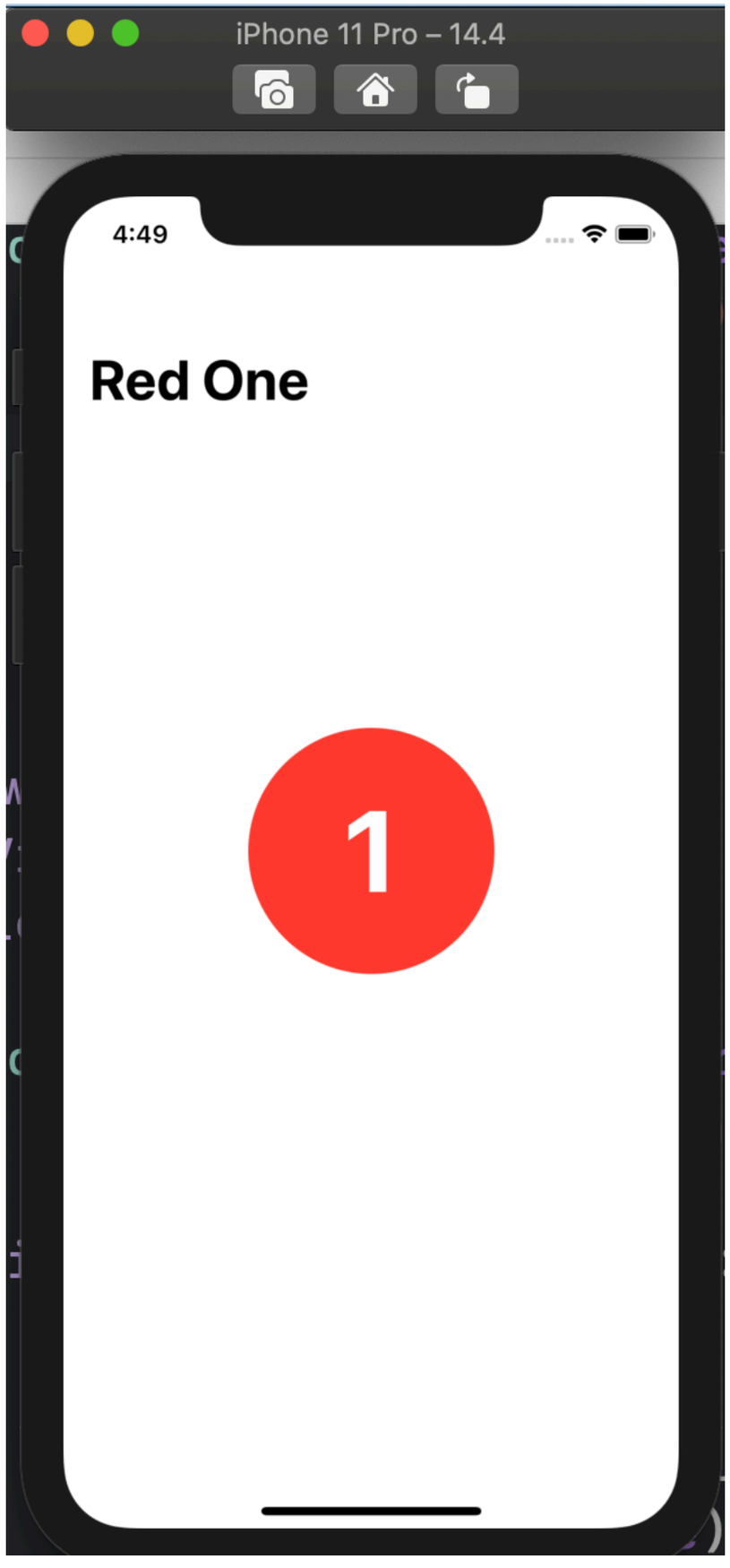
Navigation view and link

遞迴畫面設計

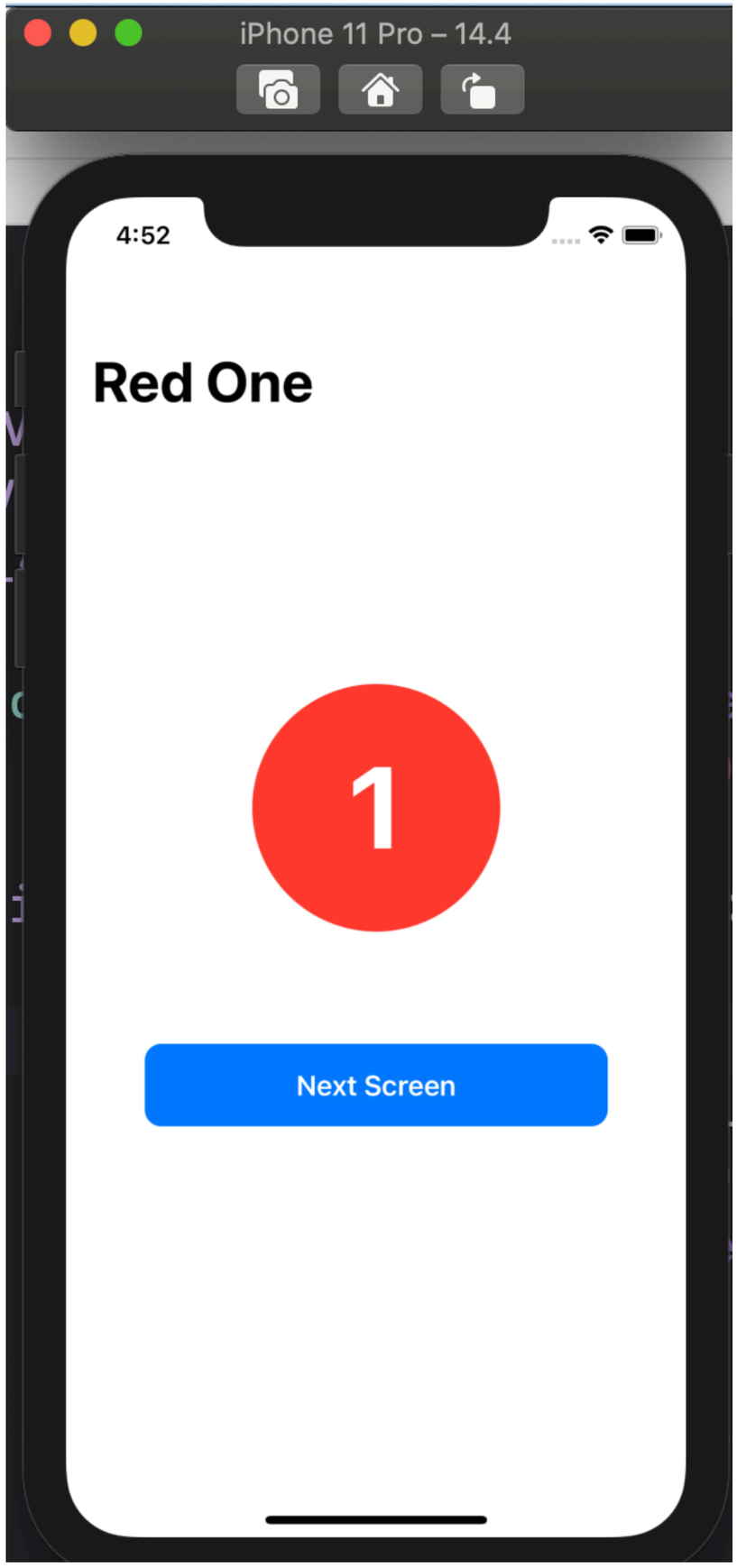
步驟一

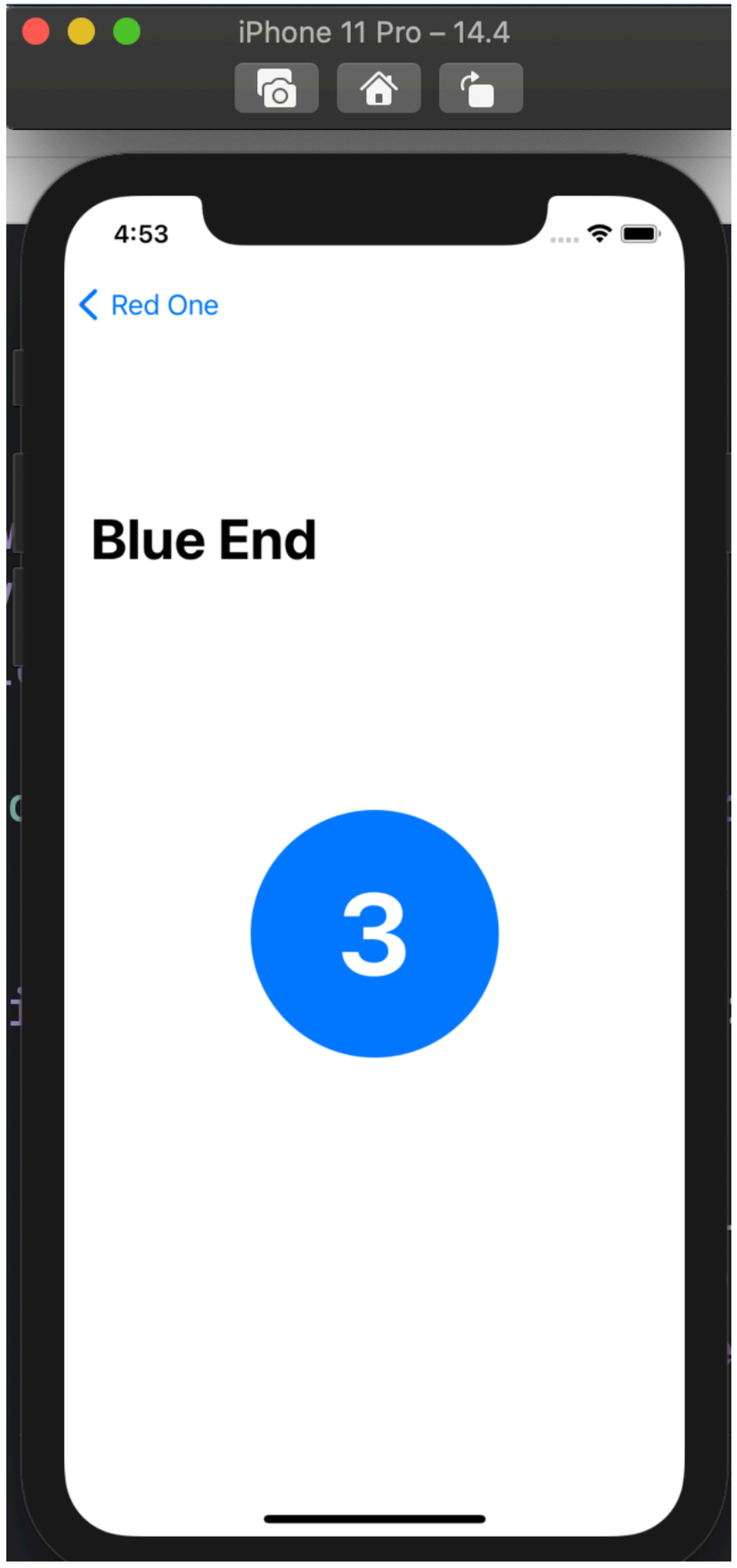

iPhone 11 Pro – 14.4
4:49
Red One
1

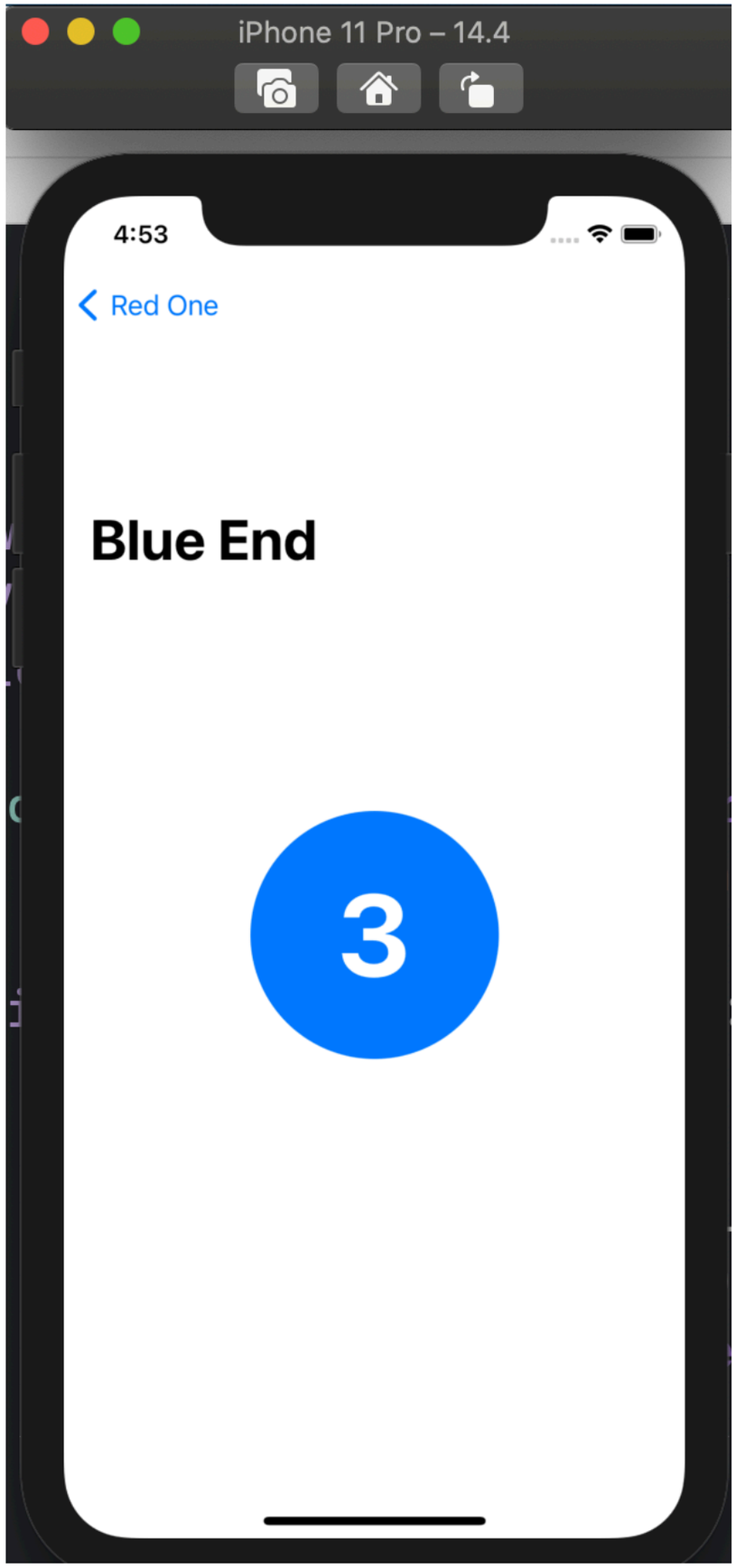
```
9
10  struct ContentView: View {
11      var body: some View {
12          NavigationView{
13              VStack{
14                  CircleNumberView(color: .red, number: 1)
15                      .navigationTitle("Red One")
16                      .offset(y: -60)
17              }
18          }
19      }
20  }
21
```

