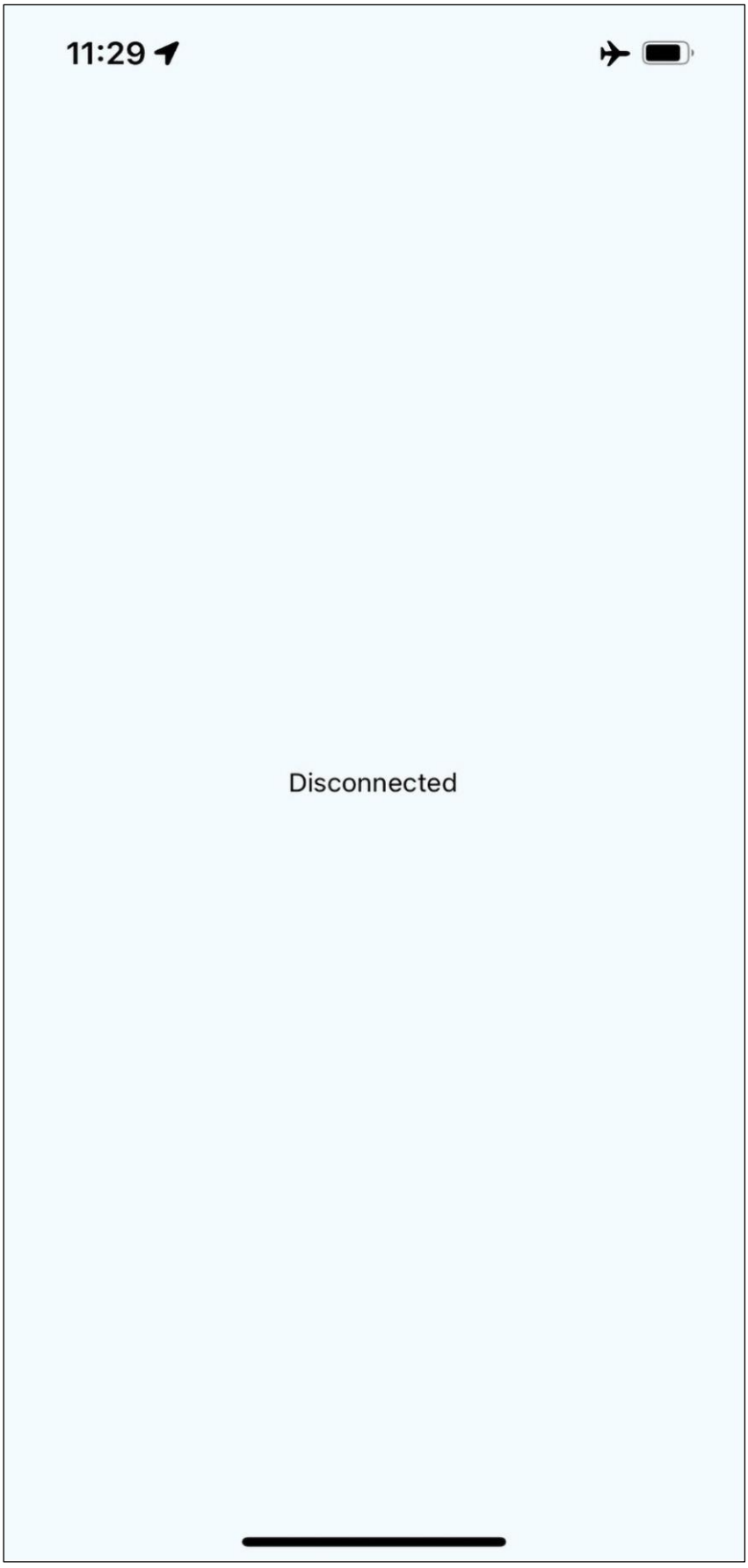

10:55
Load Remote

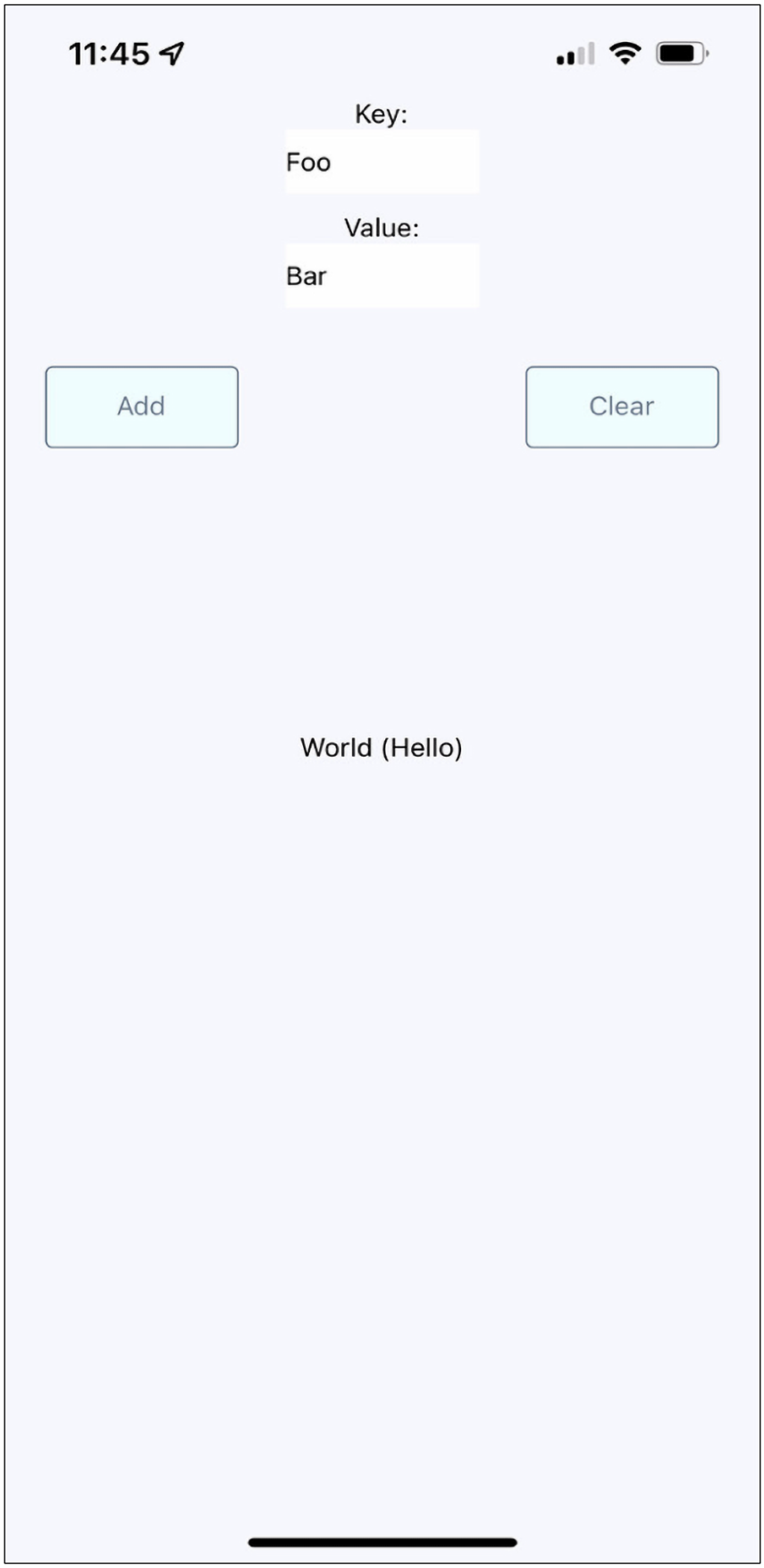

10:55
Load Remote

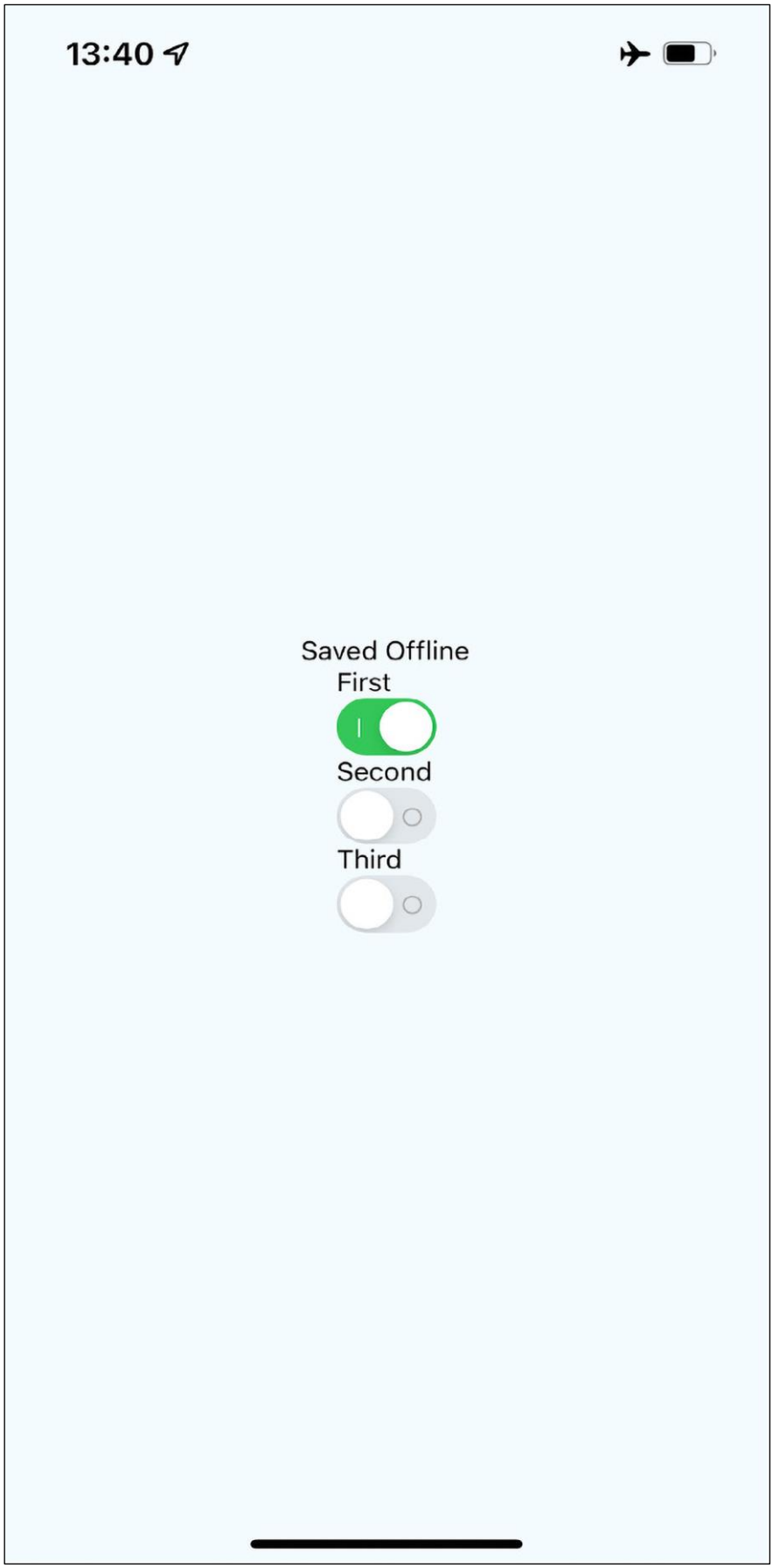

11:14
Web Application Icons
Accessibility Icons
Hand Icons
adjust
american-sign-language-interpreting
anchor
archive
area-chart
arrows
arrows-h
arrows-v
assistive-listening-systems
asterisk
at
audio-description
balance-scale
ban
bar-chart
barcode
bars
battery-empty
battery-full

Chapter 28: Going Offline




11:29
Disconnected


11:45
Key:
Foo
Value:
Bar
Add
Clear
World (Hello)


13:40
Saved Offline
First
Second
Third