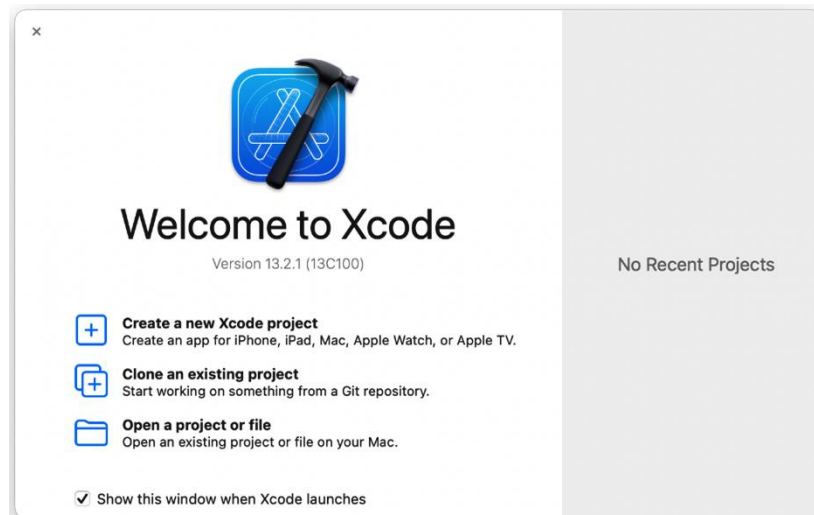


Chapter 01: Exploring the Fundamentals of SwiftUI



Choose options for your new project:

Product Name:

Team:

Organization Identifier:

Bundle Identifier:

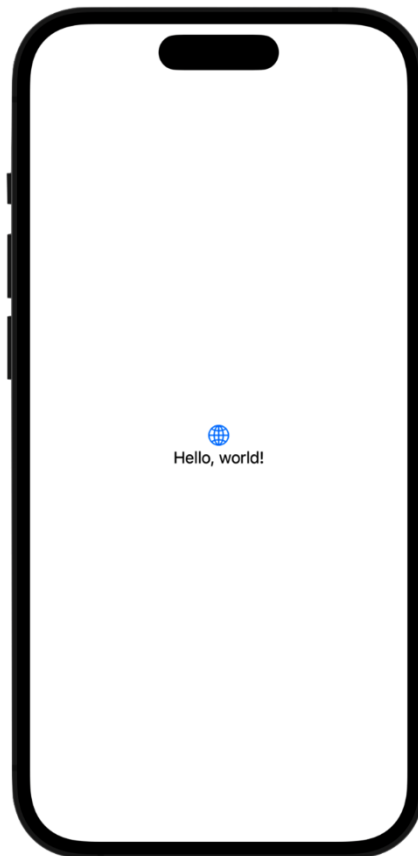
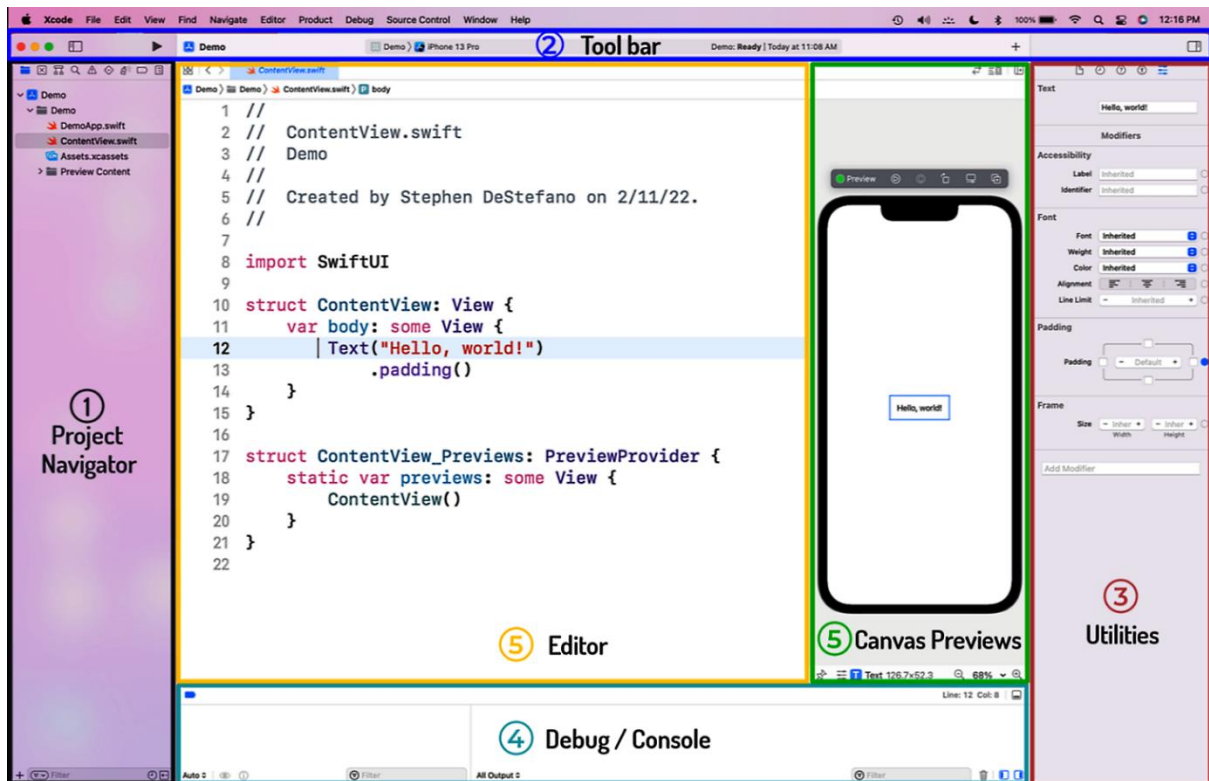
Interface:

Language:

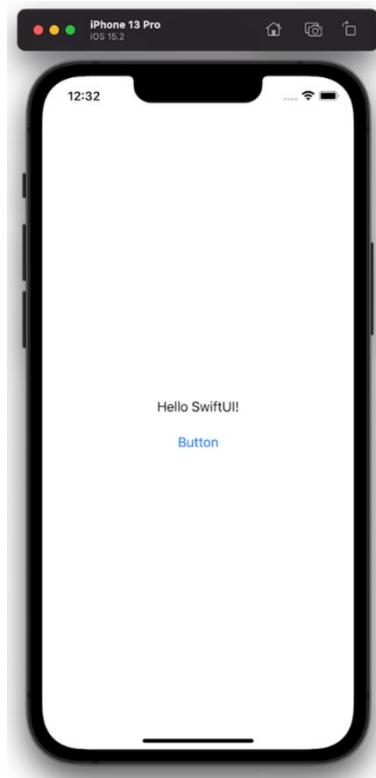
☐ Use Core Data

☐ Host in CloudKit

☐ Include Tests

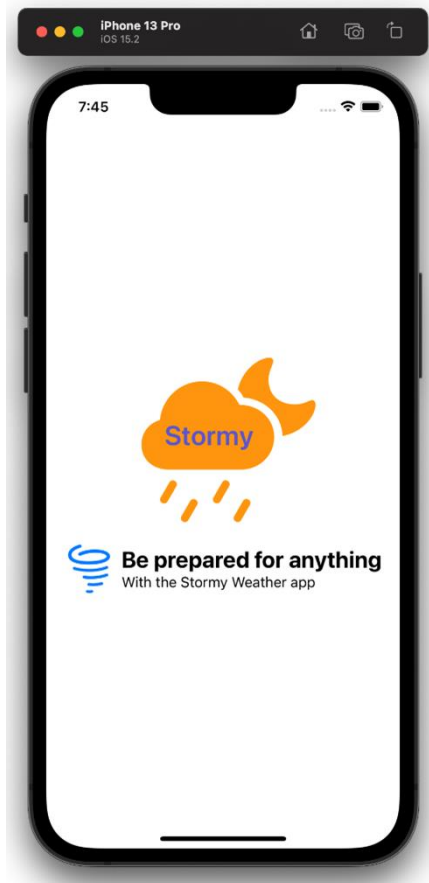


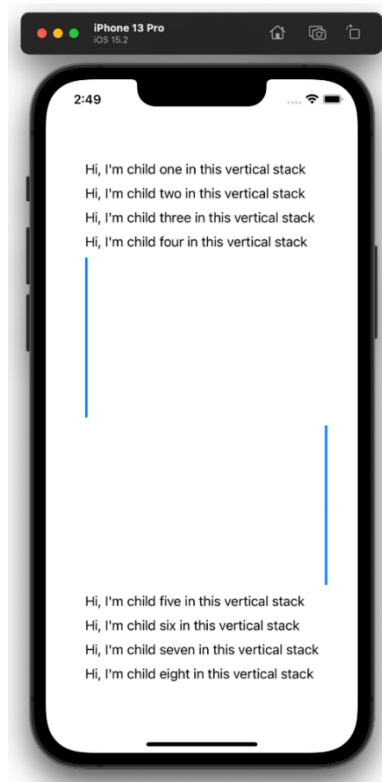
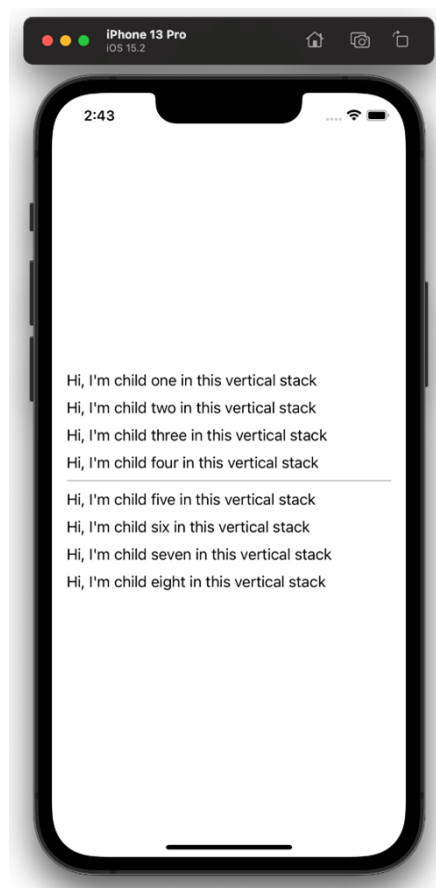

Hello, world!

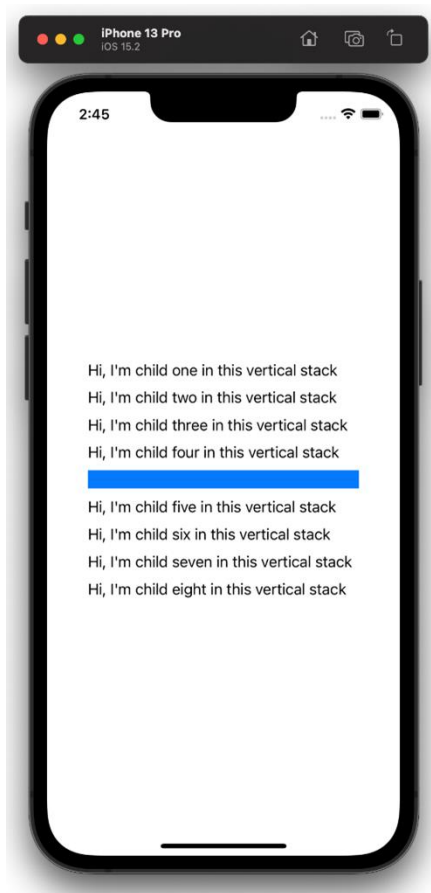




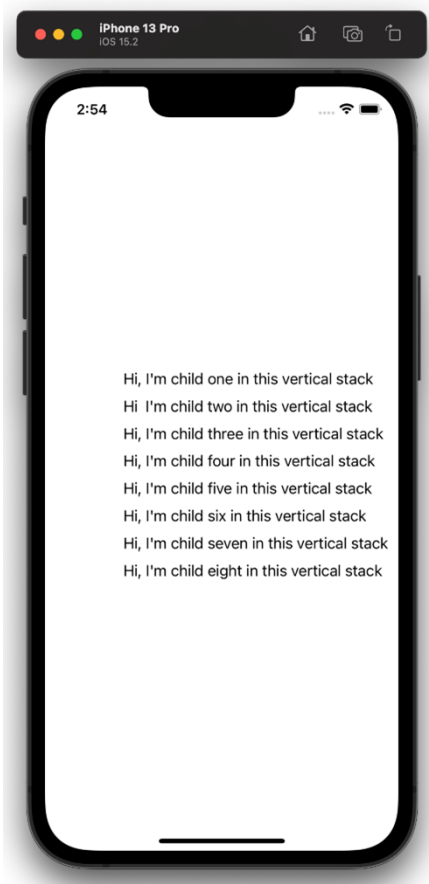
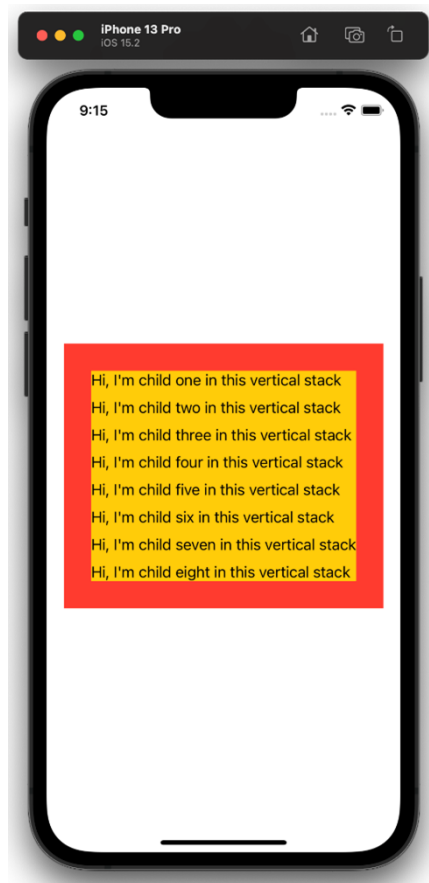