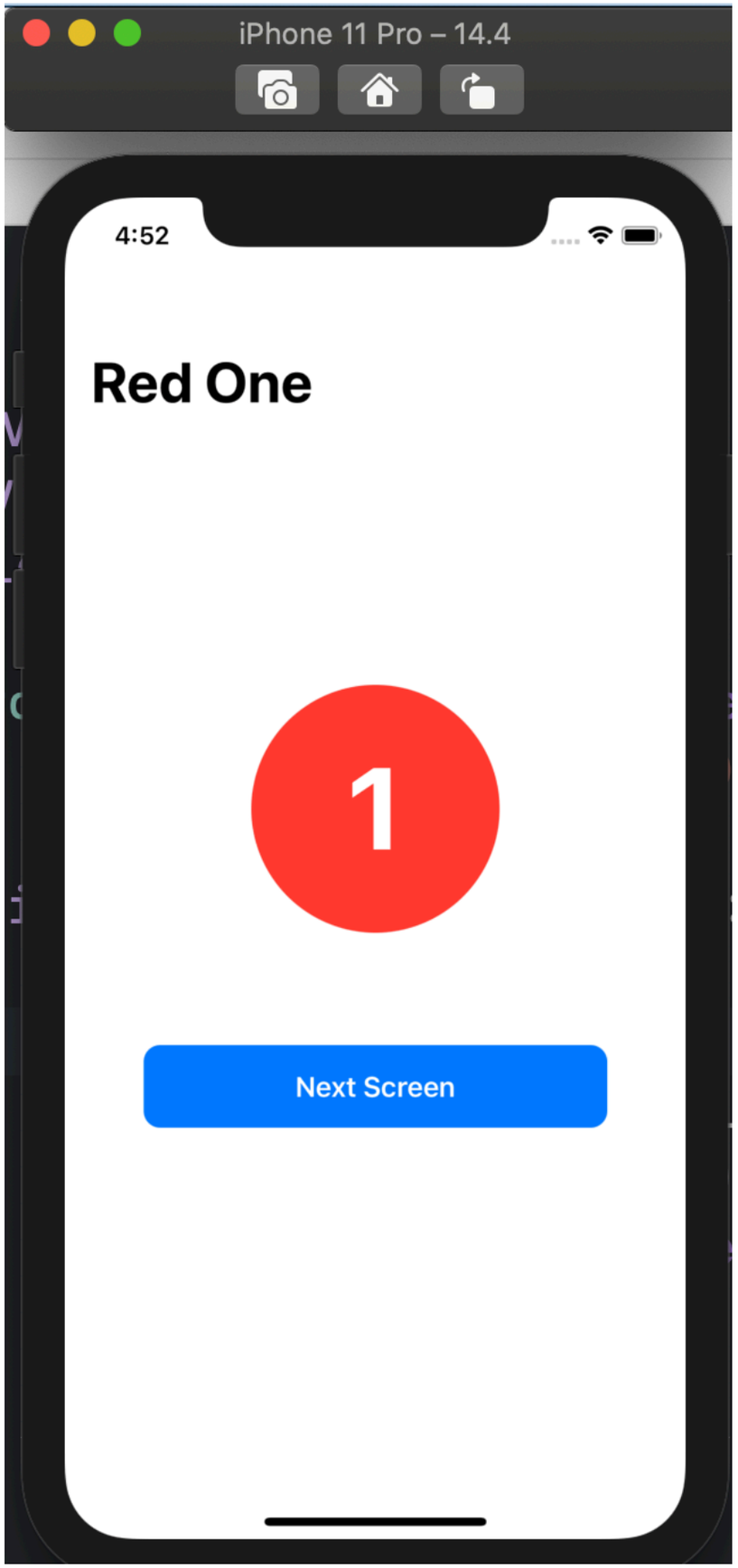
```swift
struct CircleNumberView: View {
    var color: Color
    var number: Int
    var body: some View{
        ZStack {
            Circle()
                .frame(width: 150, height: 150)
                .foregroundColor(color)
            Text("\(number)")
                .foregroundColor(.white)
                .font(.system(size: 70, weight: .bold ))
        }
    }
}
```

步驟二


iPhone 11 Pro – 14.4
4:52
Red One
1
Next Screen


iPhone 11 Pro – 14.4
4:53
Red One
Blue End
3

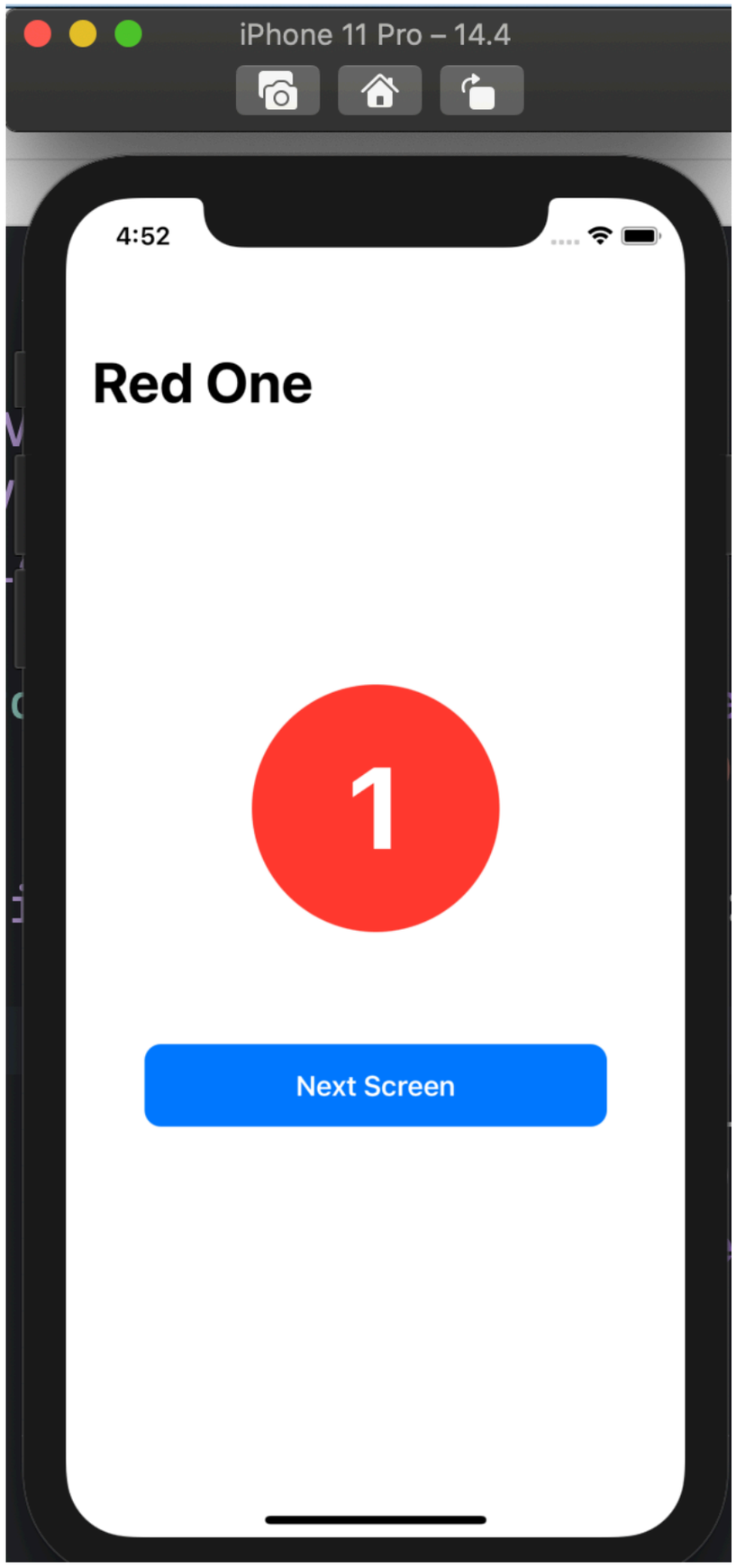

iPhone 11 Pro – 14.4
4:53
Red One
Blue End
3

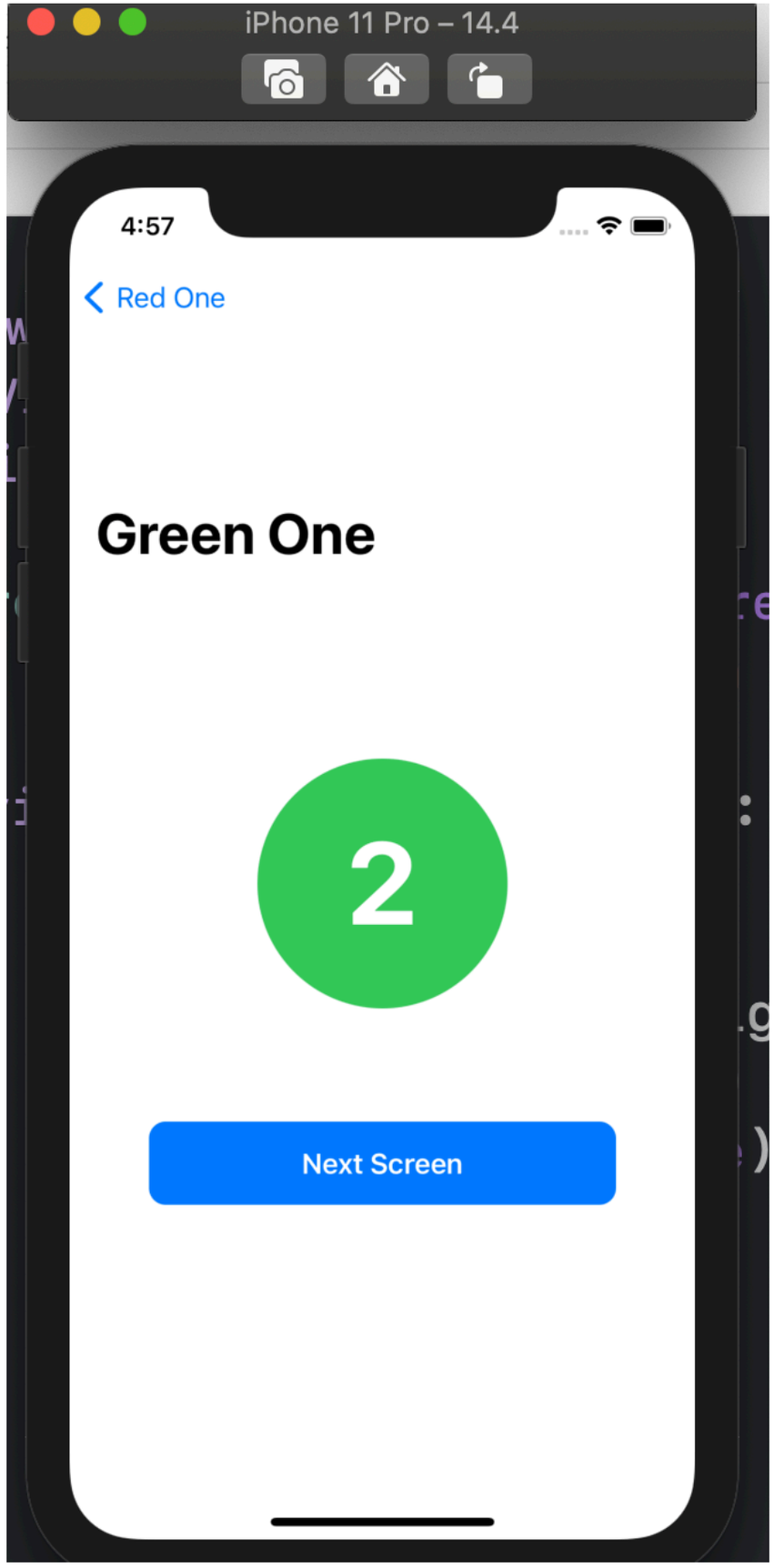

iPhone 11 Pro – 14.4
4:52
Red One
1
Next Screen

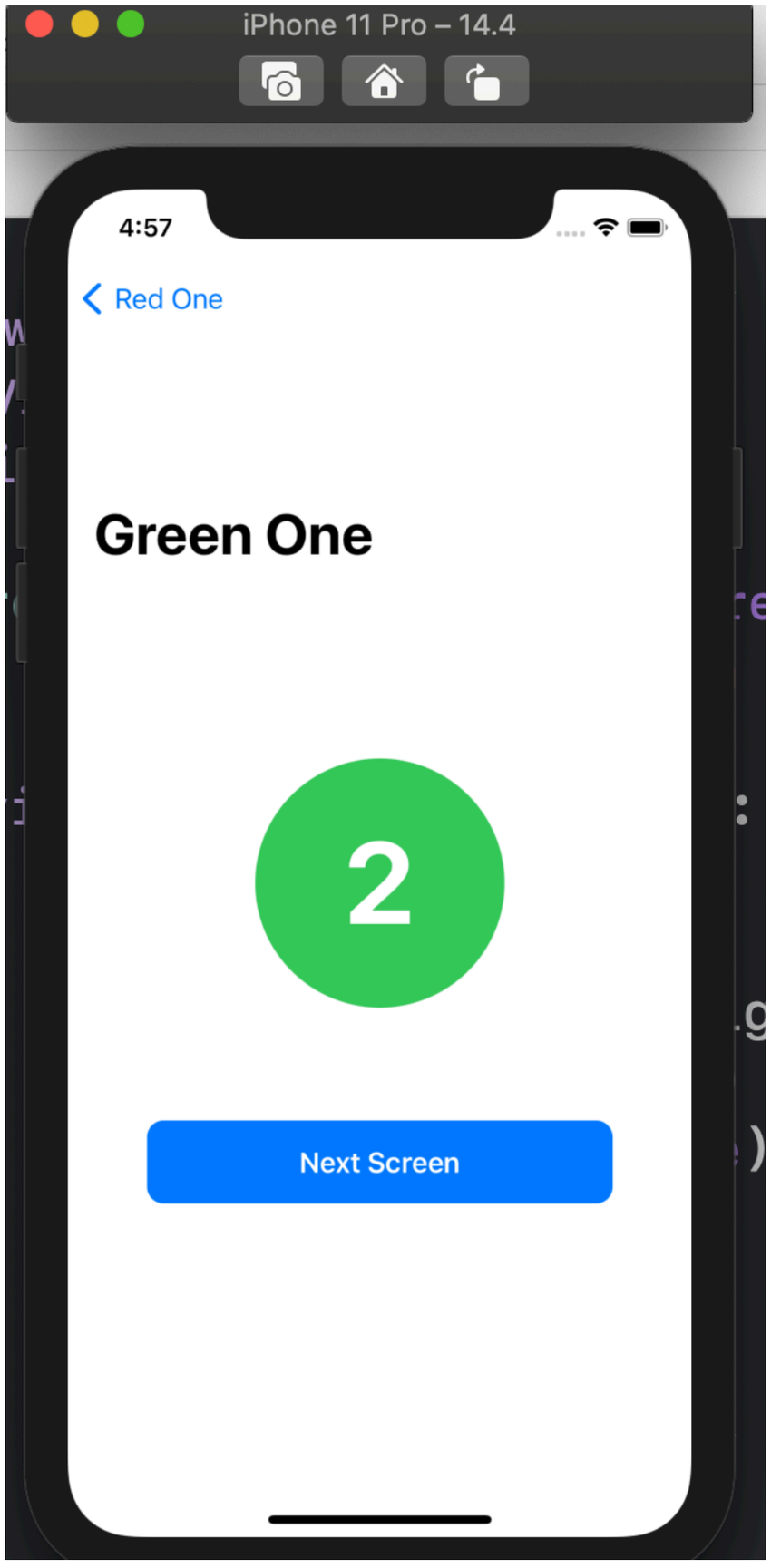
```
struct ContentView: View {
    var body: some View {
        NavigationView{
            VStack{
                CircleNumberView(color: .red, number: 1)
                    .navigationTitle("Red One")
                    .offset(y: -60)
                NavigationLink(destination: TailView(), label: {
                    Text("Next Screen")
                    .bold()
                    .frame(width: 280, height:50)
                    .background(Color.blue)
                    .foregroundColor(.white)
                    .cornerRadius(10)
                })
            }
        }
    }
}
```

