

iOS Bootcamp - Meeting 1

Hosted by App Team Carolina

Agenda

What can you expect this meeting?

1. Icebreaker
2. Recap
3. View Modifiers
4. View Hierarchy

Attendance!



Please fill this out!

Recap

Last meeting review

- SwiftUI
 - UI framework
 - Declarative
- Views
 - View elements (Text, Image)
 - View containers (VStack, HStack, ZStack)
- Making a project

Recap

Layout Practice

App Team Carolina



Meeting 2

A

```
VStack {  
  Text("App Team Carolina")  
  
  HStack {  
    Image(systemName: "iphone")  
      .foregroundColor(.cyan)  
  
    Text("Meeting 2")  
  }  
}
```

B

```
VStack {  
  HStack {  
    Text("Meeting 2")  
  
    Image(systemName: "iphone")  
      .foregroundColor(.cyan)  
  }  
  
  Text("App Team Carolina")  
}
```

C

```
VStack {  
  HStack {  
    Image(systemName: "iphone")  
      .foregroundColor(.cyan)  
  
    Text("Meeting 2")  
  }  
  
  Text("App Team Carolina")  
}
```

Recap

Layout Practice

AM

Alexandra Marum

4:04 pm

Hey, UNC is playing UCF this weekend, and I was wondering if you wanted to watch...

```
HStack {  
  Text("AM") // Contact Image  
  
  VStack (alignment: .leading) {  
    HStack {  
      Text("Alexandra Marum")  
        .fontWeight(.semibold)  
  
      Spacer()  
  
      Text("4:04 pm")  
        .foregroundColor(.gray)  
    }  
  
    Text(message)  
      .font(.callout)  
      .foregroundStyle(.gray)  
  }  
}
```

A

```
VStack {  
  HStack {  
    Text("Alexandra Marum")  
      .fontWeight(.semibold)  
  
    Spacer()  
  
    Text("4:04 pm")  
      .foregroundColor(.gray)  
  }  
  
  HStack {  
    Text("AM") // Contact Image  
  
    Text(message)  
      .font(.callout)  
      .foregroundStyle(.gray)  
  }  
}
```

B

View Modifiers

View Modifiers

Reminder

Methods applied to a view to modify its appearance.

```
Text("View with a Background")  
    .background(Color.blue)
```



View with a Background

```
Text("View with a Border")  
    .border(Color.blue)
```



View with a Border

```
Text("View with a color")  
    .foregroundColor(Color.blue)
```



View with a color

View Modifiers

Intro

Modifiers are composable – they can be chained together to build complex views.

```
Text("Padded Border")  
    .padding(16)  
    .border(Color.blue)
```



Padded Border

When adding modifiers to a View, **order matters**

```
Text("Padded Border")  
    .border(Color.blue)  
    .padding(16)
```



Padded Border

View Modifiers

Common Text modifiers

```
Text("View with a color")  
    .foregroundColor(Color.blue)
```



View with a color

```
Text("Title text")  
    .font(.title)
```



Title text

```
Text("Bold text")  
    .bold()
```



Bold text

```
Text("One line limit")  
    .lineLimit(1)
```

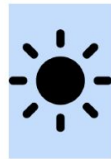


One line li...

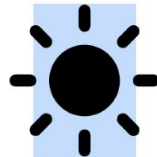
View Modifiers

Common Image modifiers

```
Image(systemName: "sun.max.fill")  
    .resizable()  
    .scaledToFit()
```



```
Image(systemName: "sun.max.fill")  
    .resizable()  
    .scaledToFill()
```



```
Image(systemName: "sun.max.fill")  
    .resizable()  
    .scaledToFit()  
    .clipShape(Circle())
```



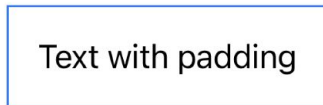
View Modifiers

Common general modifiers

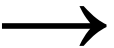
```
Text("Text in a frame")  
    .frame(width: 100, height: 100)
```



```
Text("Text with padding")  
    .padding()
```



```
Text("View with a color")  
    .foregroundColor(Color.blue)
```