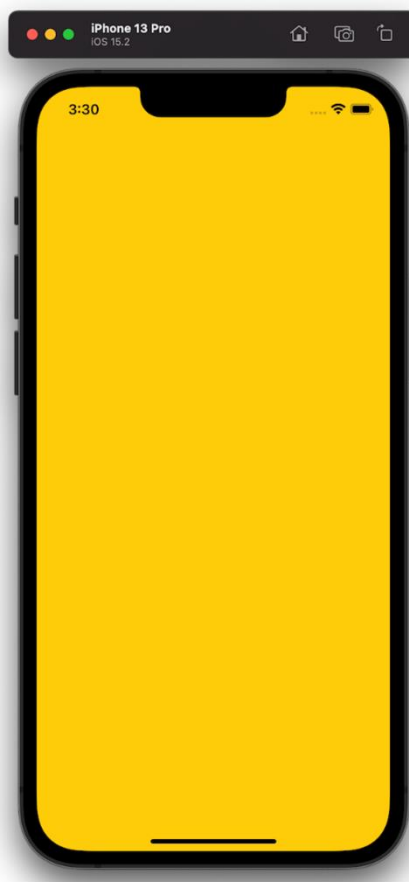
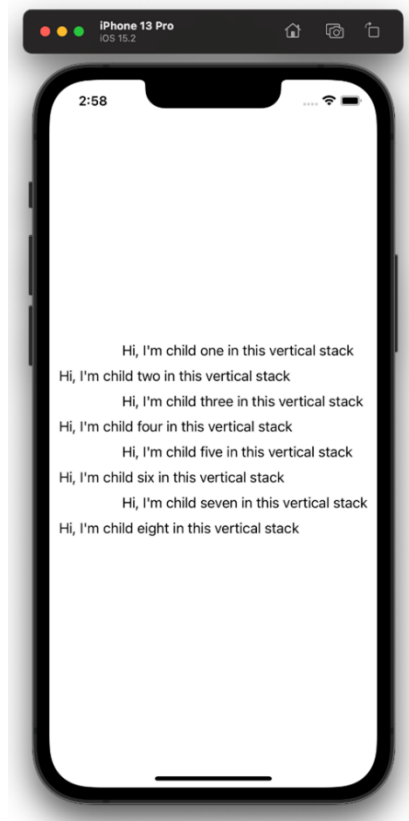


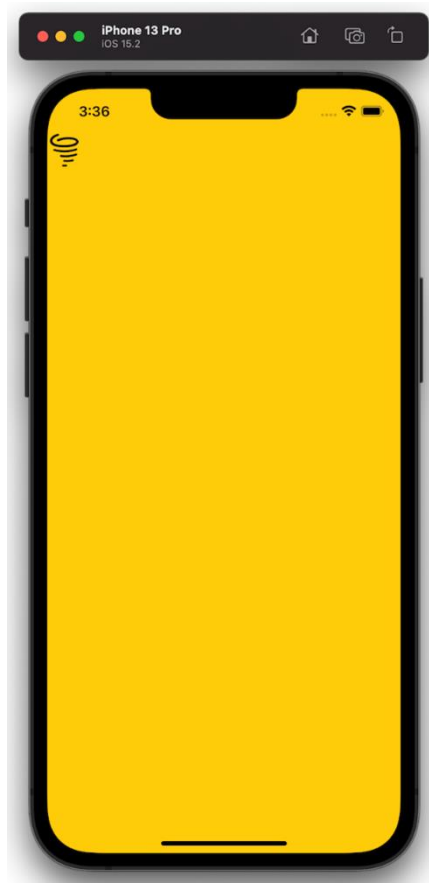


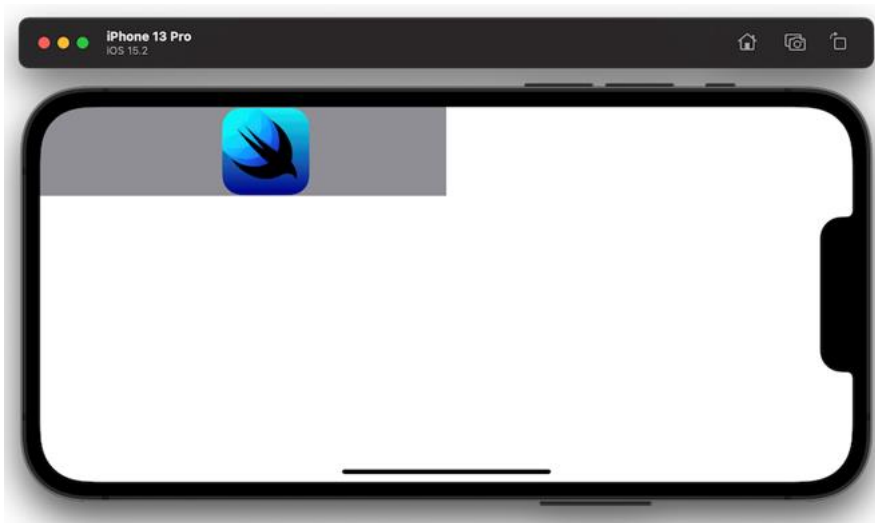


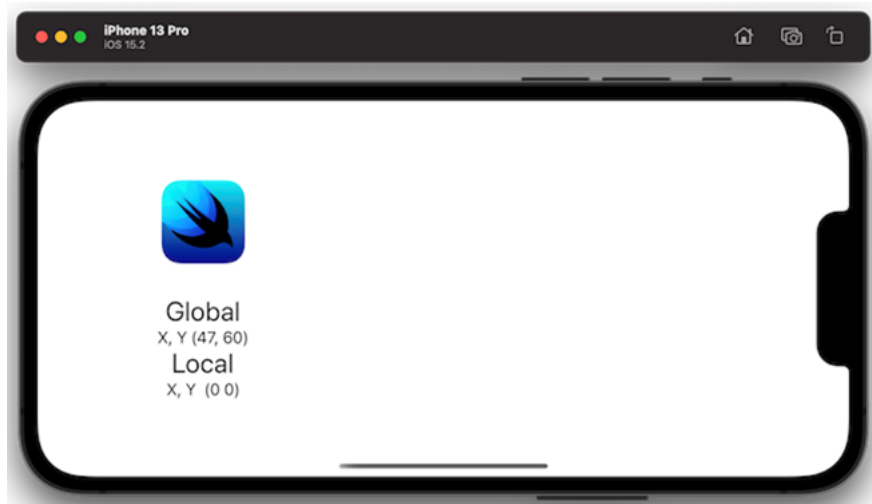
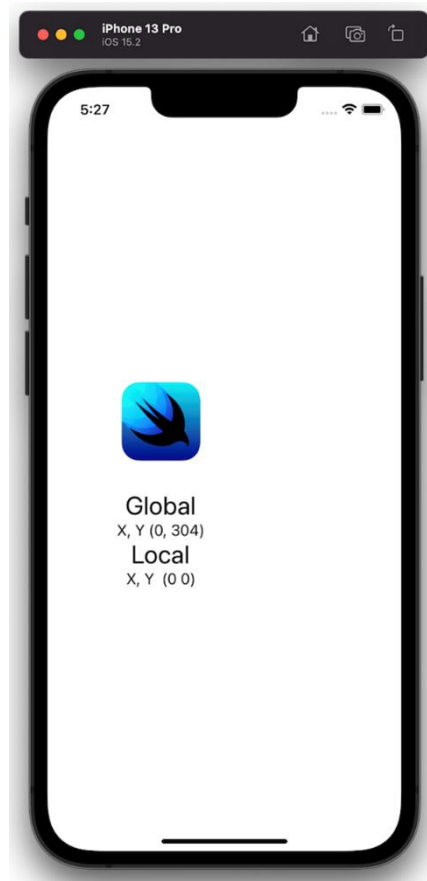
Hi, I'm child one in this vertical stack
Hi, I'm child two in this vertical stack
Hi, I'm child three in this vertical stack
Hi, I'm child four in this vertical stack
Hi, I'm child five in this vertical stack
Hi, I'm child six in this vertical stack
Hi, I'm child seven in this vertical stack
Hi, I'm child eight in this vertical stack

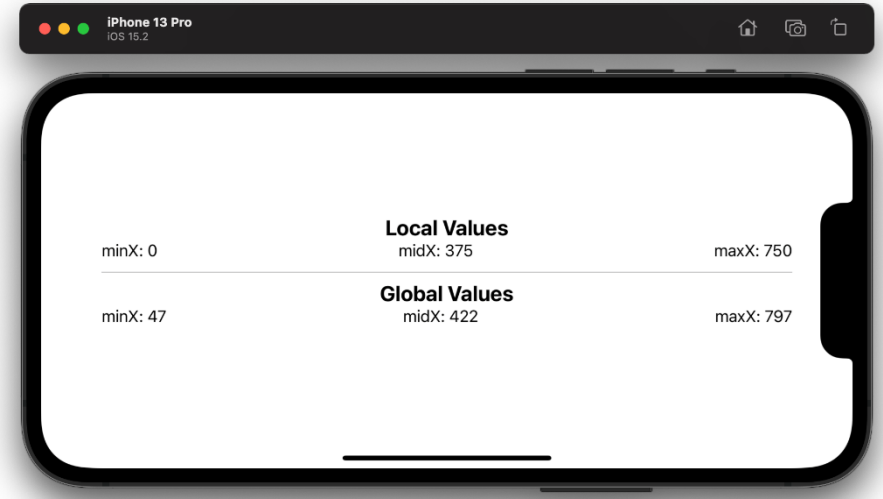




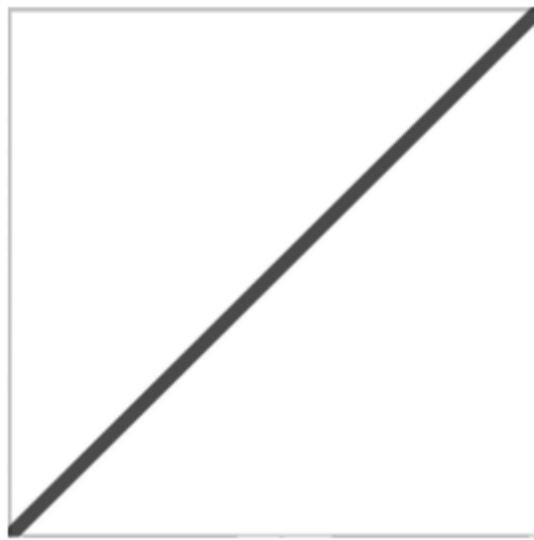
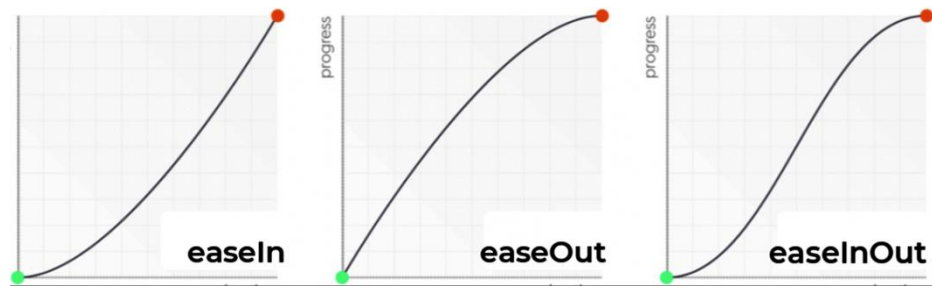