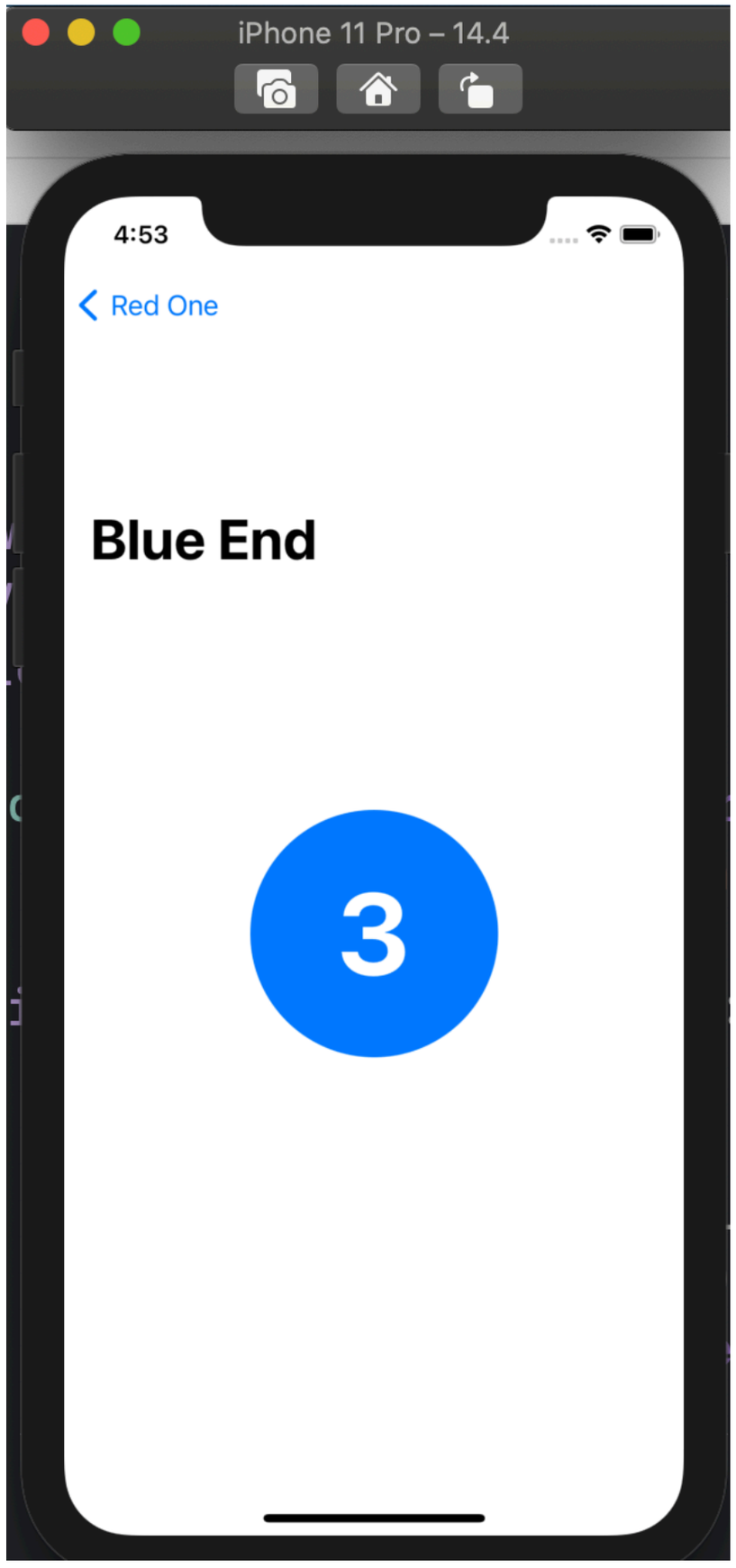
```
struct TailView: View {
    var body: some View {
        NavigationView{
            VStack{
                CircleNumberView(color: .blue, number: 3)
                    .navigationTitle("Blue End")
                    .offset(y: -60)
            }
        }
    }
}
```