View with a color

```
Text("View with a Background")  
    .background(Color.blue)
```



View with a Background

View Modifiers

Environment modifiers

Environment modifiers can be applied to container views. They change the appearance or behavior of all child views.

```
VStack(alignment: .leading, spacing: 20) {  
    Text("Item 1")  
    Text("Item 2")  
    Text("Item 3")  
    Image(systemName: "cloud")  
}  
.font(.title)  
.foregroundColor(.cyan)
```



Item 1

Item 2

Item 3



Practice using view modifiers

[Return to Notion](#)

View Modifiers

Fix the code!

```
Text("Rainbow Colors")  
    .background(Color.red)  
    .background(Color.orange)  
    .background(Color.yellow)  
    .background(Color.green)  
    .background(Color.blue)  
    .background(Color.purple)
```



View Modifiers

Fix the code!

```
VStack {  
    Text( "Purple" )  
    Text( "Purple" )  
    Text( "Blue" )  
}
```

Purple
Purple
Blue

The View Hierarchy

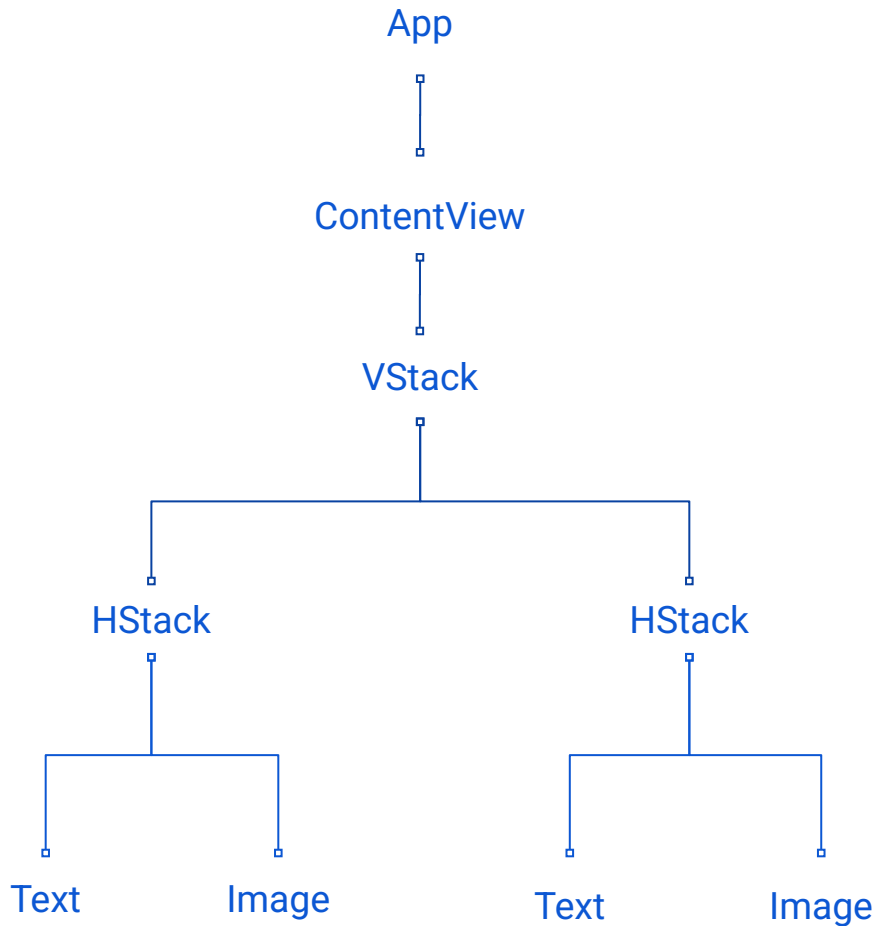
The View Hierarchy

App Structure

At the highest level, an app is composed of views in a **tree-like** structure.