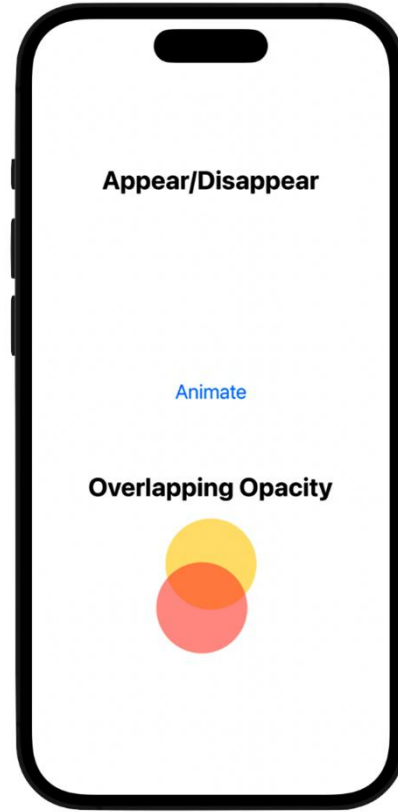
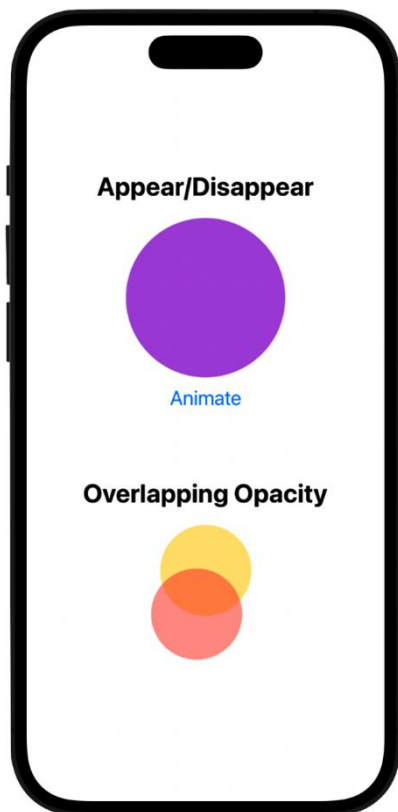
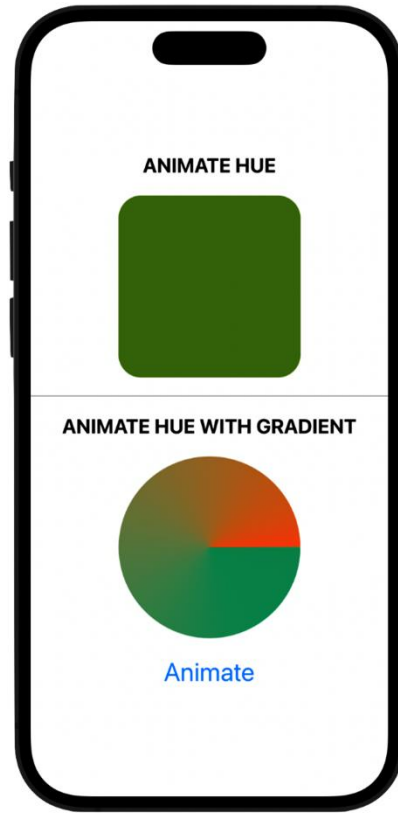
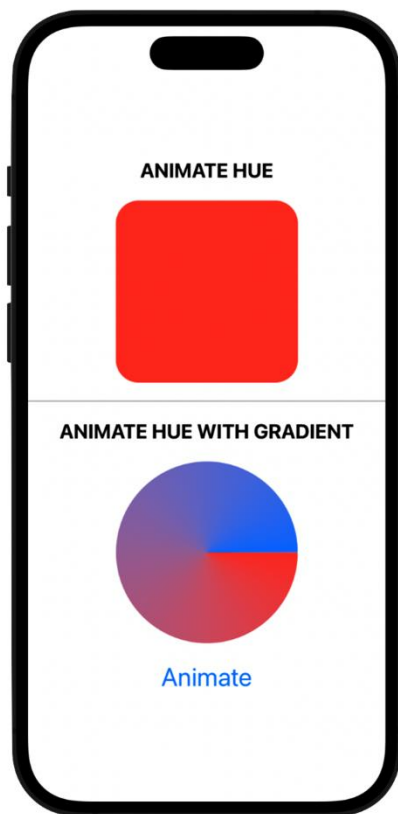


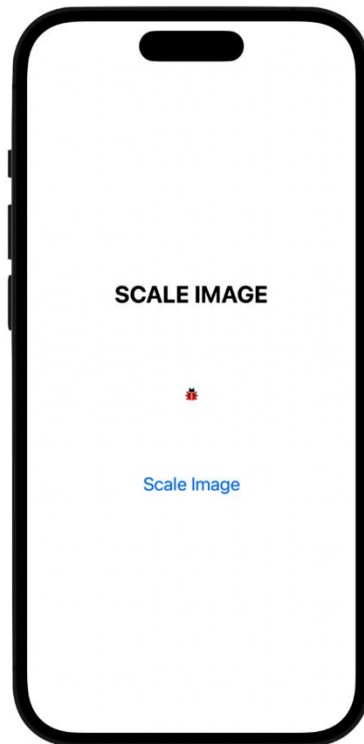
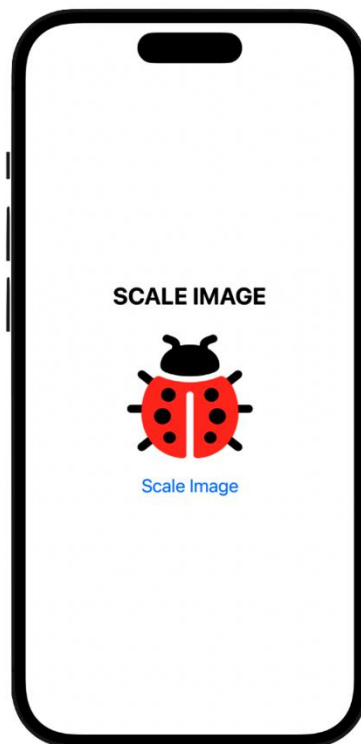
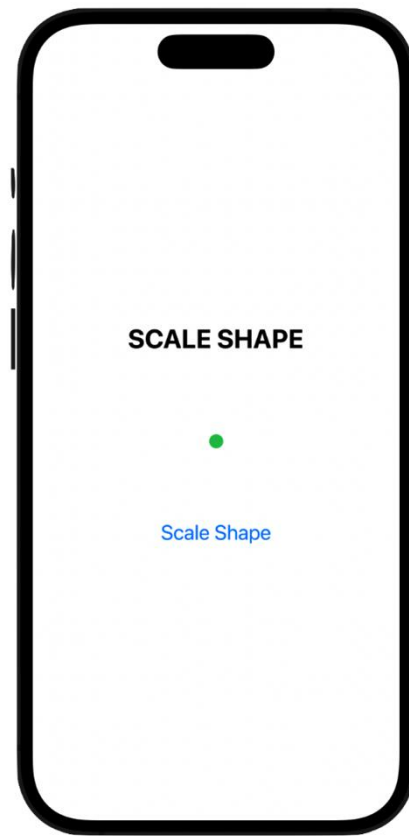
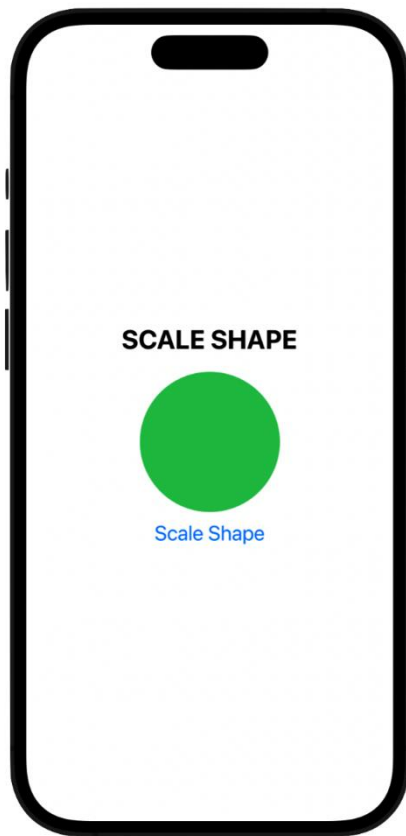


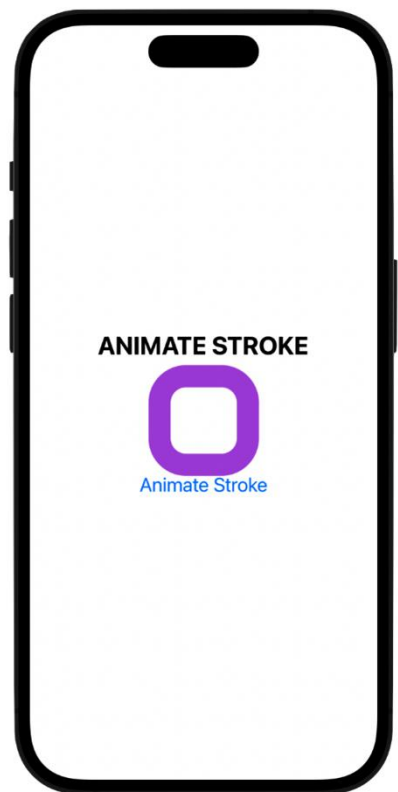
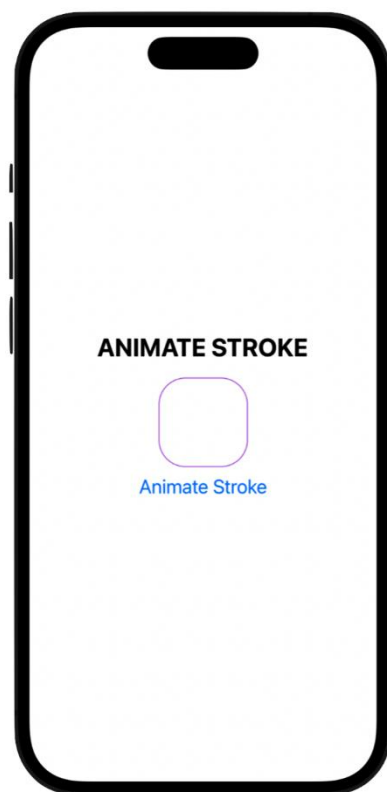
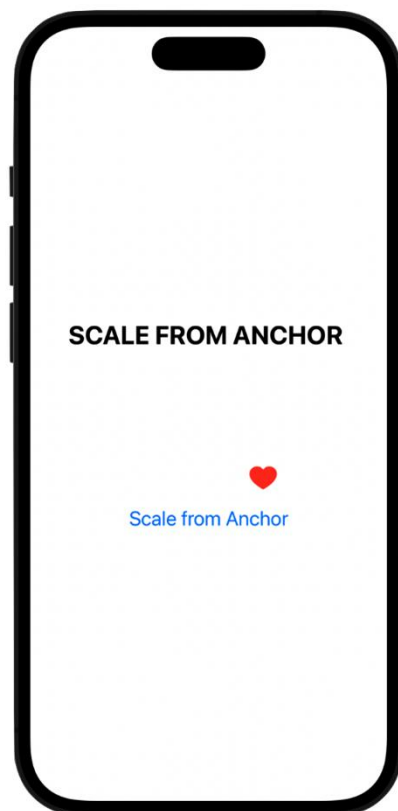


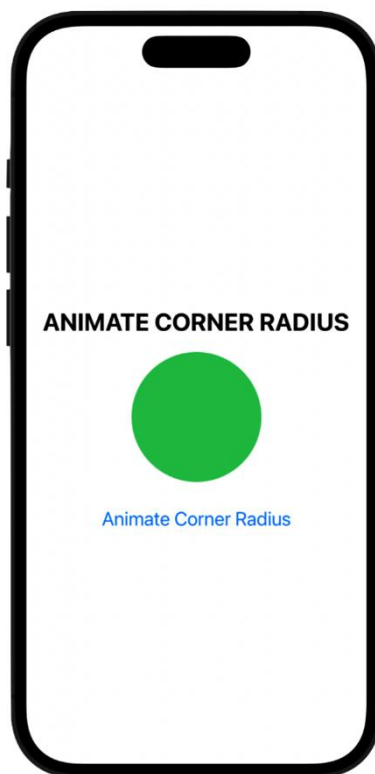
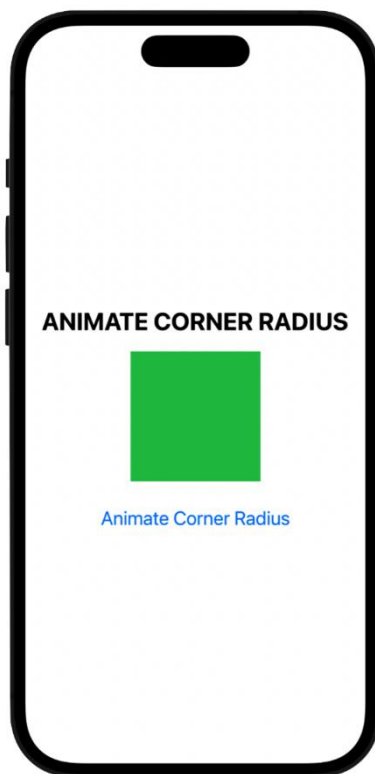
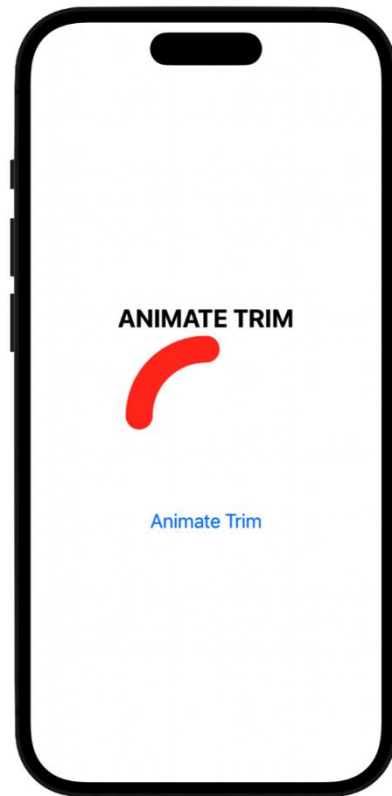
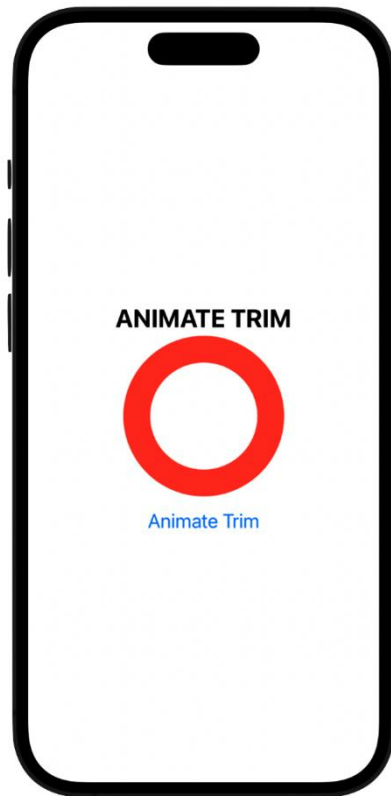
Chapter 02: Understanding Animation with SwiftUI