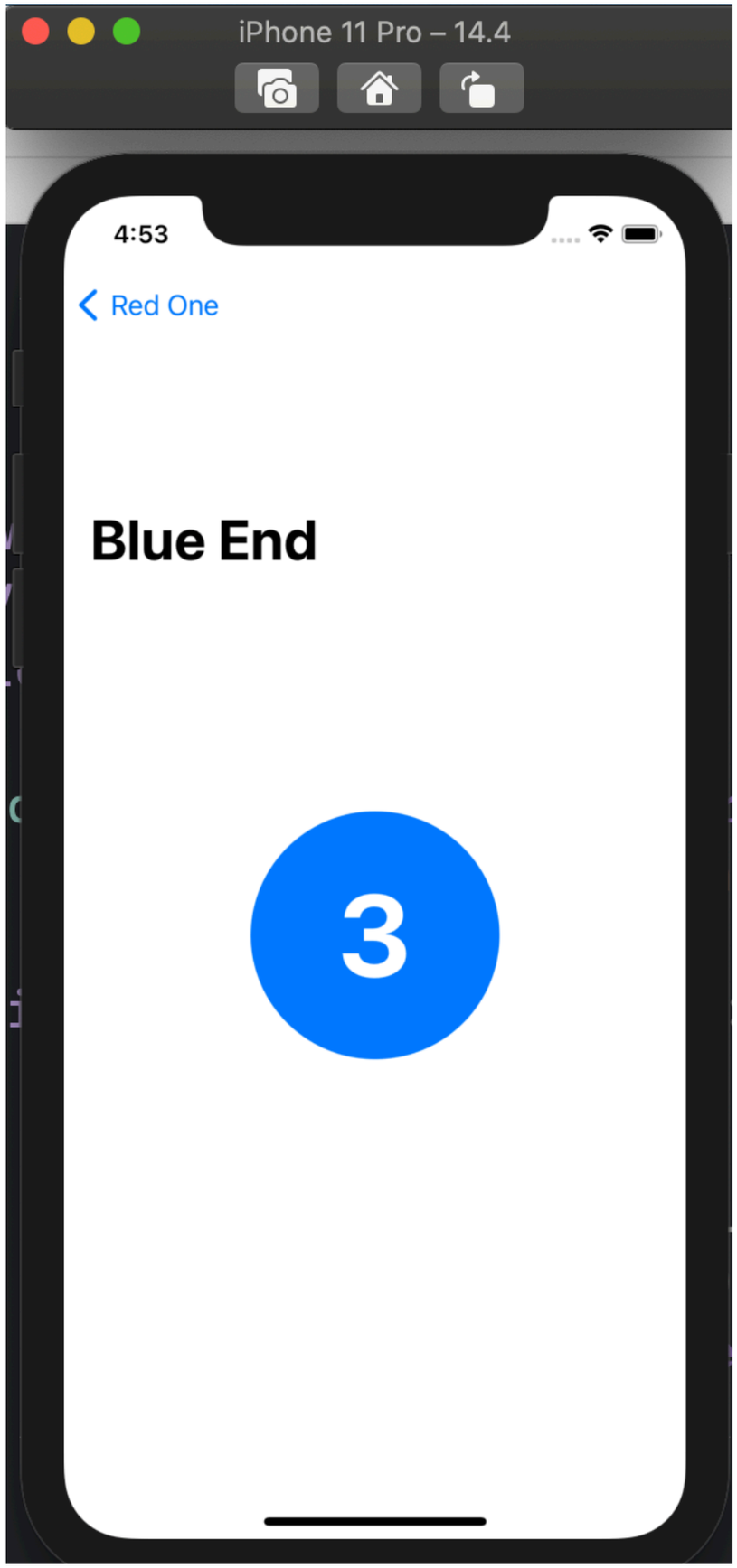
步驟三

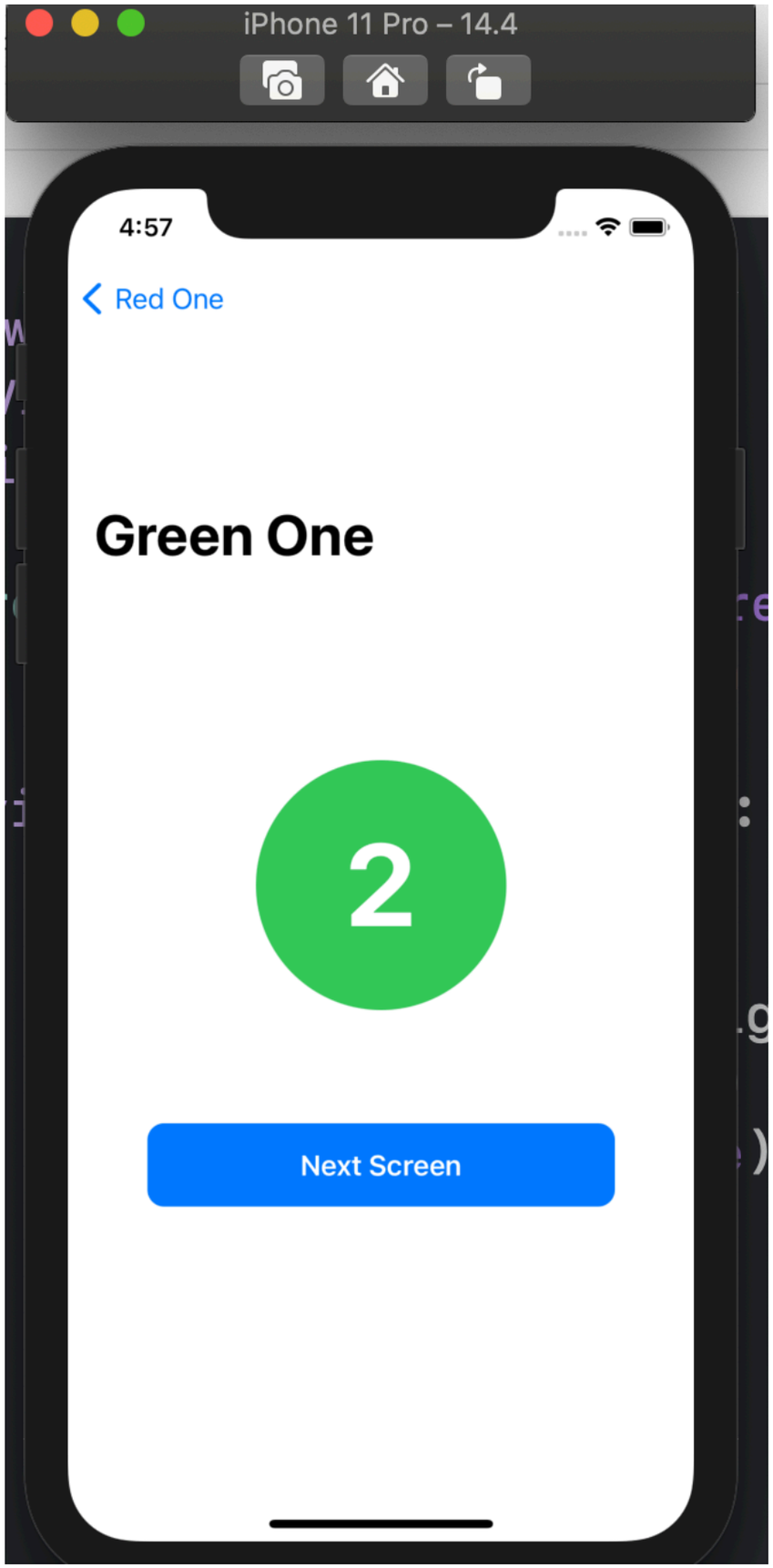

iPhone 11 Pro – 14.4
4:52
Red One
1
Next Screen

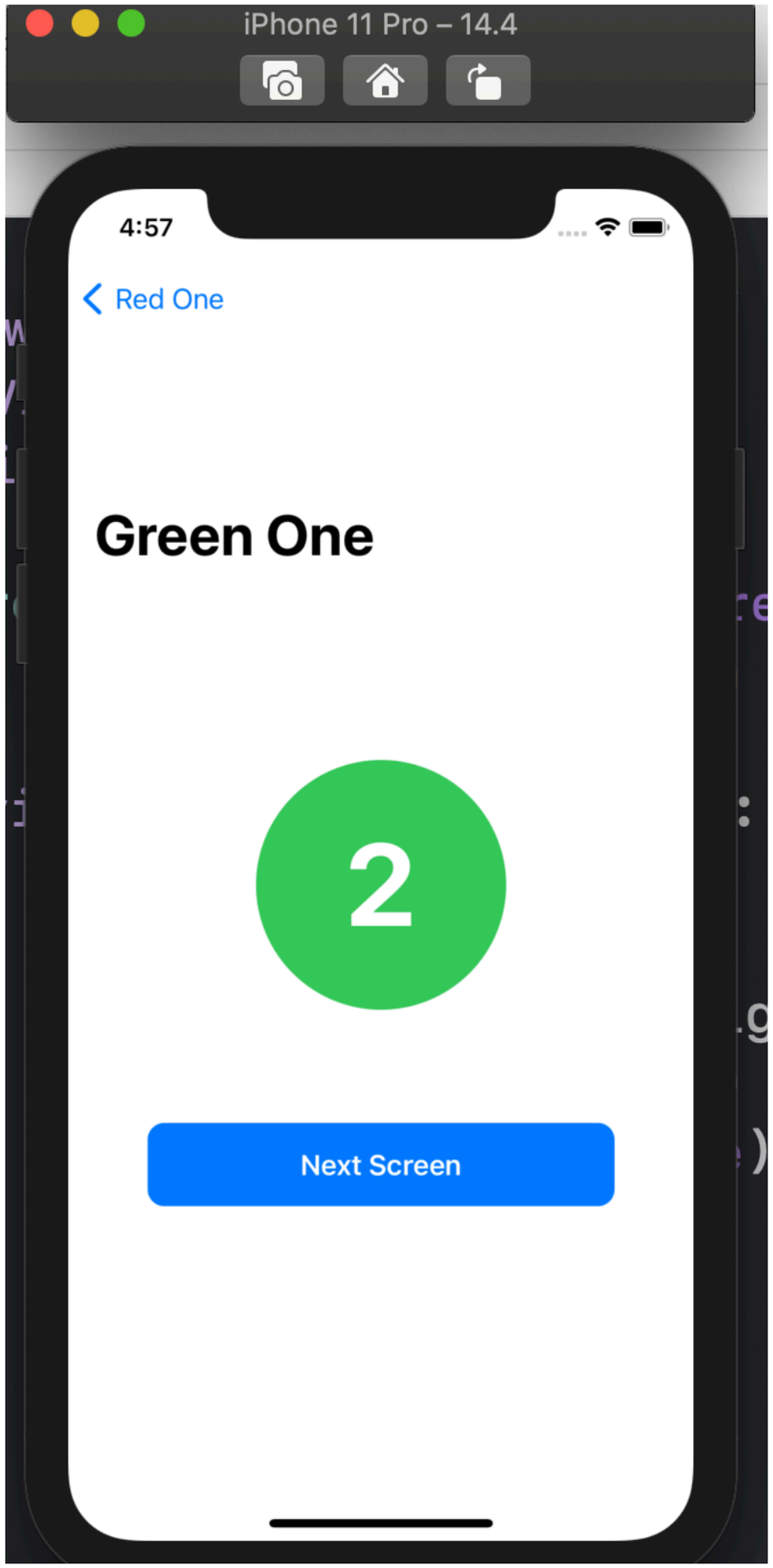

iPhone 11 Pro – 14.4
4:57
Red One
Green One
2
Next Screen

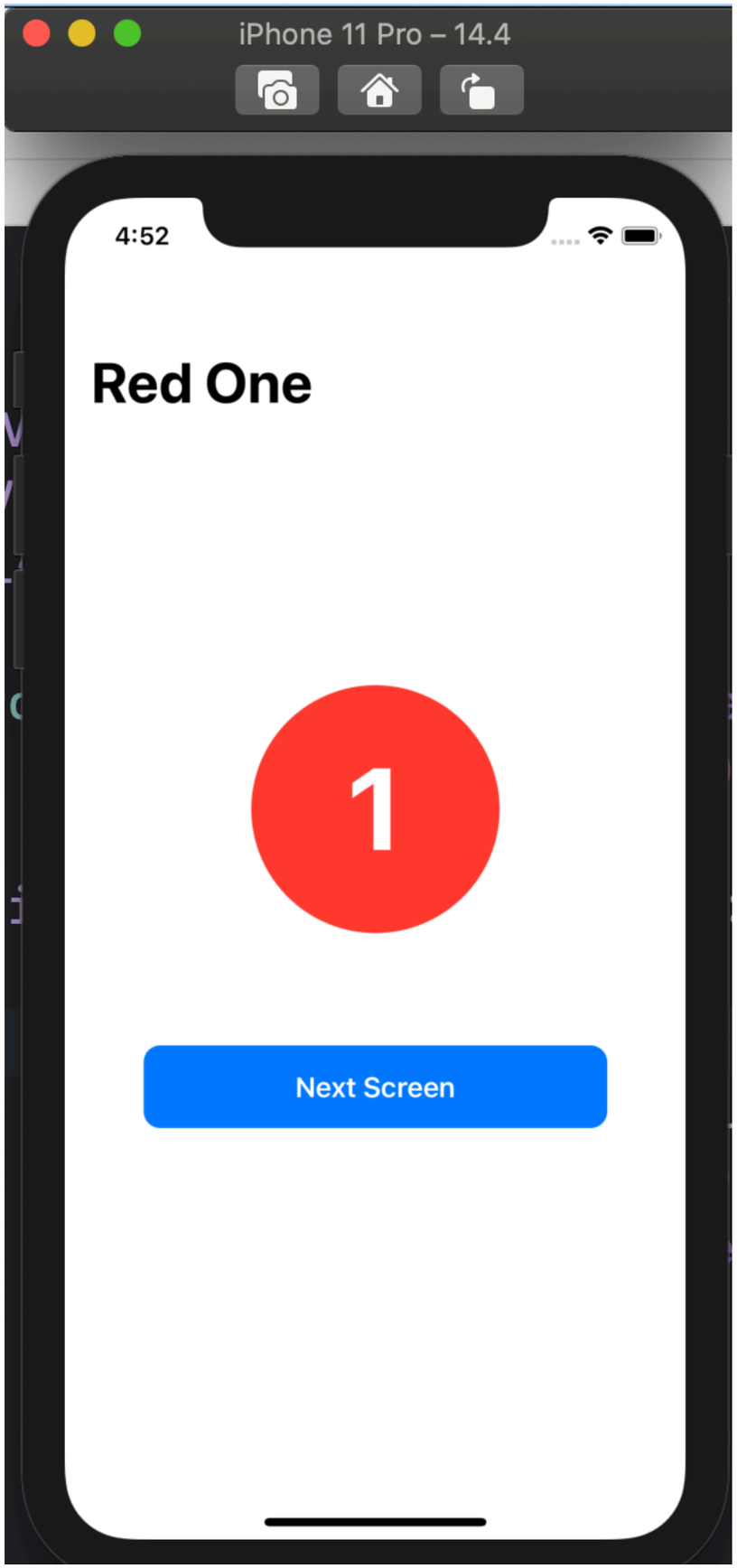

iPhone 11 Pro – 14.4
4:57
Red One
Green One
2
Next Screen


iPhone 11 Pro – 14.4
4:53
Red One
Blue End
3


iPhone 11 Pro – 14.4
4:53
Red One
Blue End
3


iPhone 11 Pro – 14.4
4:57
Red One
Green One
2
Next Screen


iPhone 11 Pro – 14.4
4:57
Red One
Green One
2
Next Screen


iPhone 11 Pro – 14.4
4:52
Red One
1
Next Screen

```
struct ContentView: View {
    var body: some View {
        NavigationView{
            VStack{
                CircleNumberView(color: .red, number: 1)
                    .navigationTitle("Red One")
                    .offset(y: -60)
                NavigationLink(destination: NodeView(), label: {
                    Text("Next Screen")
                    .bold()
                    .frame(width: 280, height:50)
                    .background(Color.blue)
                    .foregroundColor(.white)
                    .cornerRadius(10)
                })
            }
        }
    }
}
```

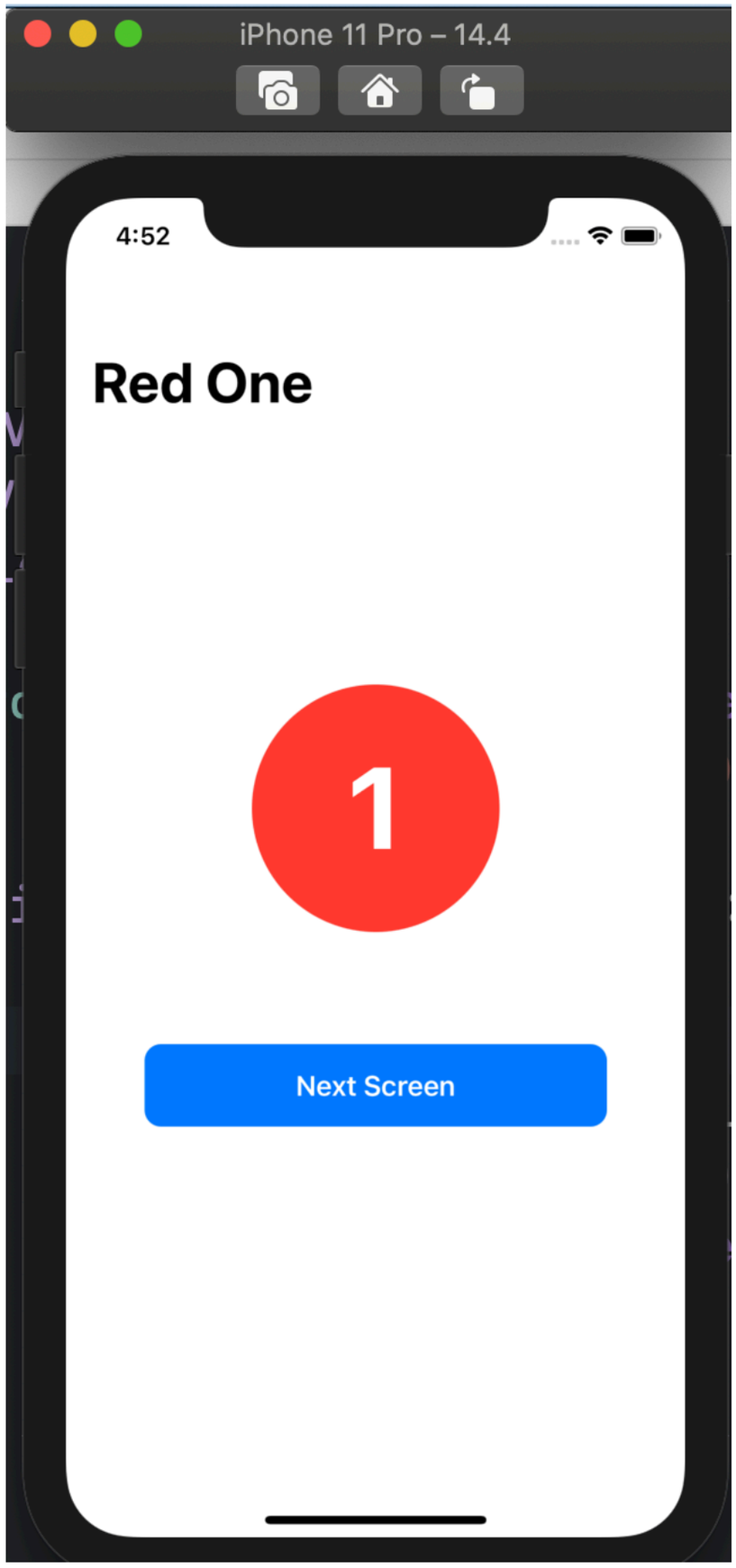
```
struct NodeView: View {
    var body: some View {
        NavigationView{
            VStack{
                CircleNumberView(color: .green, number: 2)
                    .navigationTitle("Green One")
                    .offset(y: -60)
                NavigationLink(destination: TailView(), label: {
                    Text("Next Screen")
                    .bold()
                    .frame(width: 280, height:50)
                    .background(Color.blue)
                    .foregroundColor(.white)
                    .cornerRadius(10)
                })
            }
        }
    }
}
```