Notice that each view is a child of App. Each view can in turn have its own **subtree**, or “branch”, composed of one or more subviews.

For example, the **HStack** branches are subtrees of **VStack**.

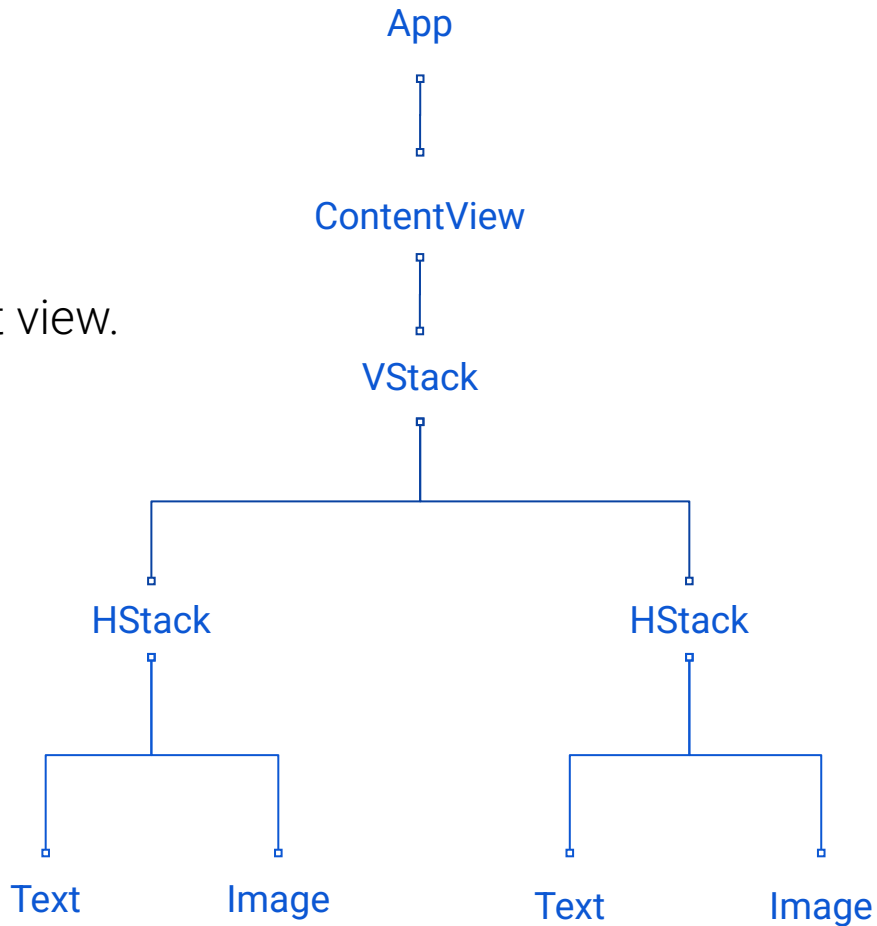


The View Hierarchy

App Structure

In code, subtrees are **nested** within the parent view.

```
struct ContentView: View {  
    var body: some View {  
        VStack {  
            HStack {  
                Text("Hello, world!")  
                Image(systemName: "globe")  
            }  
            HStack {  
                Text("My name is Alexandra")  
                Image(systemName: "hand.wave")  
            }  
        }  
    }  
}
```



Practice with the view hierarchy

Use writing materials

View Hierarchy

Create a view hierarchy diagram for the following view

```
struct ContentView: View {  
    var body: some View {  
        HStack(alignment: .top) {  
            Image(systemName: "person.circle")  
                .font(.largeTitle)  
            VStack(alignment: .leading) {  
                Text("App Team Carolina")  
                    .bold()  
                Text("@ UNC-Chapel Hill")  
            }  
        }  
    }  
}
```



App Team Carolina
@ UNC-Chapel Hill

Instagram recreation demo

Return to Notion!