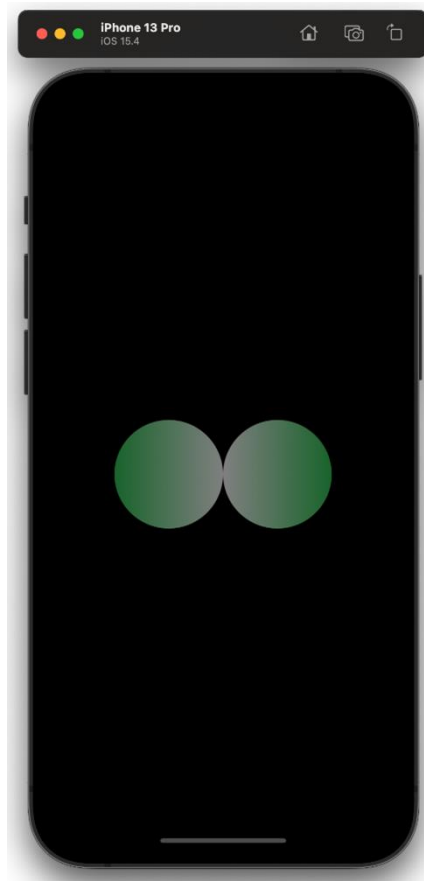




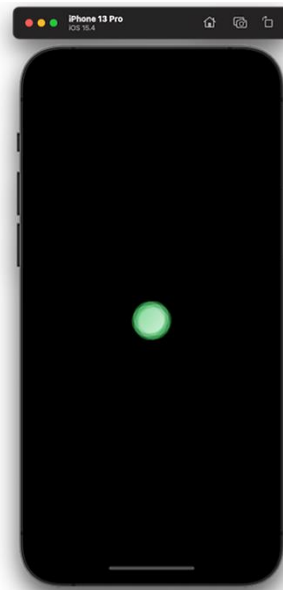
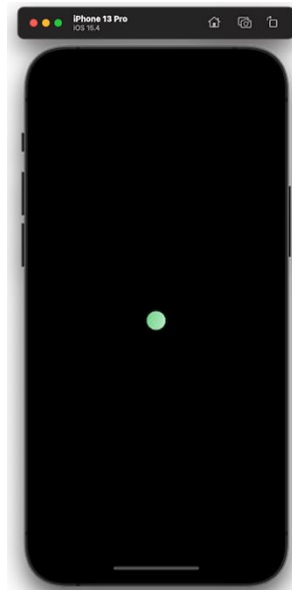


Chapter 03: Creating a Breathing App

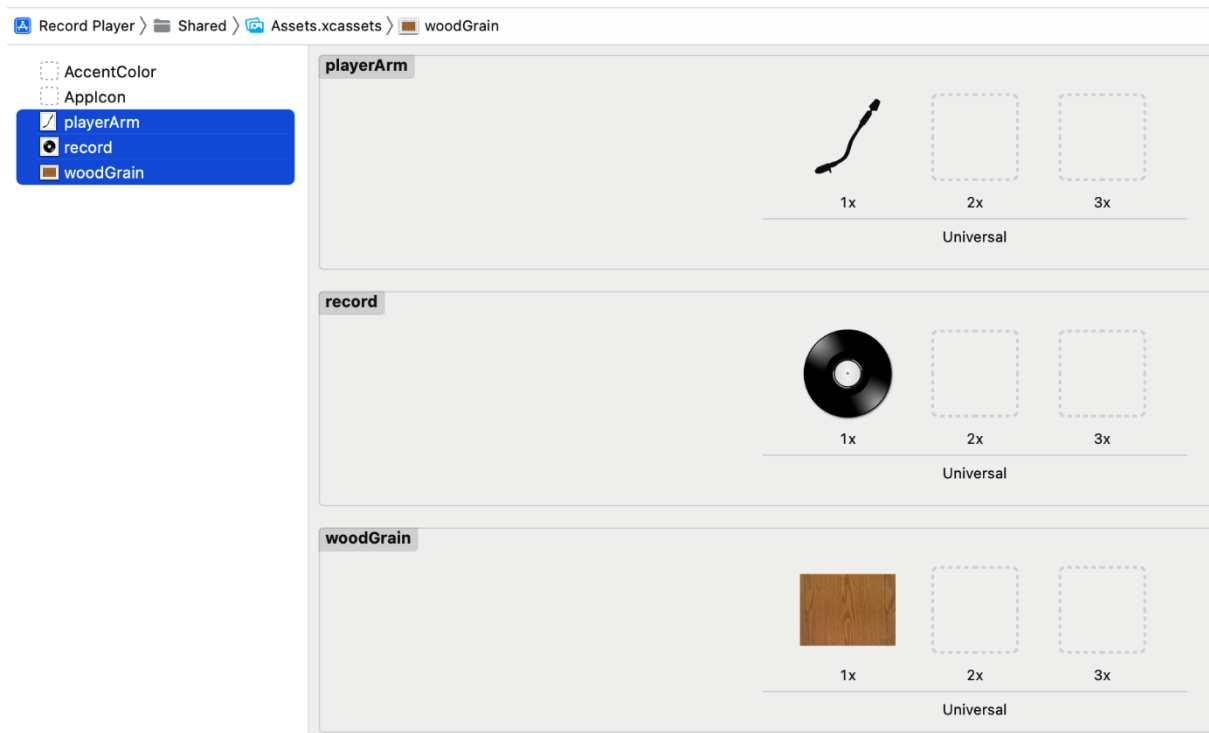








Chapter 04: Building a Record Player



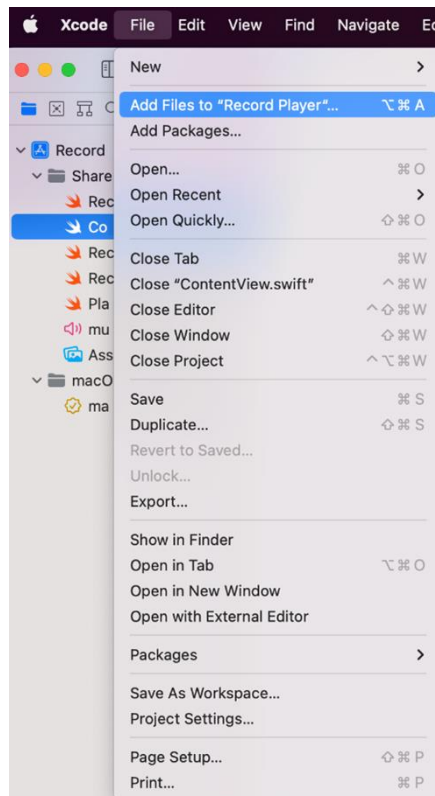
Choose options for adding these files:

Destination: ☒ Copy items if needed

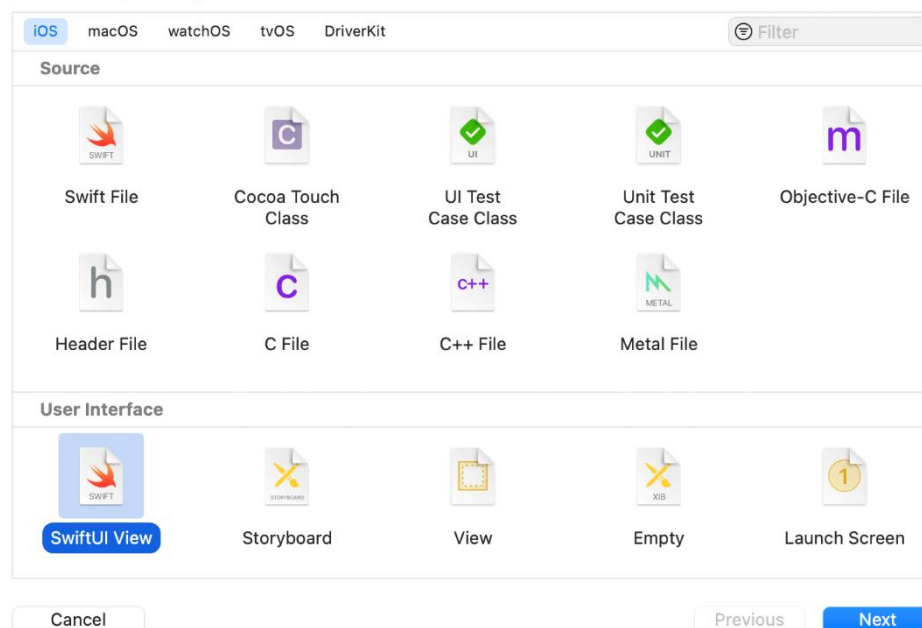
Added folders: ☐ Create groups
☒ Create folder references

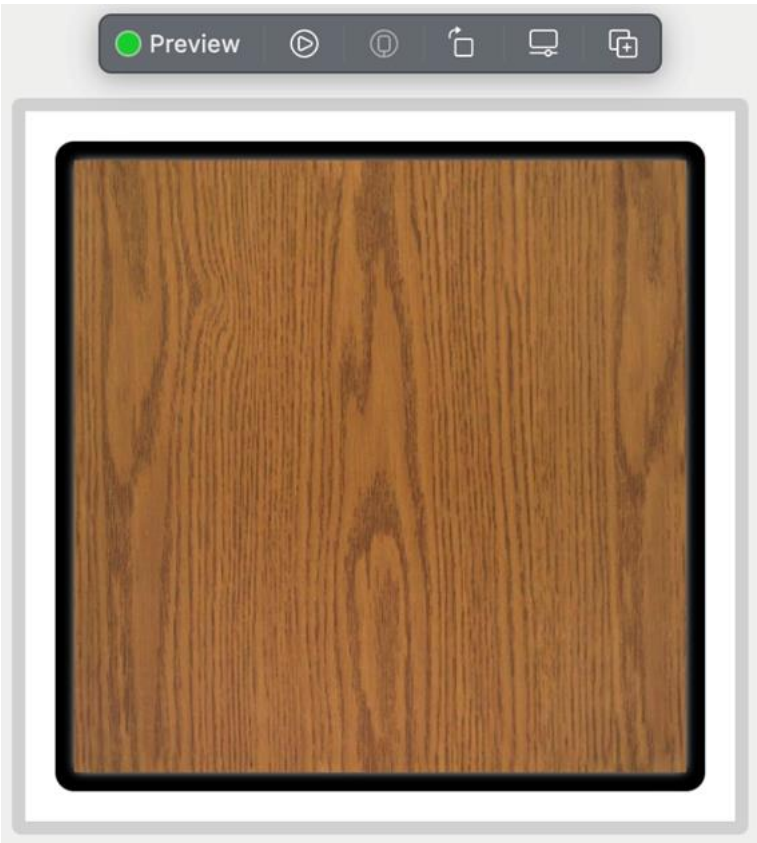
Add to targets: ☒ Record Player (iOS)
☒ Record Player (macOS)

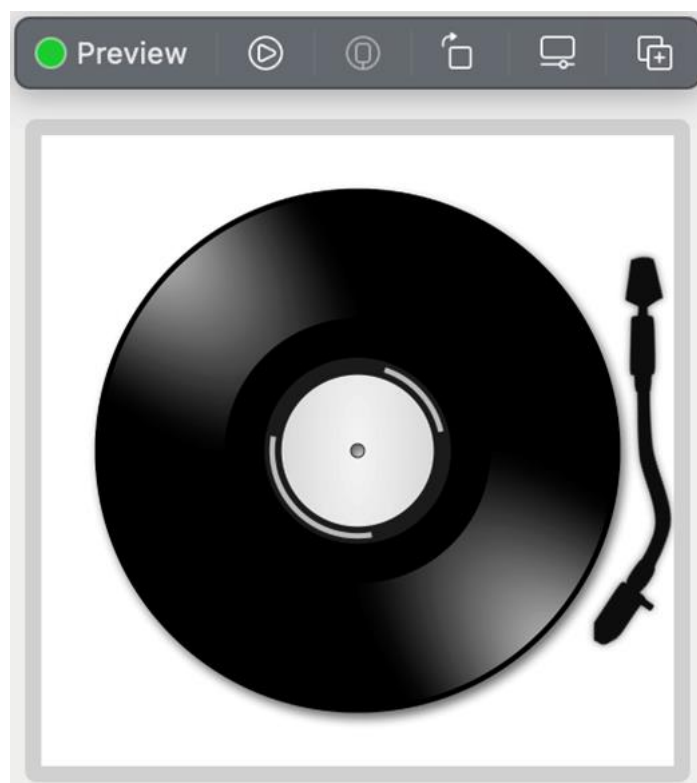
Cancel Finish



Choose a template for your new file:



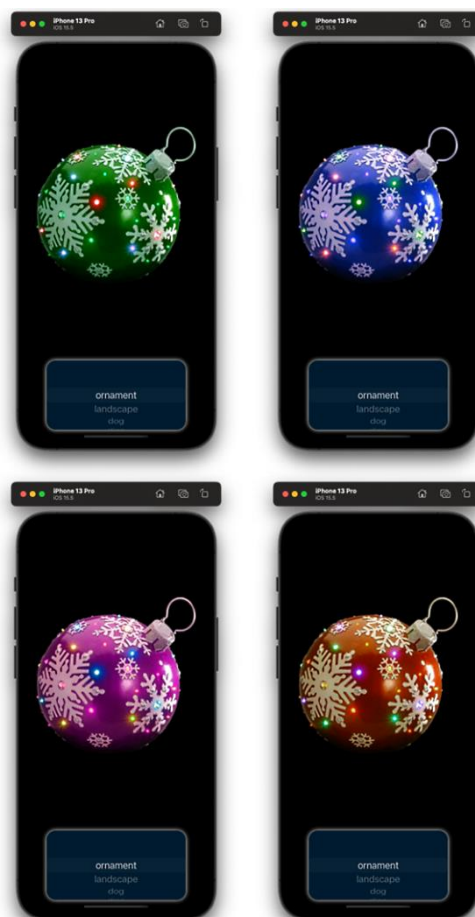
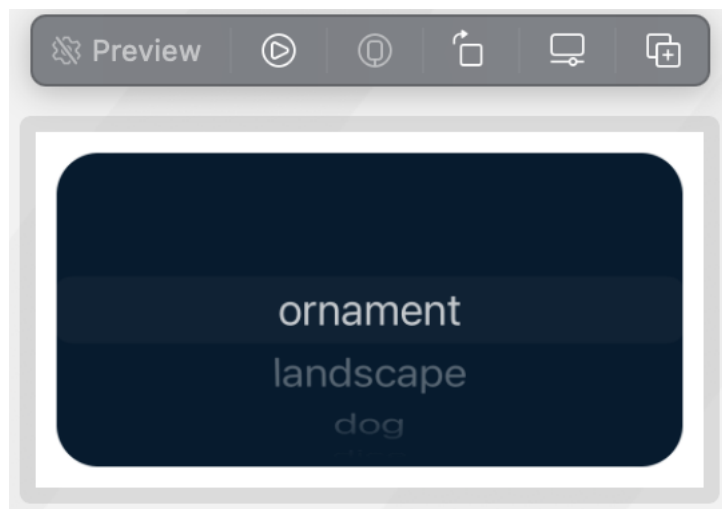




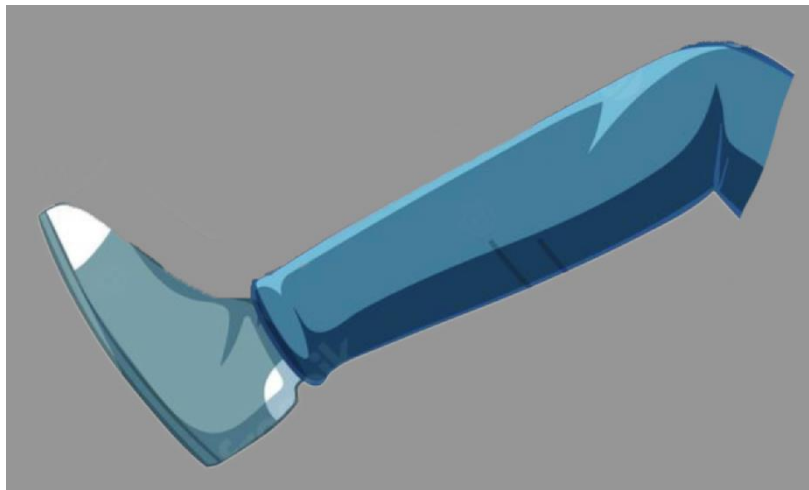
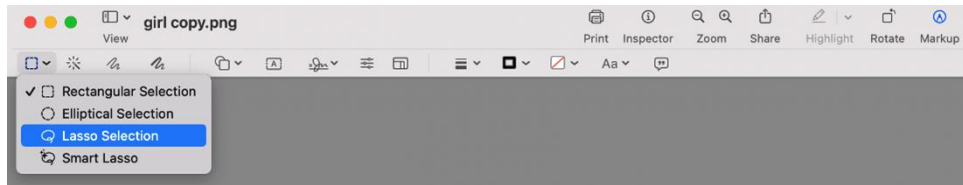
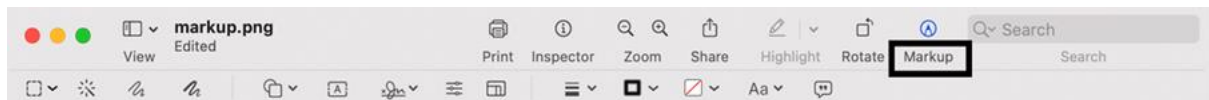




Chapter 05: Animating Colorful Kaleidoscope Effects



Chapter 06: Animating a Girl on a Swing





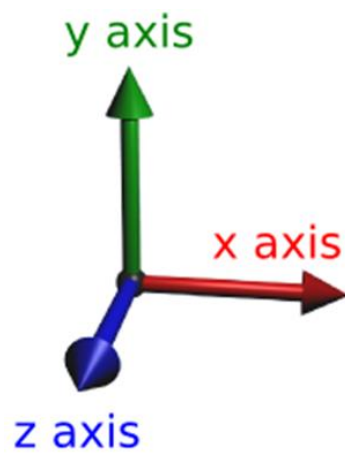


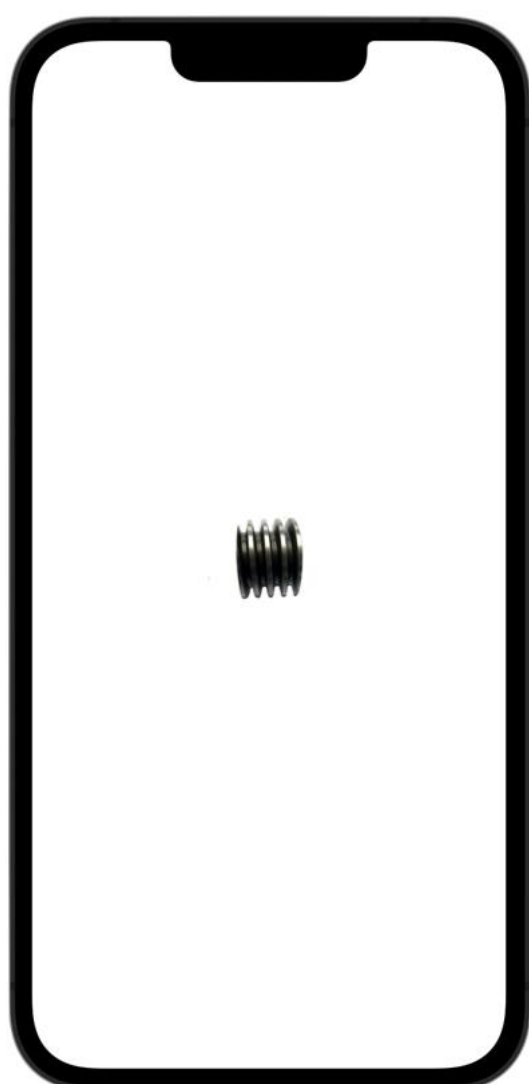


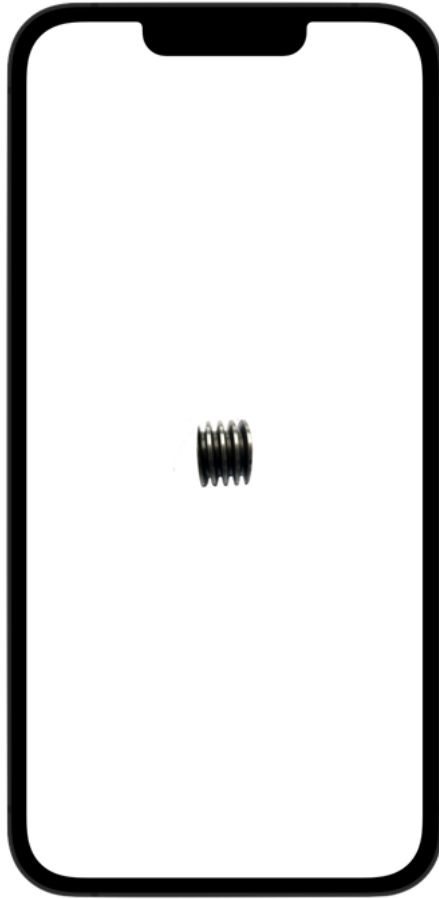


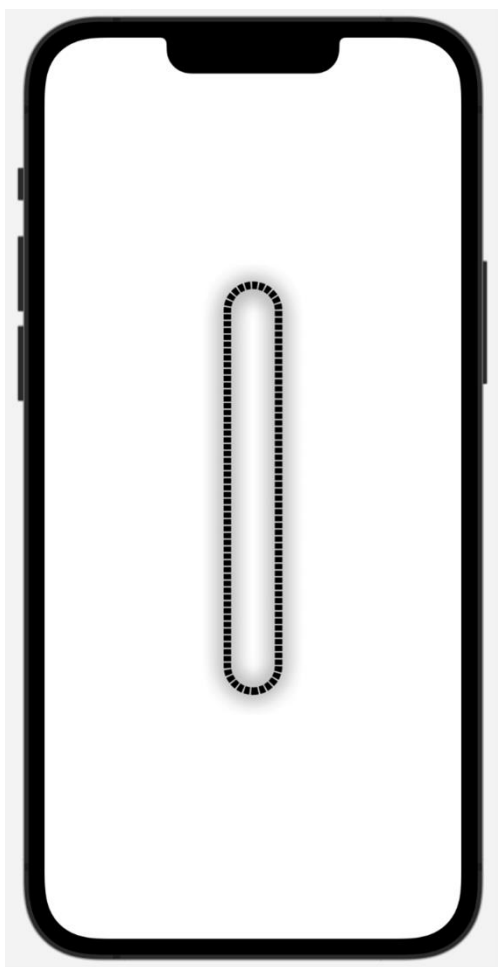


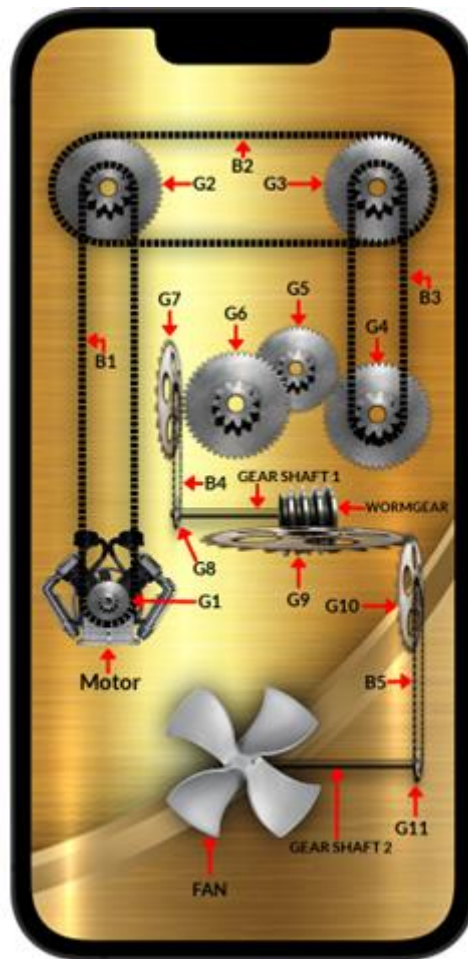
Chapter 07: Building a Series of Belts and Gears