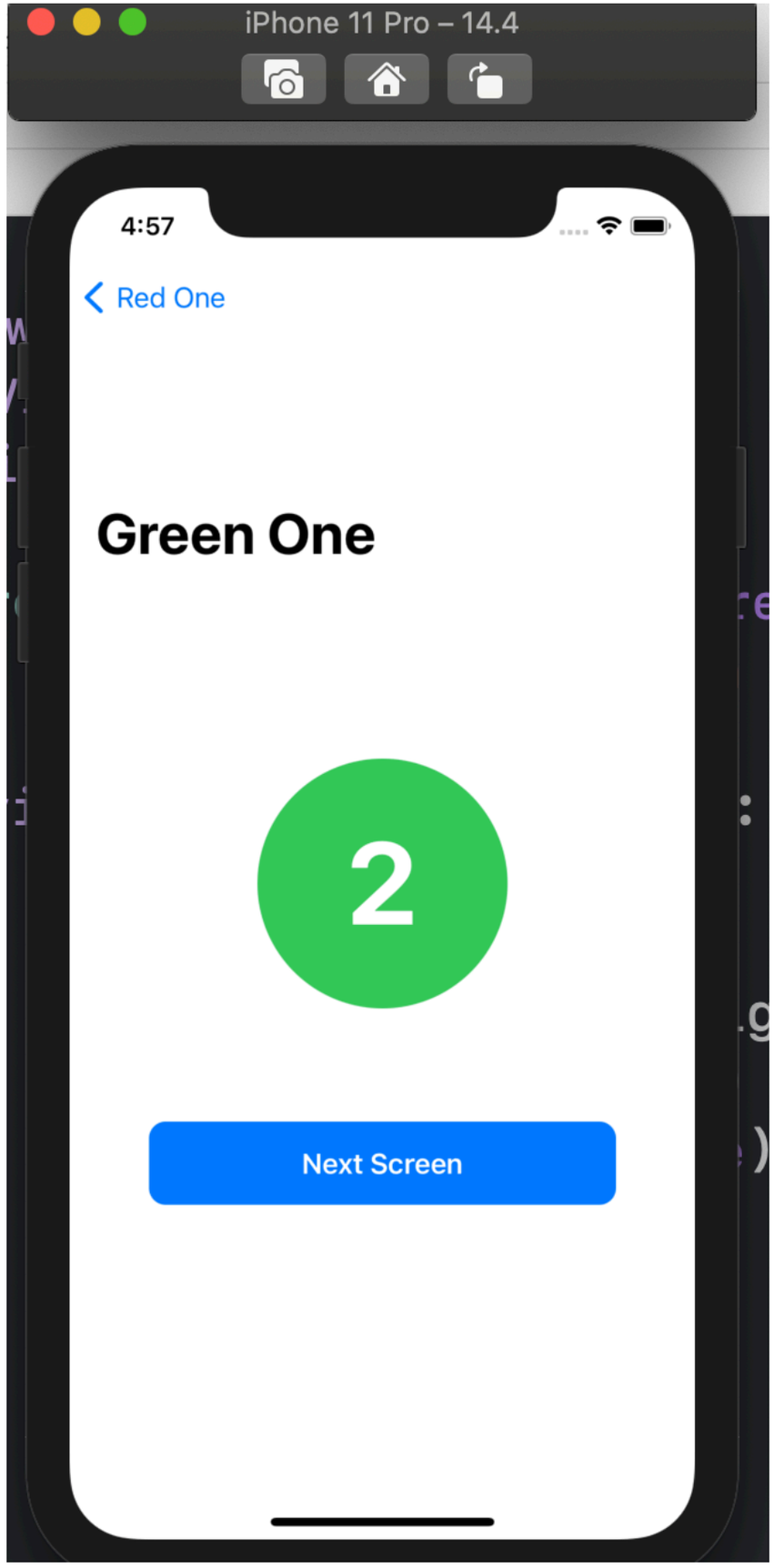
步驟四、使用遞迴架構設計四個畫面

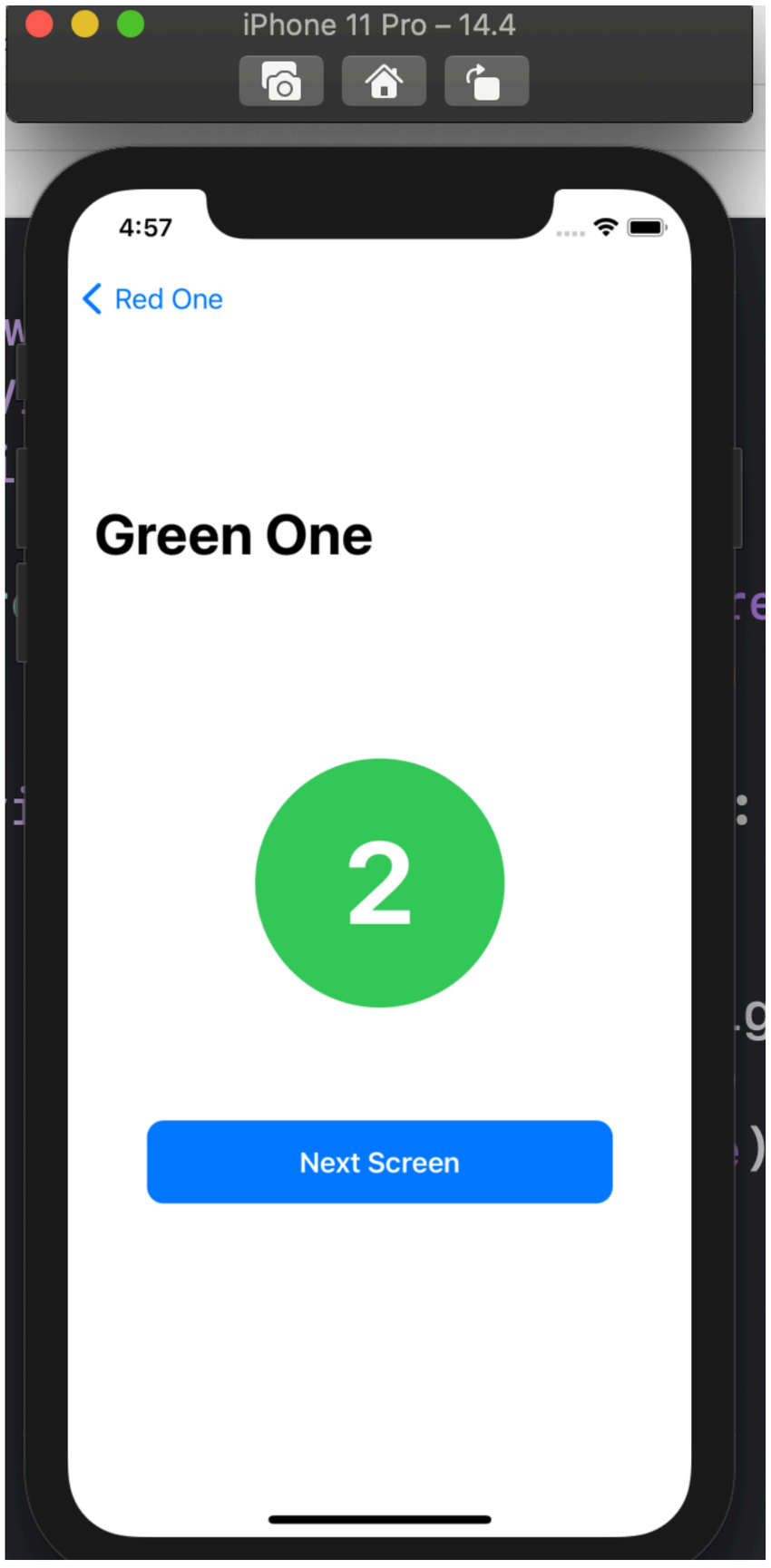
fac(5) = 5!

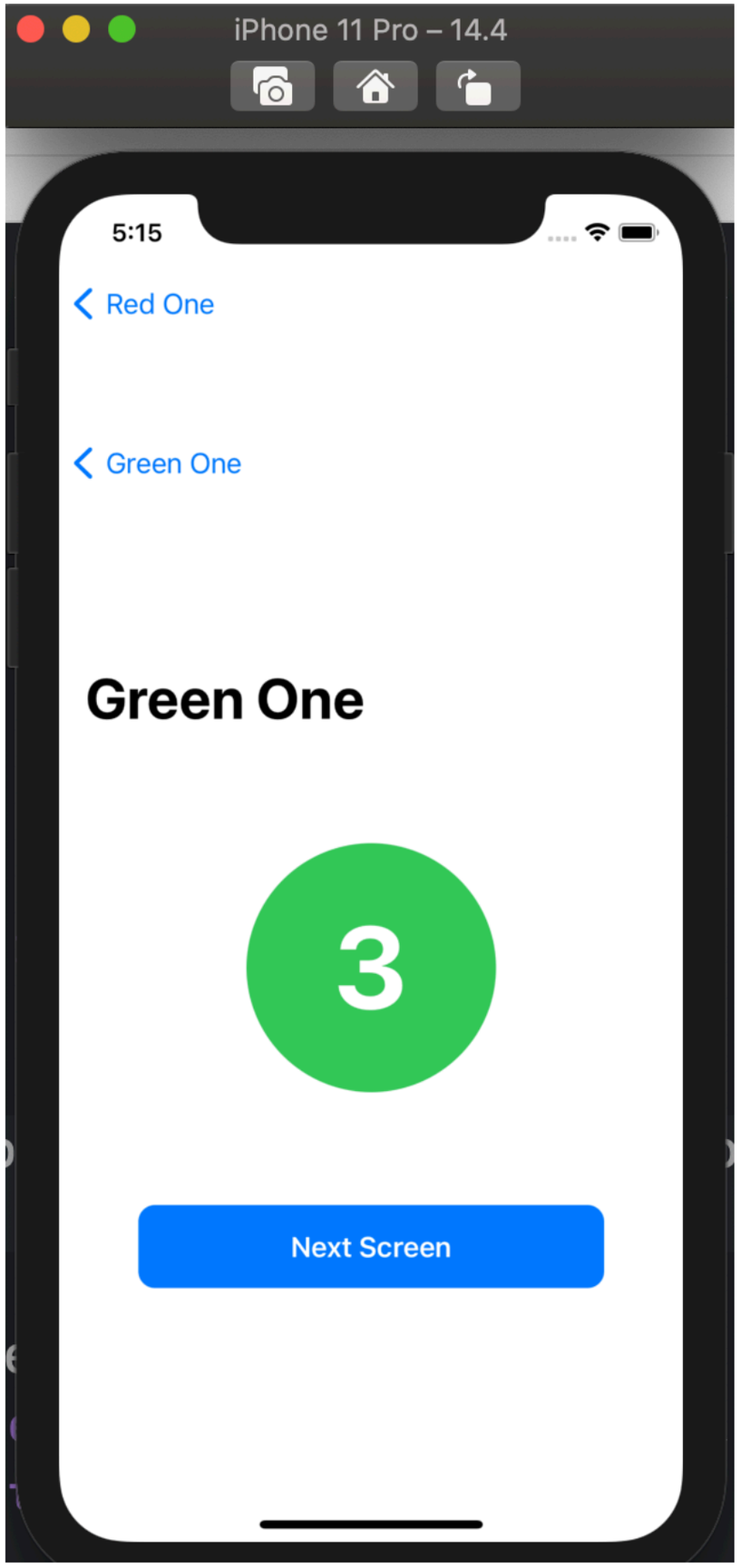
fac(n) = 1, if n == 1 or n == 0

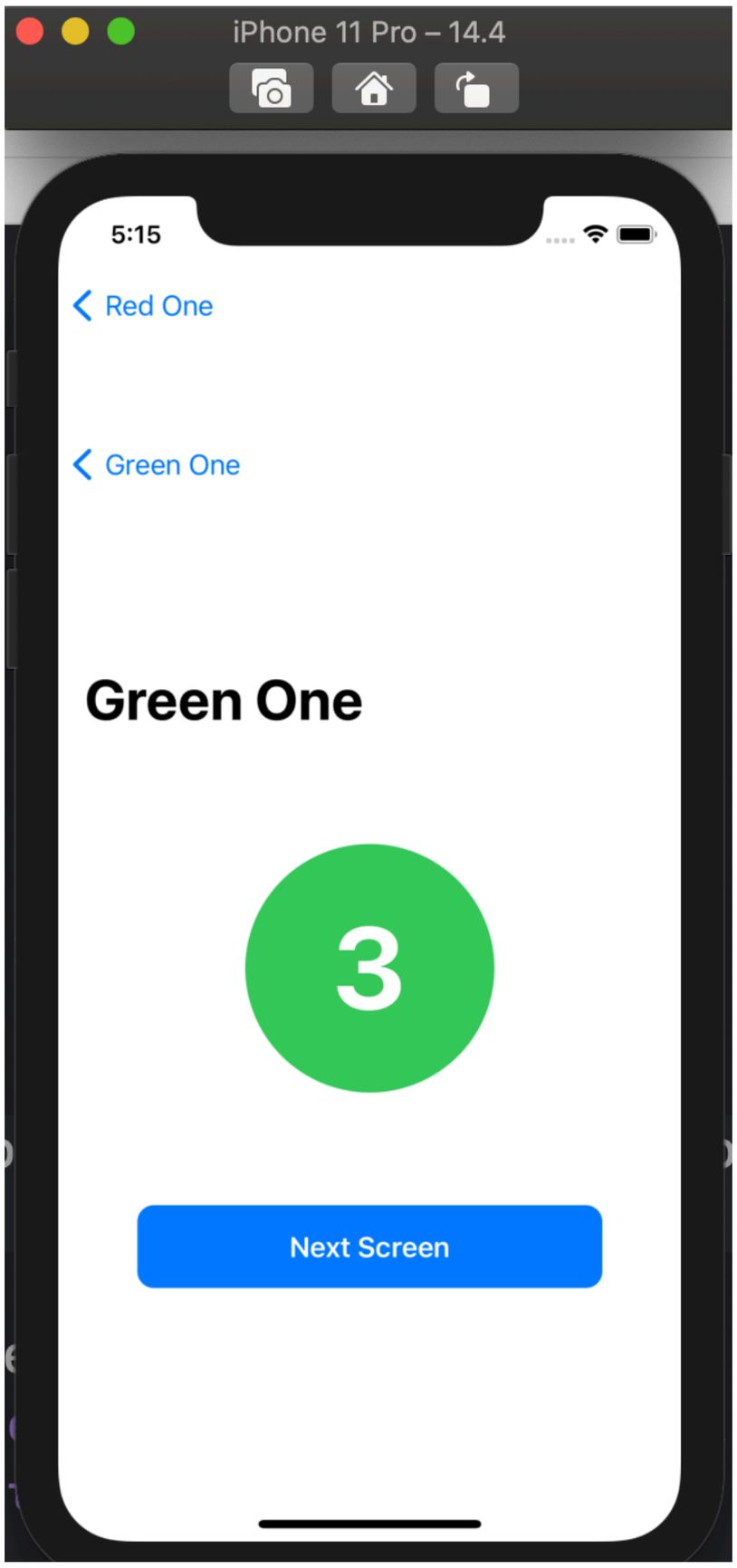
= n*fac(n-1), otherwise

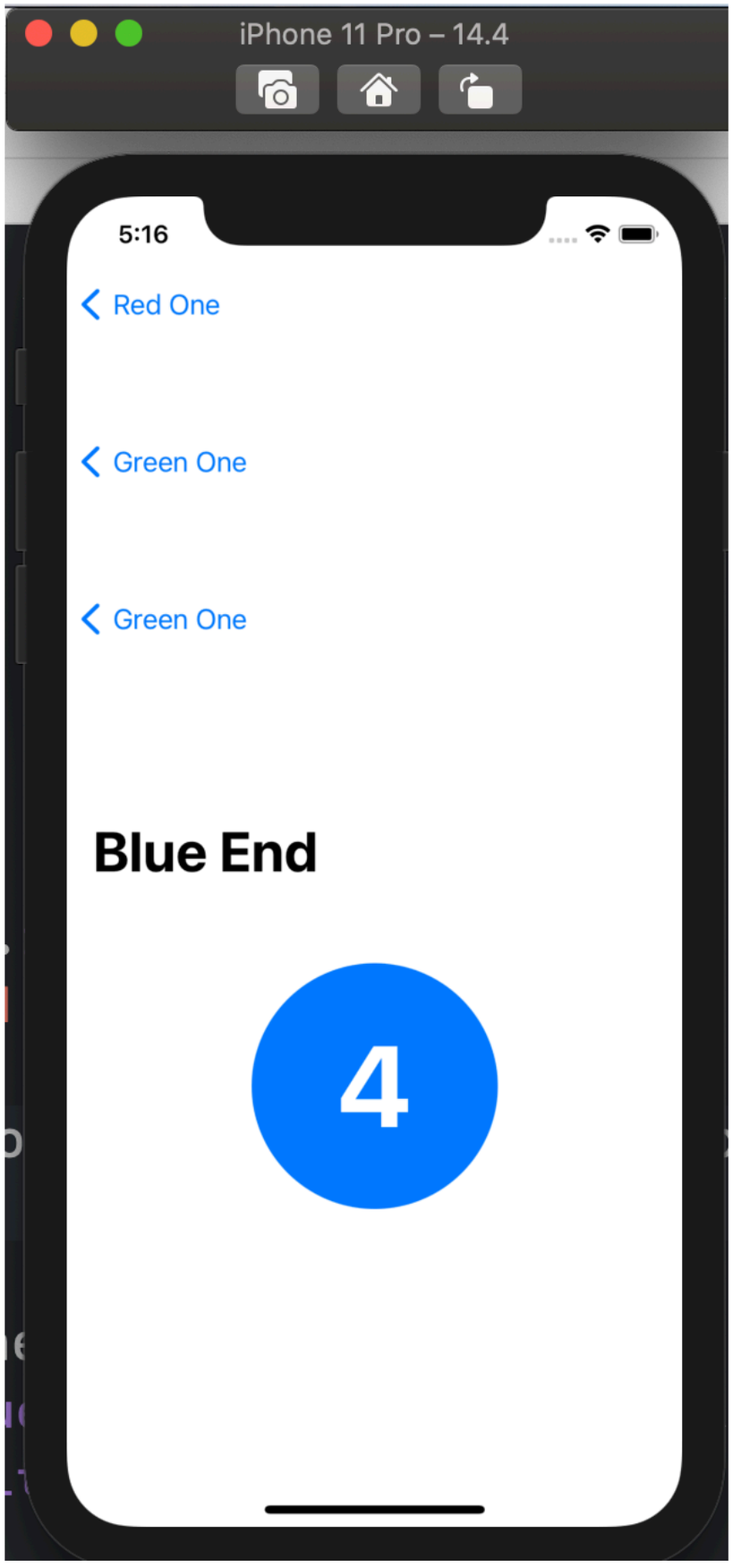

iPhone 11 Pro – 14.4
4:52
Red One
1
Next Screen

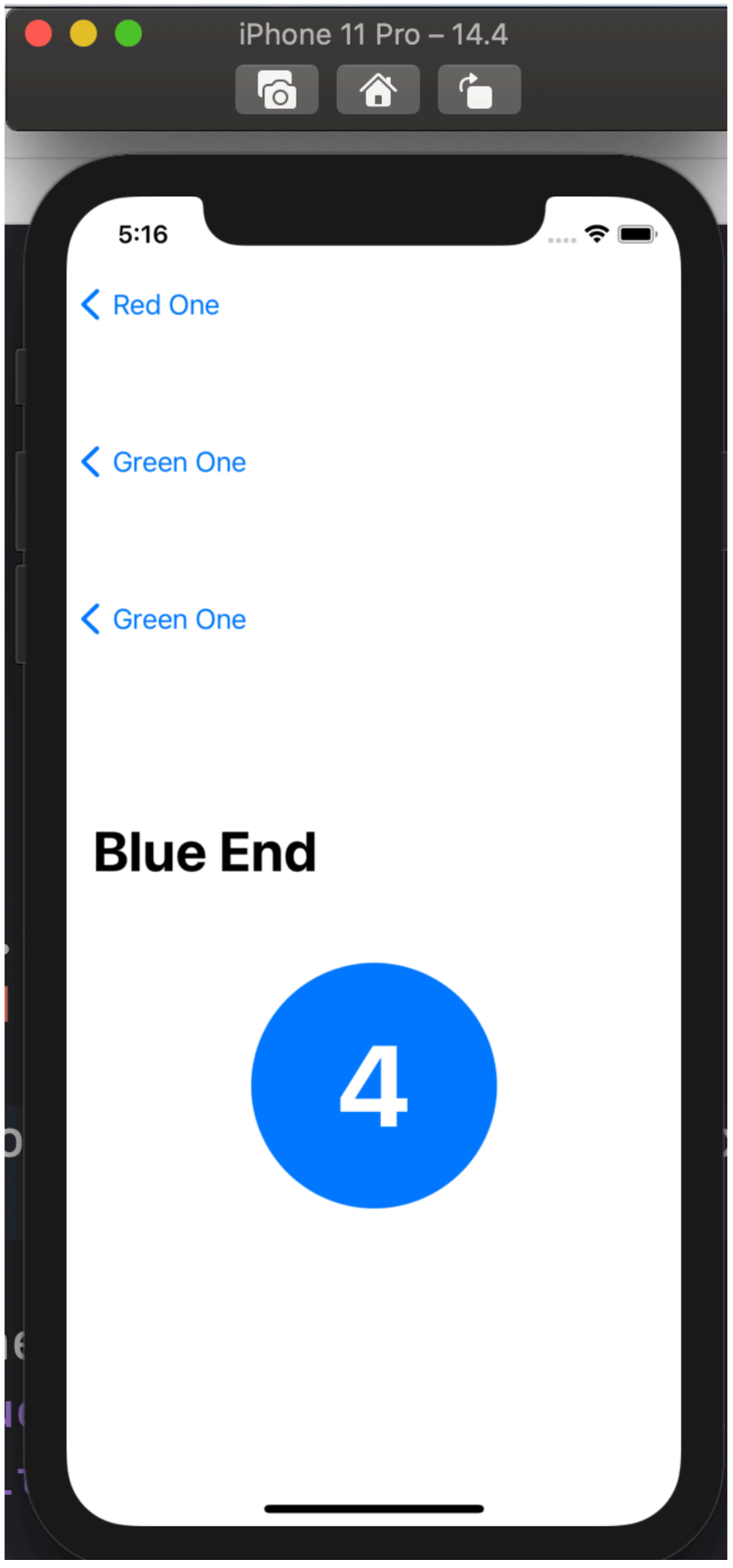

iPhone 11 Pro – 14.4
4:57
Red One
Green One
2
Next Screen

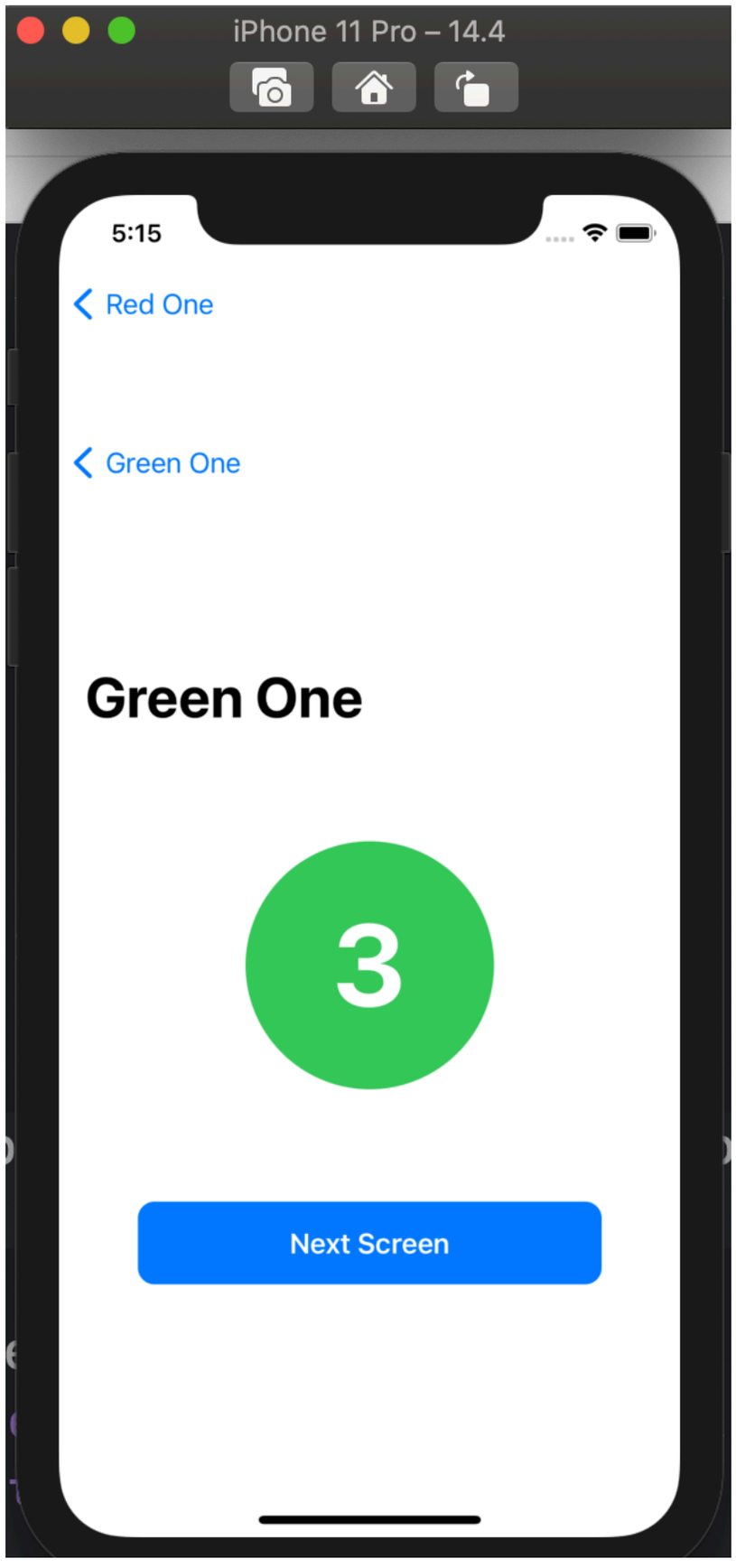

iPhone 11 Pro – 14.4
4:57
Red One
Green One
2
Next Screen

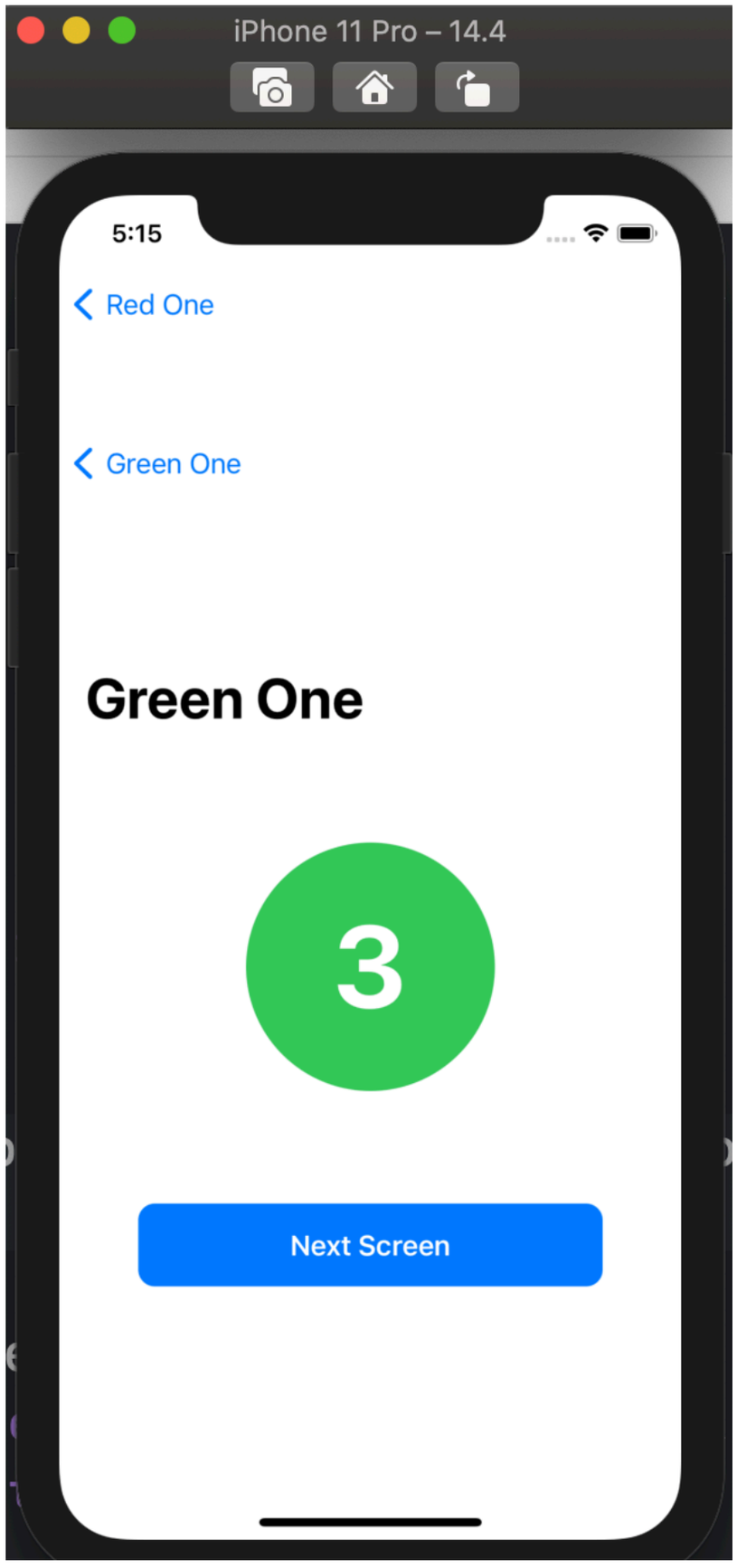

iPhone 11 Pro – 14.4
5:15
Red One
Green One
Green One
3
Next Screen

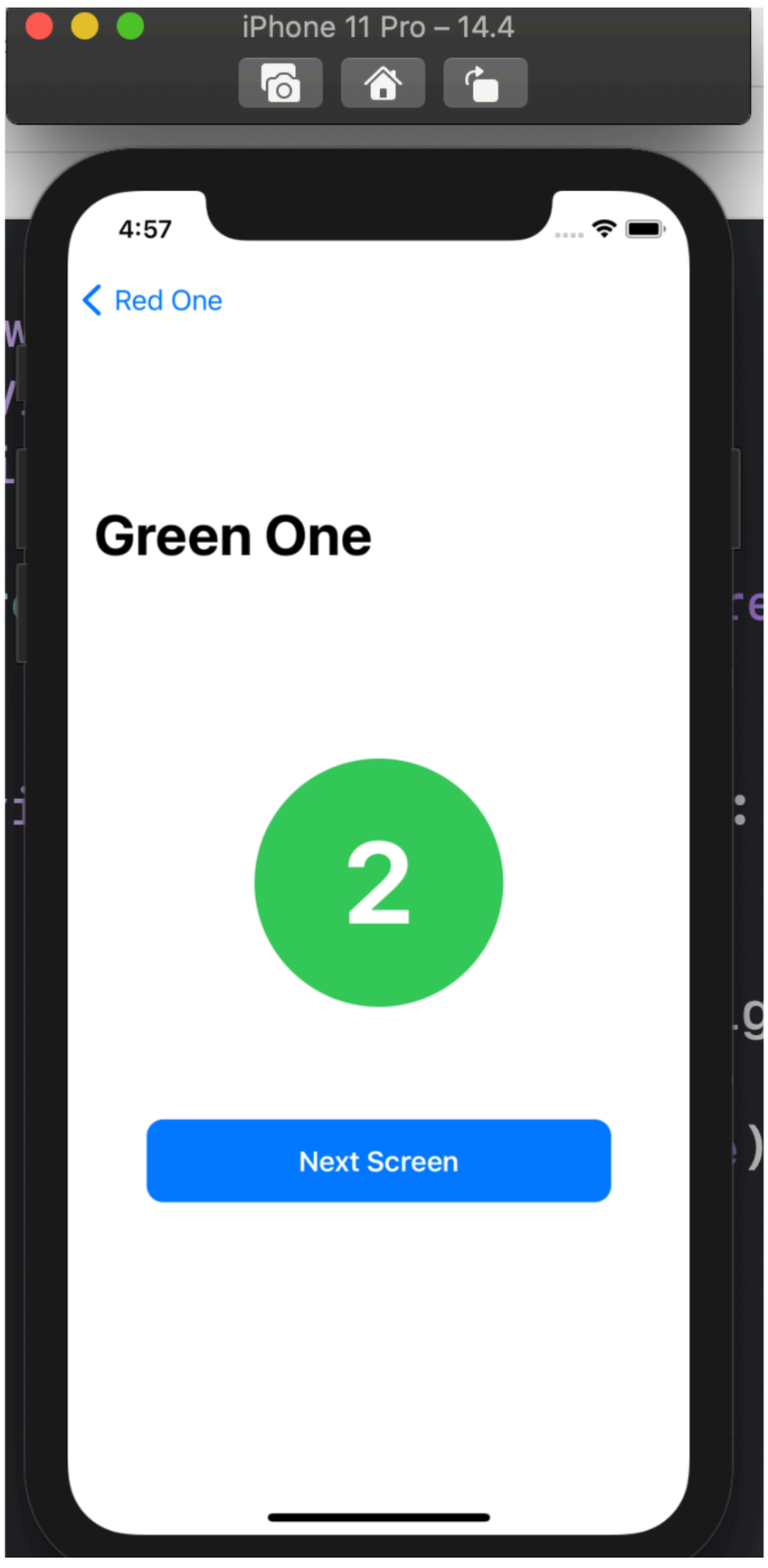

iPhone 11 Pro – 14.4
5:15
Red One
Green One
Green One
3
Next Screen

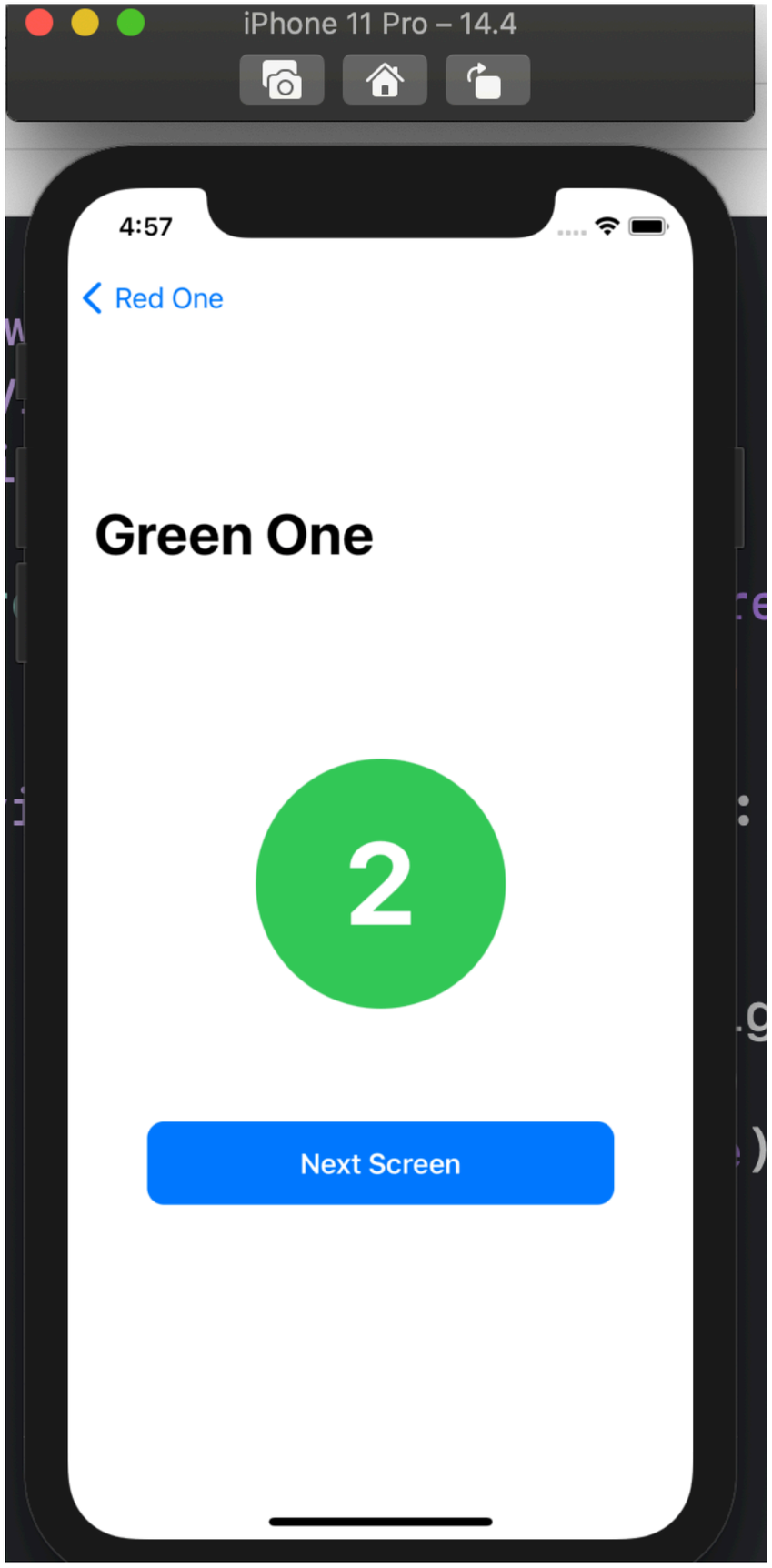

iPhone 11 Pro – 14.4
5:16
Red One
Green One
Green One
Blue End
4

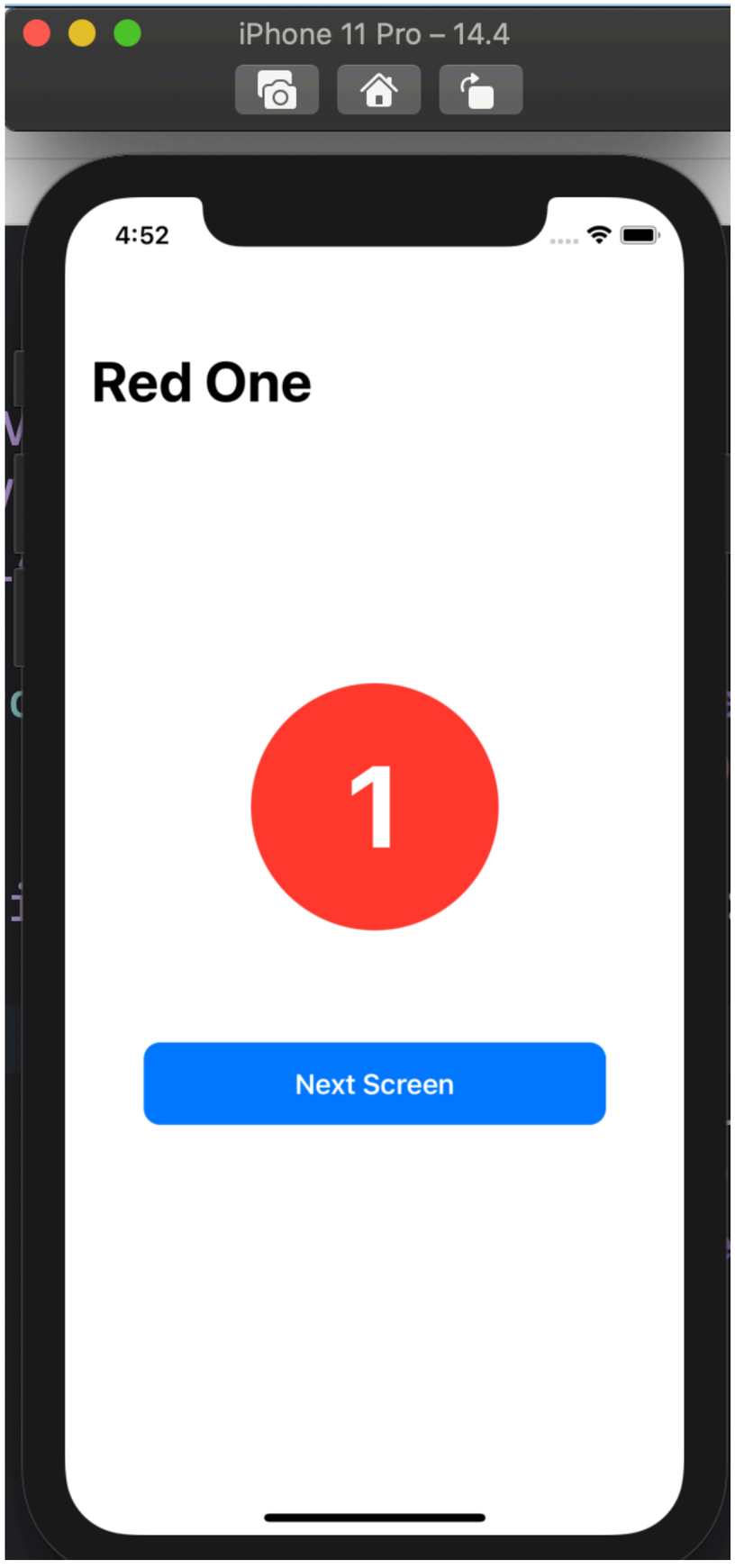

iPhone 11 Pro – 14.4
5:16
Red One
Green One
Green One
Blue End
4


iPhone 11 Pro – 14.4
5:15
Red One
Green One
Green One
3
Next Screen


iPhone 11 Pro – 14.4
5:15
Red One
Green One
Green One
3
Next Screen


iPhone 11 Pro – 14.4
4:57
Red One
Green One
2
Next Screen


iPhone 11 Pro – 14.4
4:57
Red One
Green One
2
Next Screen


iPhone 11 Pro – 14.4
4:52
Red One
1
Next Screen

```swift
struct ContentView: View {
    @State private var totalStr = "3"
    var body: some View {
        NavigationView{
            VStack {