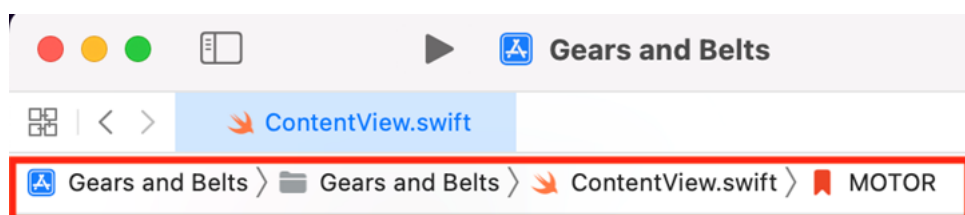


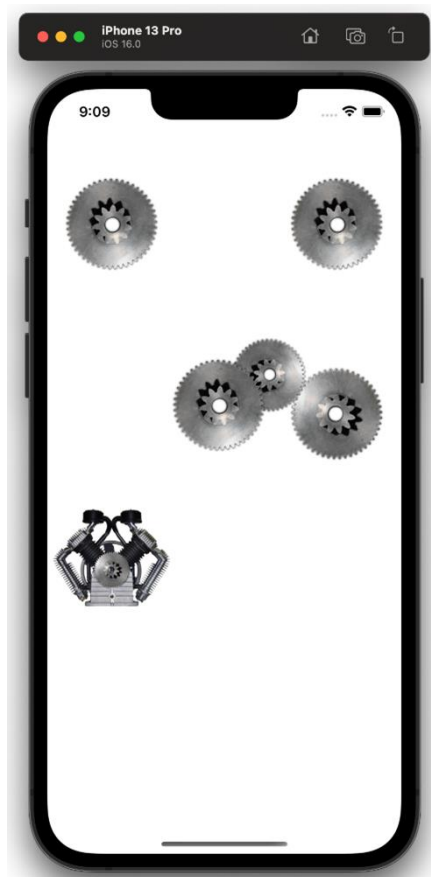
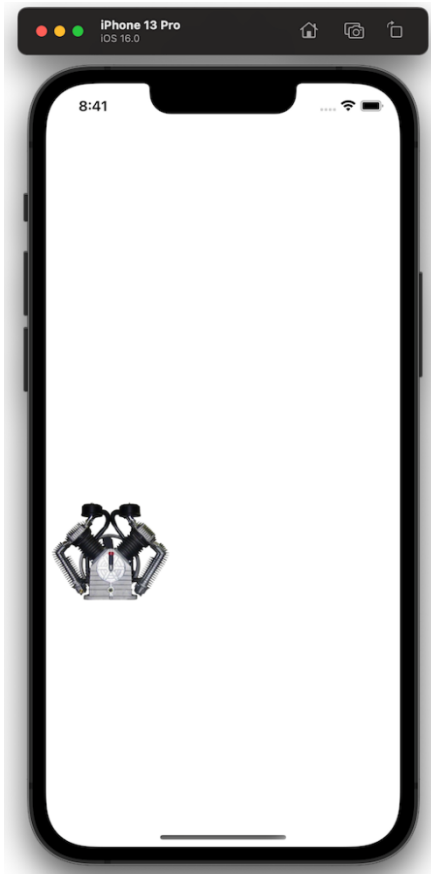


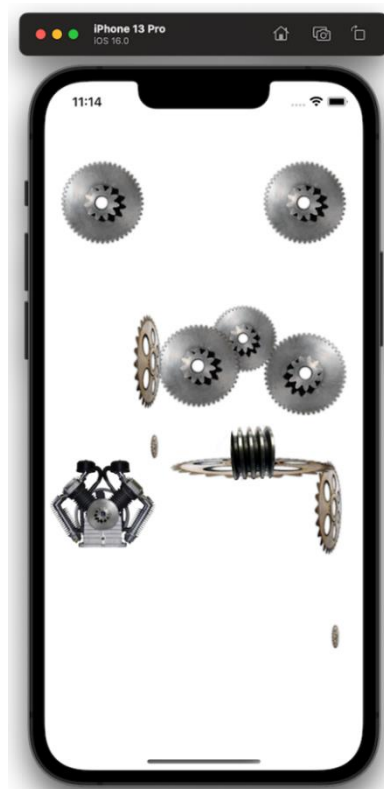
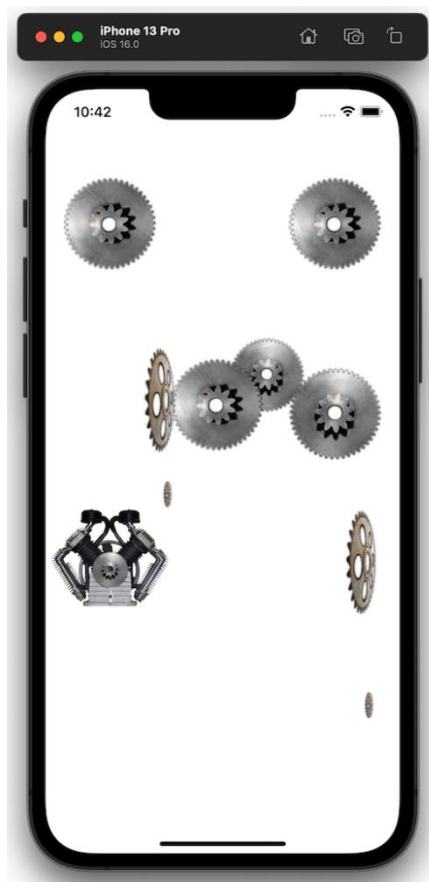


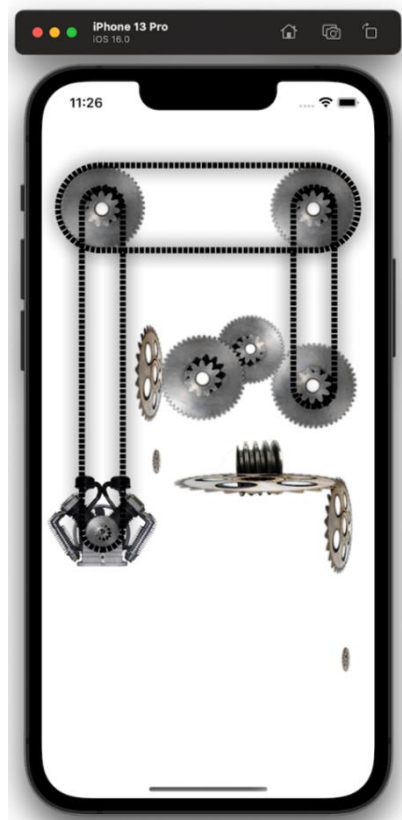
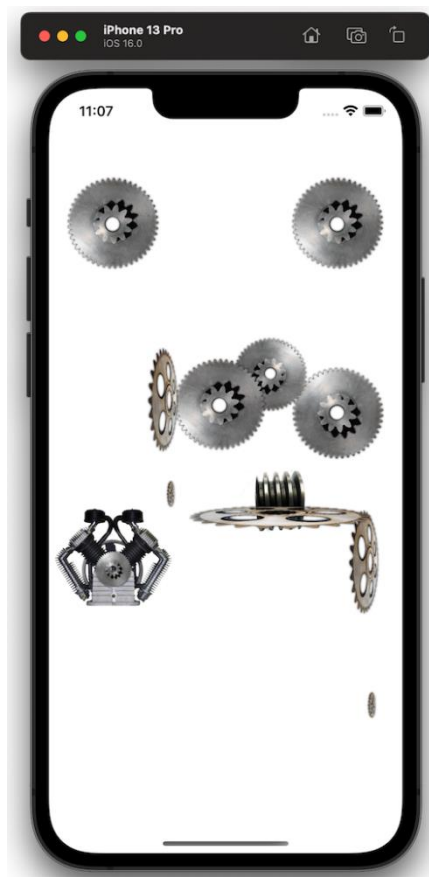


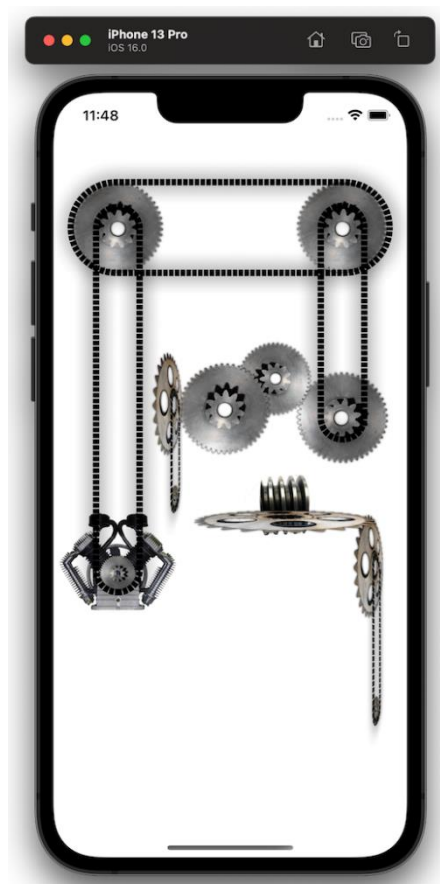
8 ZStack {
9 //MARK: - MOTOR

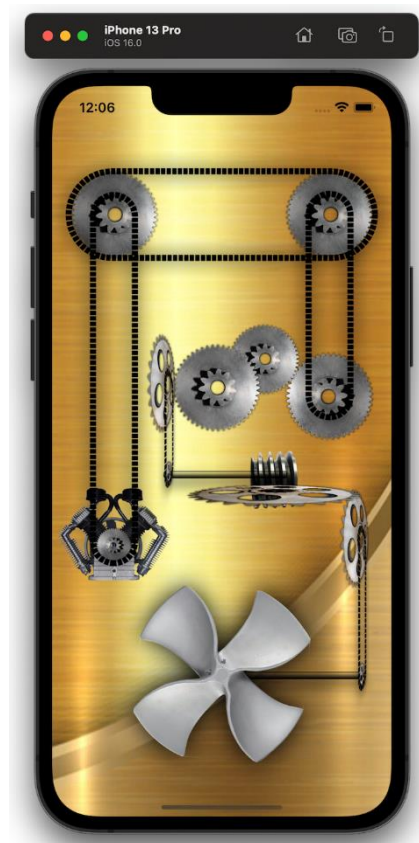












```

Gears and Belts
ContentView.swift
5 struct ContentView: View {
6     var body: some View {
7         ZStack {
8             //MARK:
9             Group {
10                 Image
11                 //MARK:
12                 Group {
13                     //MARK:
14                     Group {
15                         //MARK:
16                         GearView(gearImage: "doubleGear", gearWidth: 100, gearDegrees: 360, offsetGearX: 124, offsetGearY: -280, duration: 7)
17                         GearView(gearImage: "doubleGear", gearWidth: 100, gearDegrees: 360, offsetGearX: 124, offsetGearY: -70, duration: 7)
18                         GearView(gearImage: "doubleGear", gearWidth: 80, gearDegrees: -360, offsetGearX: 49, offsetGearY: -113, duration: 5)
19                         GearView(gearImage: "doubleGear", gearWidth: 100, gearDegrees: 360, offsetGearX: -6, offsetGearY: -80, duration: 7)
20                     }
21                 }
22             }
23             //MARK: - GEARS ANIMATING ON THE Y AXIS
24             Group {
25                 //Gear 7
26                 GearView(gearImage: "singleGear", gearWidth: 100, gearDegrees: -360, offsetGearX: -62, offsetGearY: -85, rotateDegrees: 76, duration: 7, xAxis: 0, yAxis: 1, zAxis: 0)
27                 //Gear 8
28                 GearView(gearImage: "singleGear", gearWidth: 25, gearDegrees: -360, offsetGearX: -59, offsetGearY: 19, rotateDegrees: 76, duration: 7, xAxis: 0, yAxis: 1, zAxis: 0)
29             }
30         }
31     }
32 }

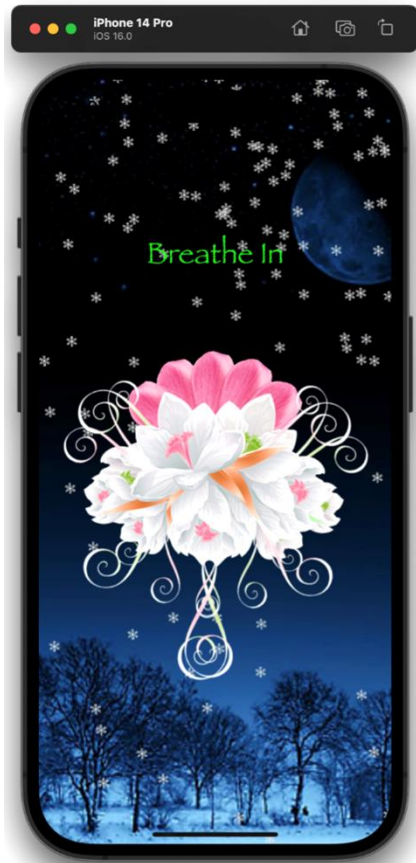
```