                CircleNumberView(color: .red, number: 1)
                    .navigationTitle("Red One")
                    .offset(y: -60)
                if let total = Int(totalStr){
                    NavigationLink(destination: NodeView(node: 1, total: total),
                        label: {
                        Text("Next Screen")
                            .bold()
                            .frame(width: 280, height:50)
                            .background(Color.blue)
                            .foregroundColor(.white)
                            .cornerRadius(10)
                    })
                }
                HStack{
                    Spacer(minLength: 100)
                    Text("number")
                    TextField("total:", text: $totalStr)
                }
            }
        }
    }
}
```

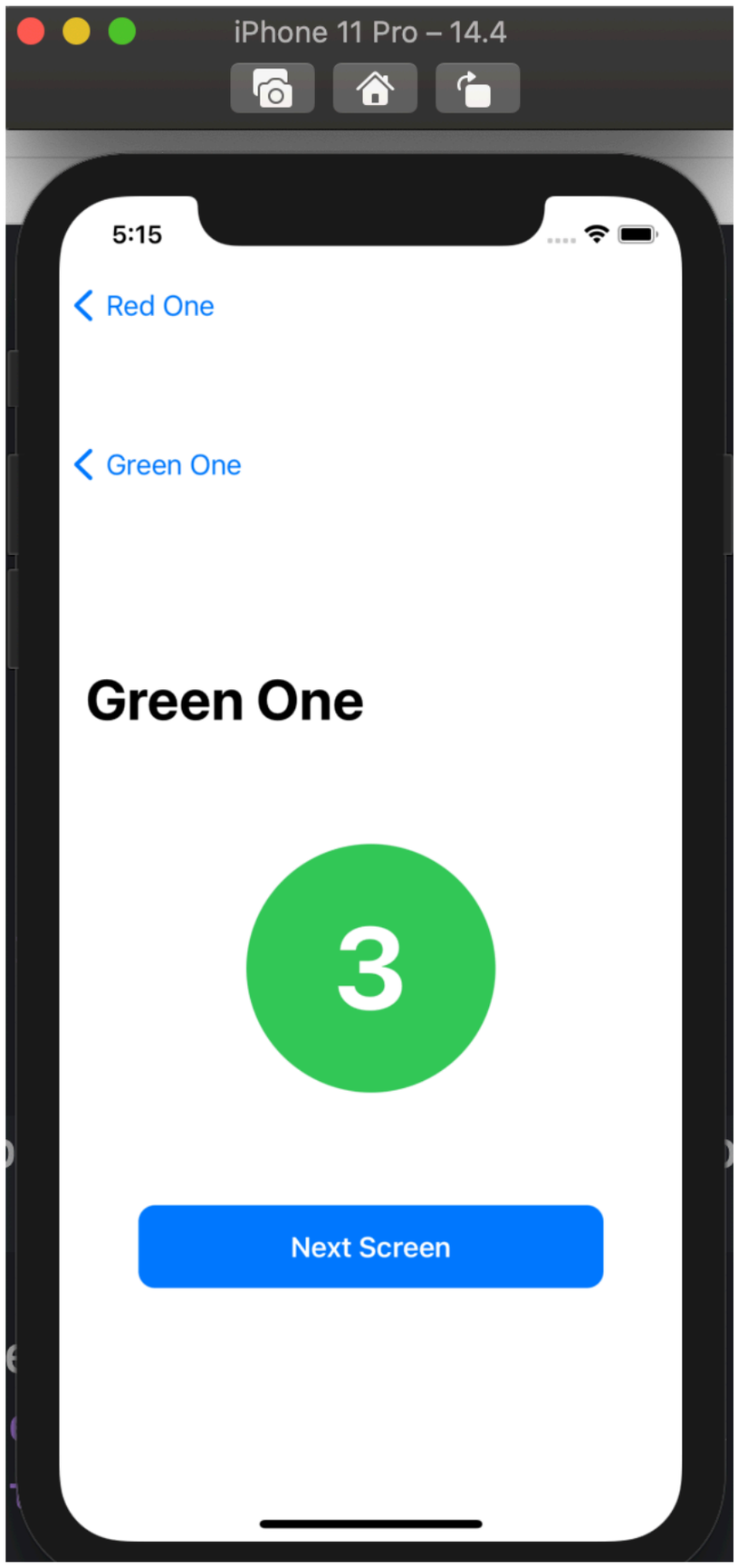
```
53  struct NodeView: View{
54      let node: Int
55      let total: Int
56      var body: some View{
57          NavigationView{
58              VStack {
59                  CircleNumberView(color: .green, number: node + 1)
60                      .navigationTitle("Green One")
61                      .offset(y: -60)
62                  if node == total - 2{•••} else {•••}
81              }
82          }
83      }
84  }
```