Chapter 08: Animating a Bouquet of Flowers



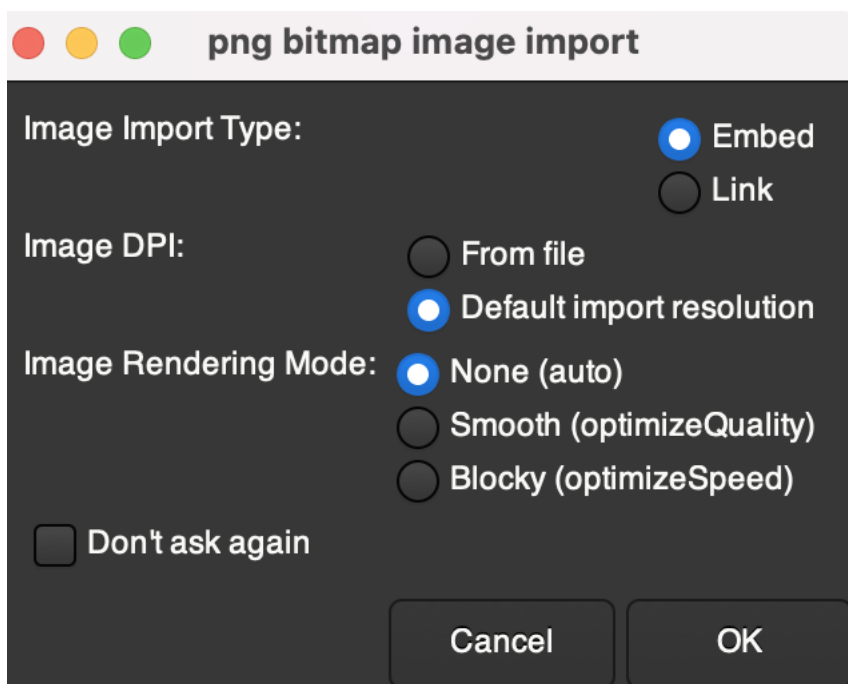


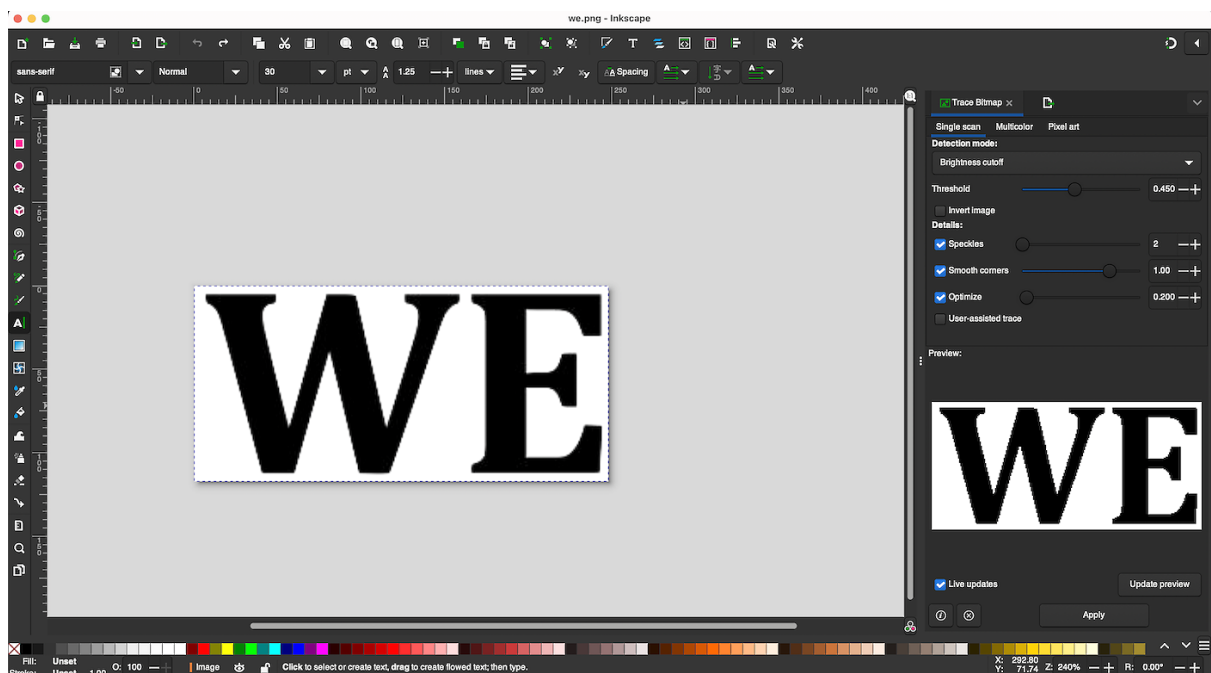
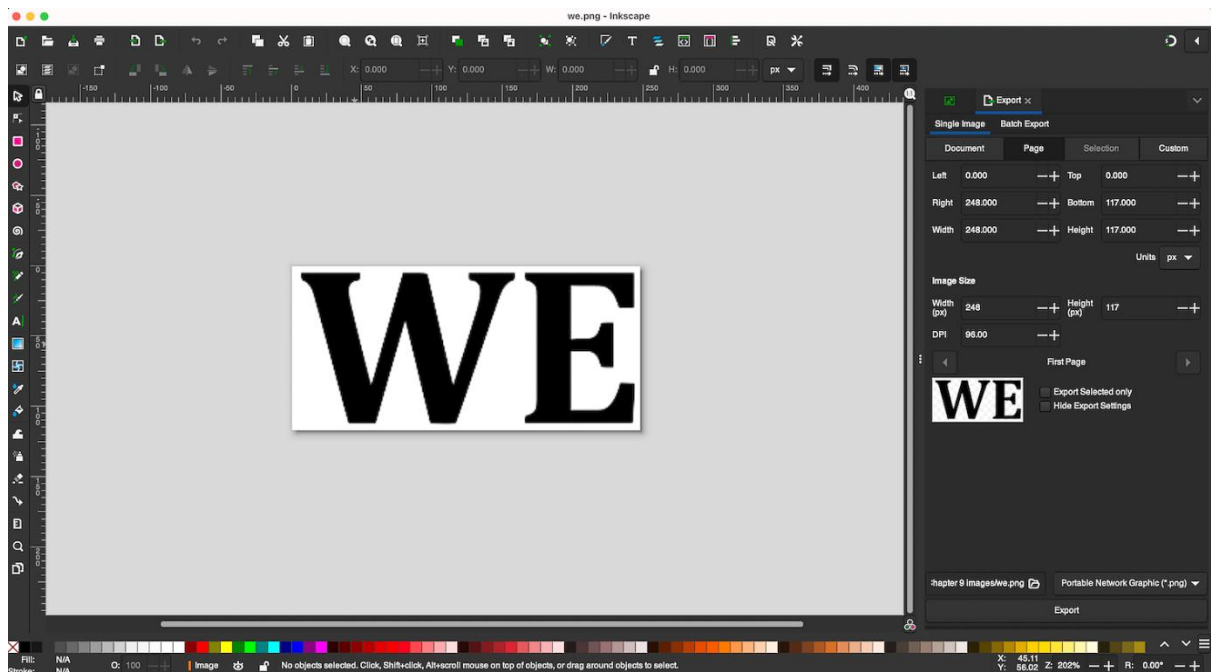


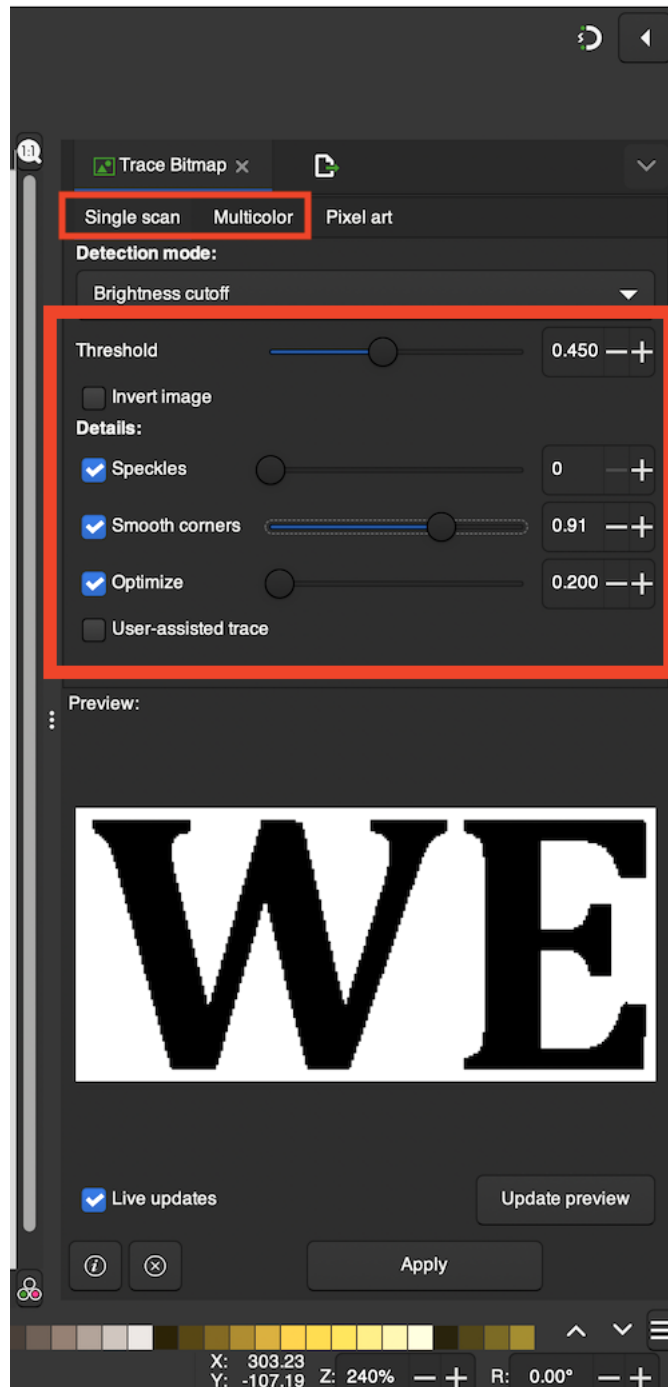


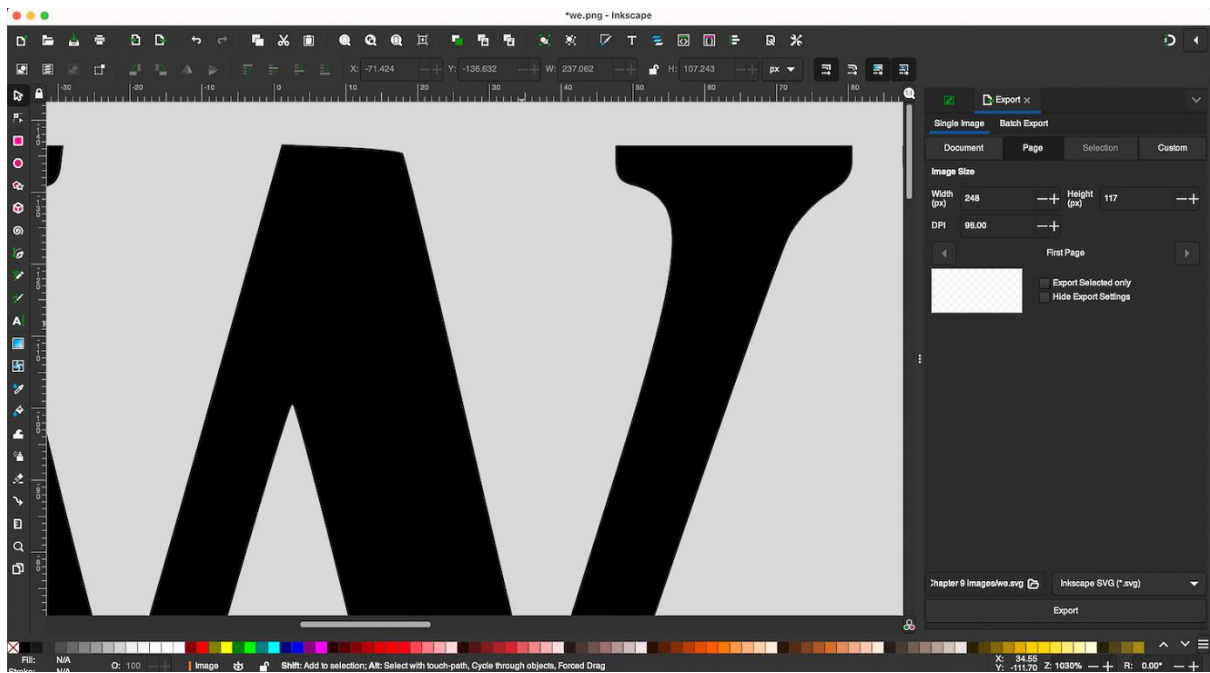
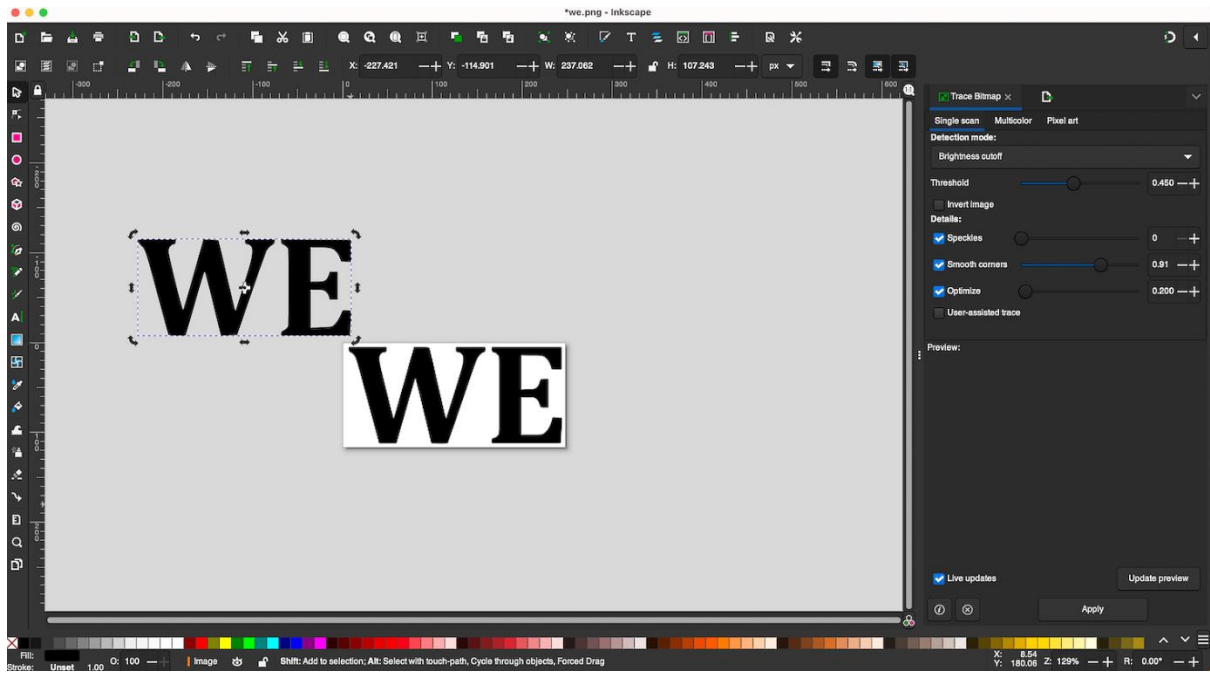
Chapter 09: Animating Strokes around Shapes