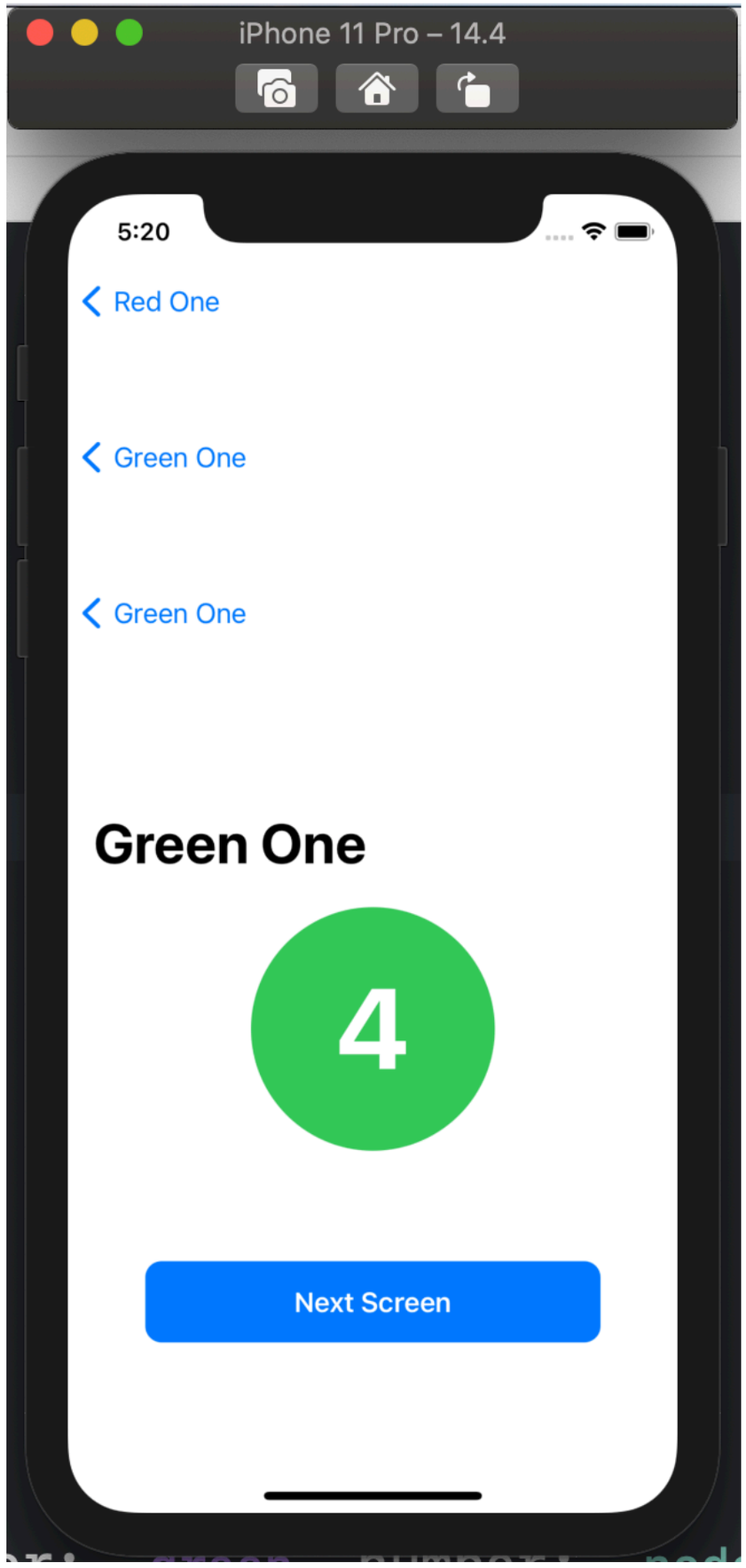
```
62                  if node == total - 2{
63                      NavigationLink(destination: TailView(number: total), label: {
64                          Text("Next Screen")
65                              .bold()
66                              .frame(width: 280, height:50)
67                              .background(Color.blue)
68                              .foregroundColor(.white)
69                              .cornerRadius(10)
70                      })
71                  } else {
72                      NavigationLink(destination: NodeView(node: node + 1,
                            total:total), label: {
73                          Text("Next Screen")
74                              .bold()
75                              .frame(width: 280, height:50)
76                              .background(Color.blue)
77                              .foregroundColor(.white)
78                              .cornerRadius(10)
79                      })
80                  }
```

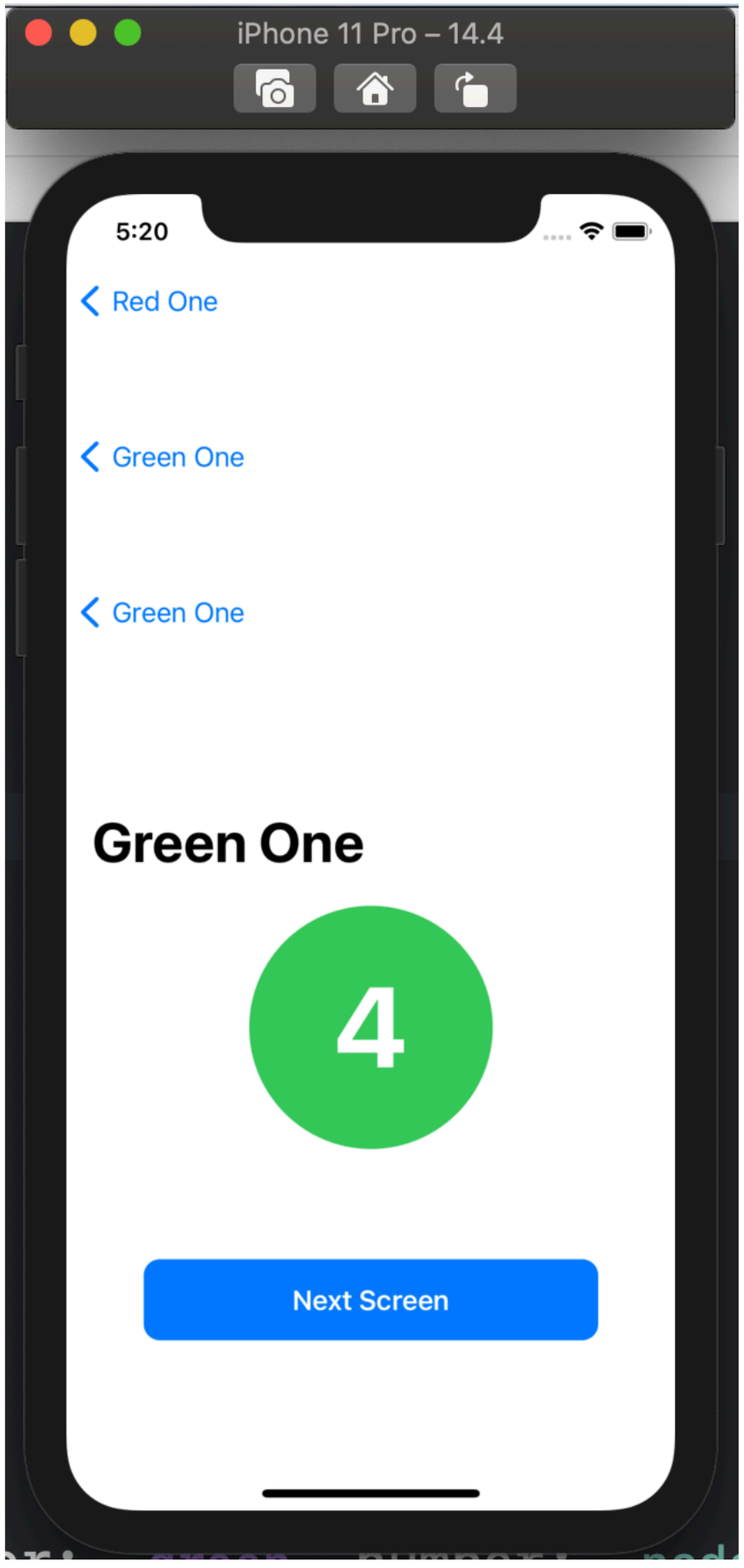
```swift
struct TailView: View{
    let number : Int
    var body: some View{
        NavigationView{
            CircleNumberView(color: .blue, number: number)
                .navigationTitle("Blue End")
                .offset(y: -60)

        }
    }
}
```

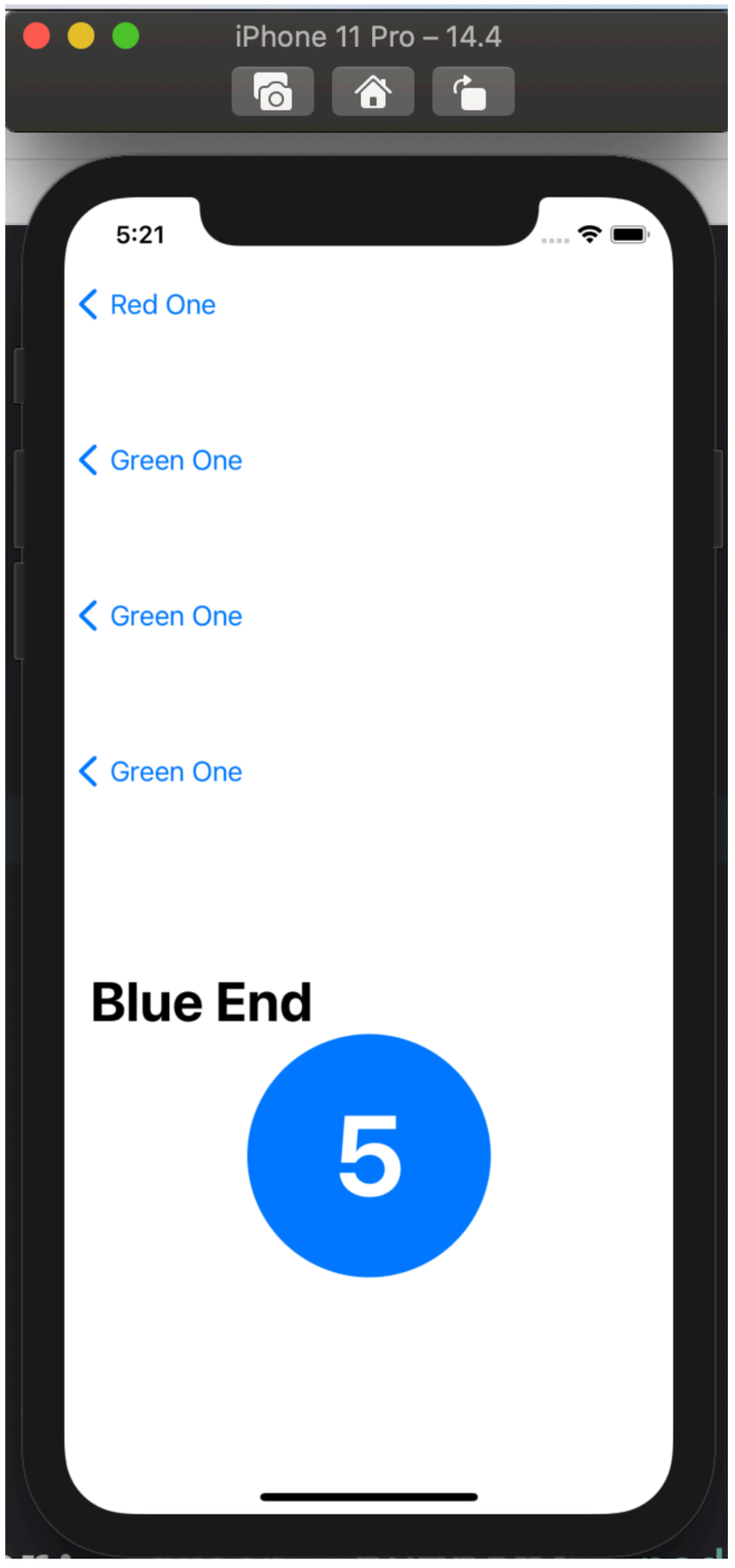
步驟五、使用遞迴架構設計五個畫面

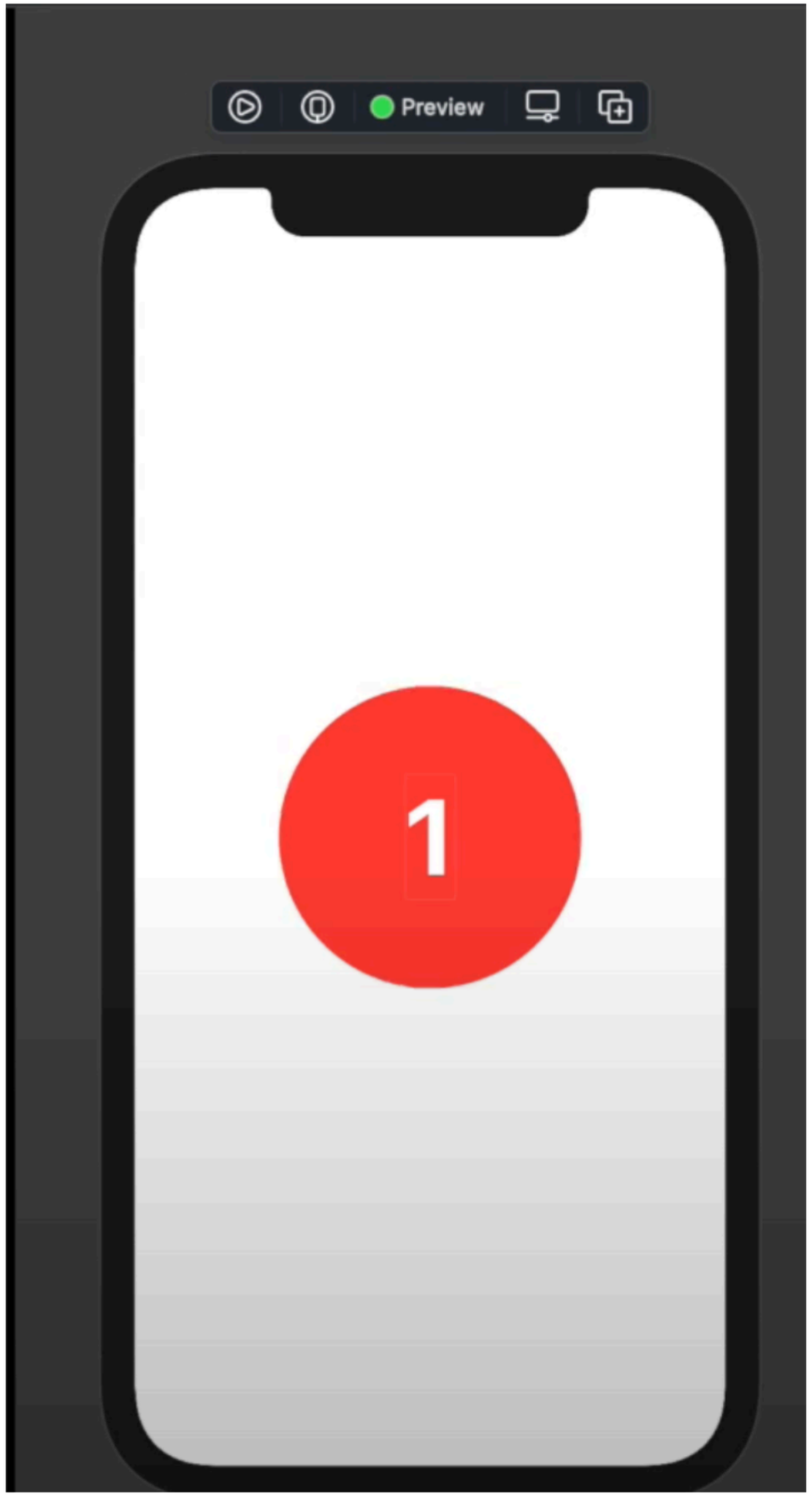
```
struct ContentView: View {
    let total = 5
    var body: some View {
        NavigationView{
            VStack{ ••• }
        }
    }
}
```


iPhone 11 Pro – 14.4
5:15
Red One
Green One
Green One
3
Next Screen


iPhone 11 Pro – 14.4
5:20
Red One
Green One
Green One
Green One
4
Next Screen


iPhone 11 Pro – 14.4
5:20
Red One
Green One
Green One
Green One
4
Next Screen


iPhone 11 Pro – 14.4
5:21
Red One
Green One
Green One
Green One
Blue End
5


Preview
1