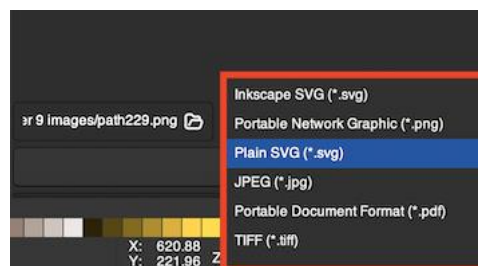
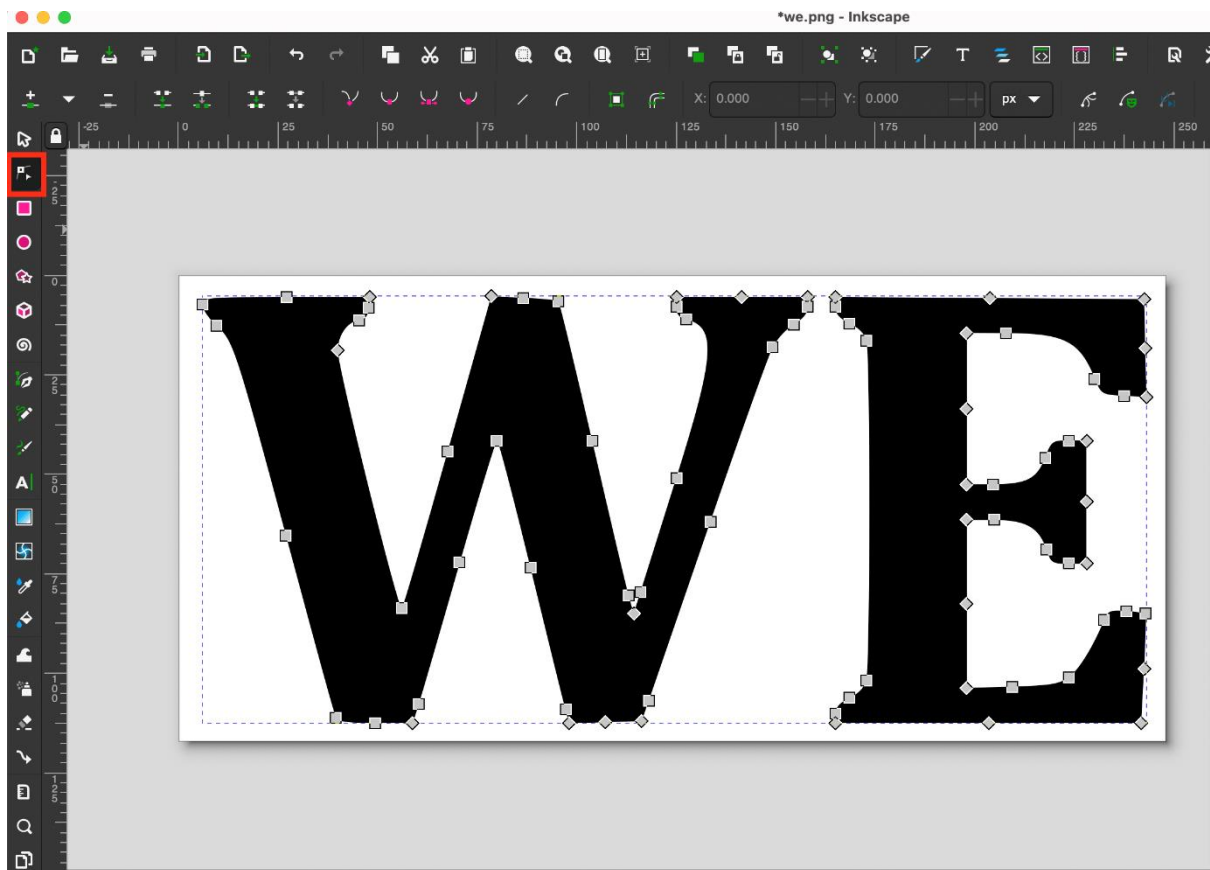
WE

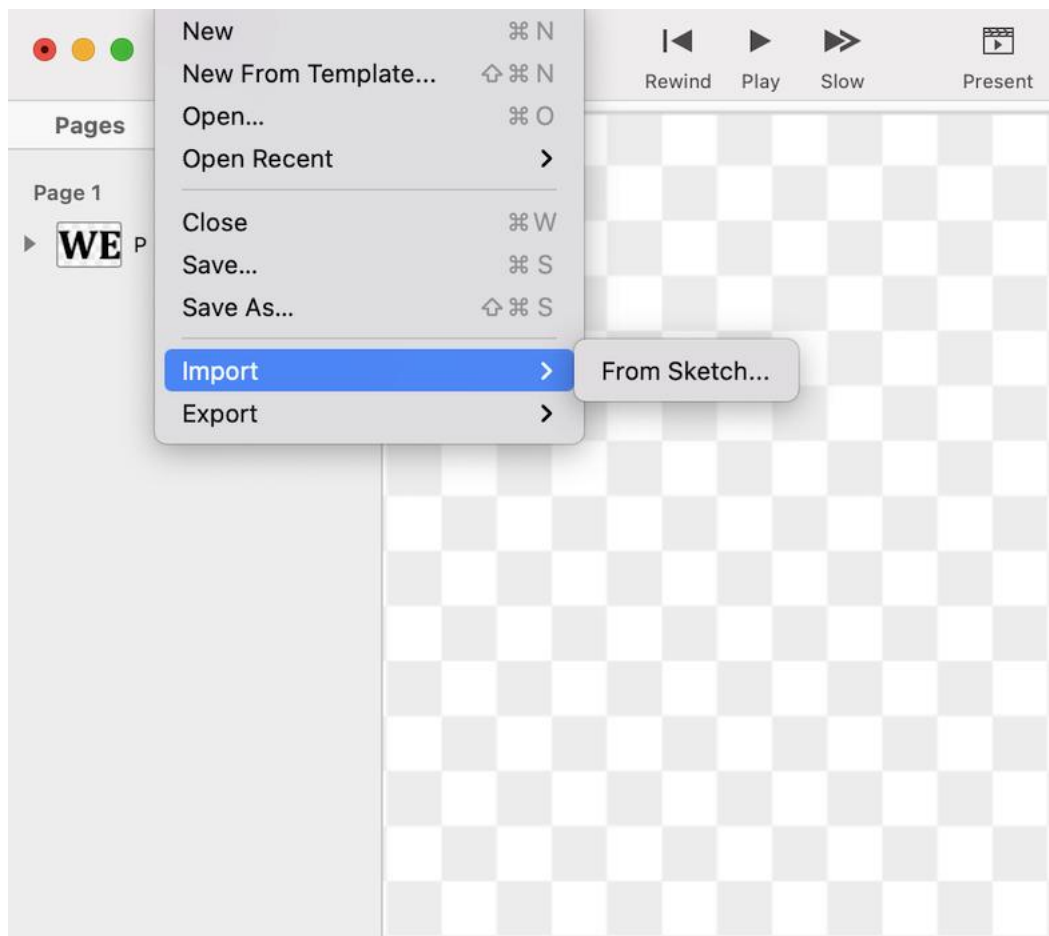
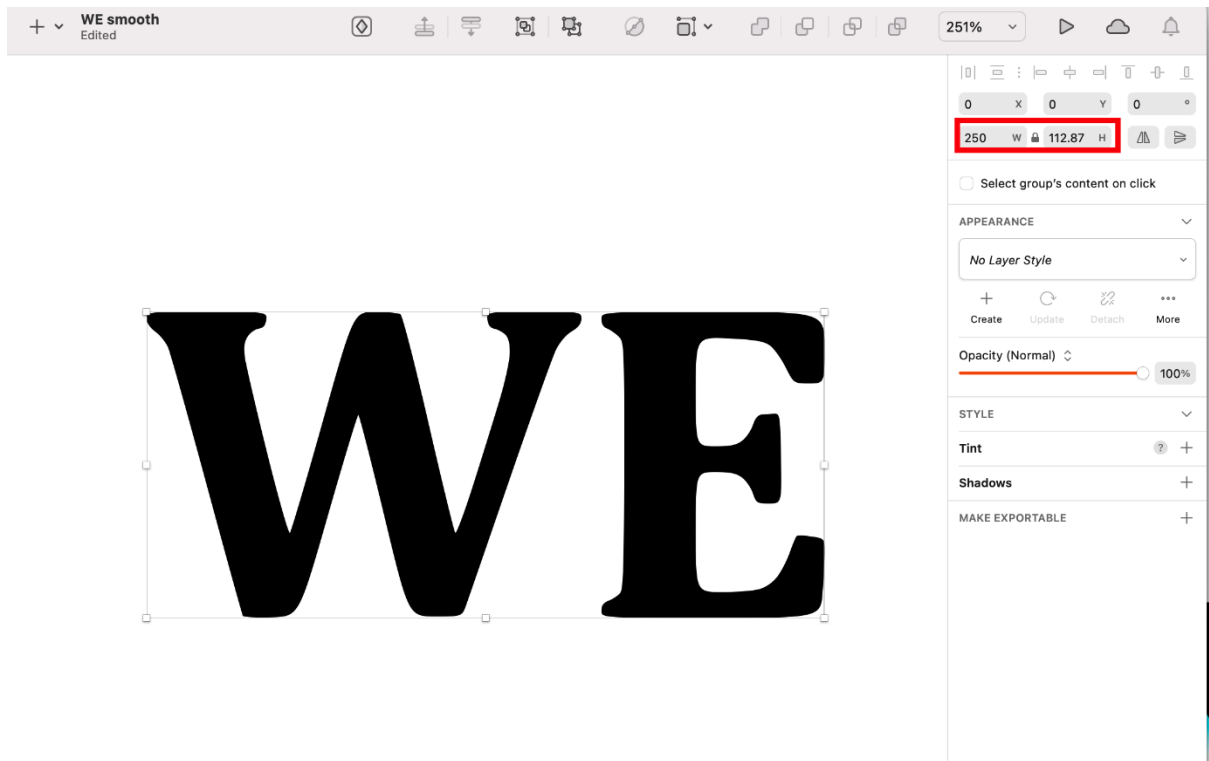












Import From Sketch



Sketch
Running

Layer Flattening ☐ Flatten layers with the "***" suffix in the name

Import text layers as ☐ Text Layers (CATextLayer – More flexible)

☒ Image Layers (CALayer – More accurate)

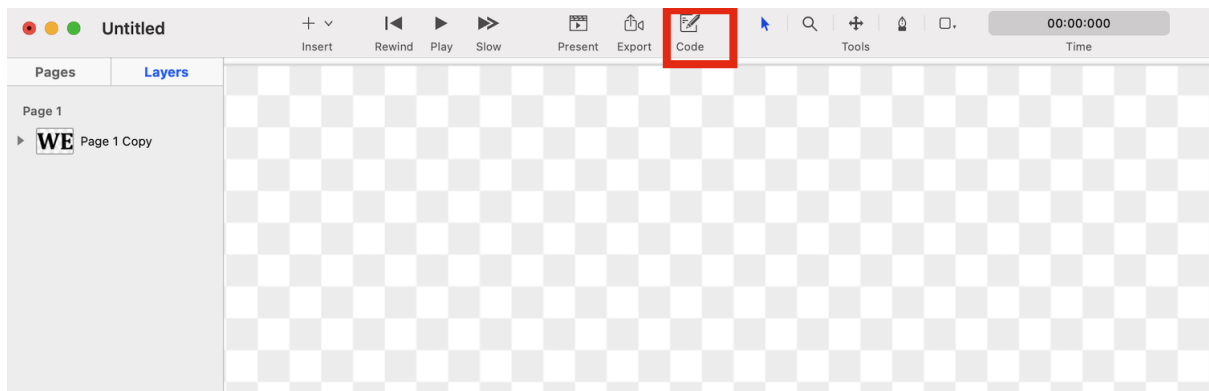
Import paths as ☒ Shape Layers (CAShapeLayer – More flexible)

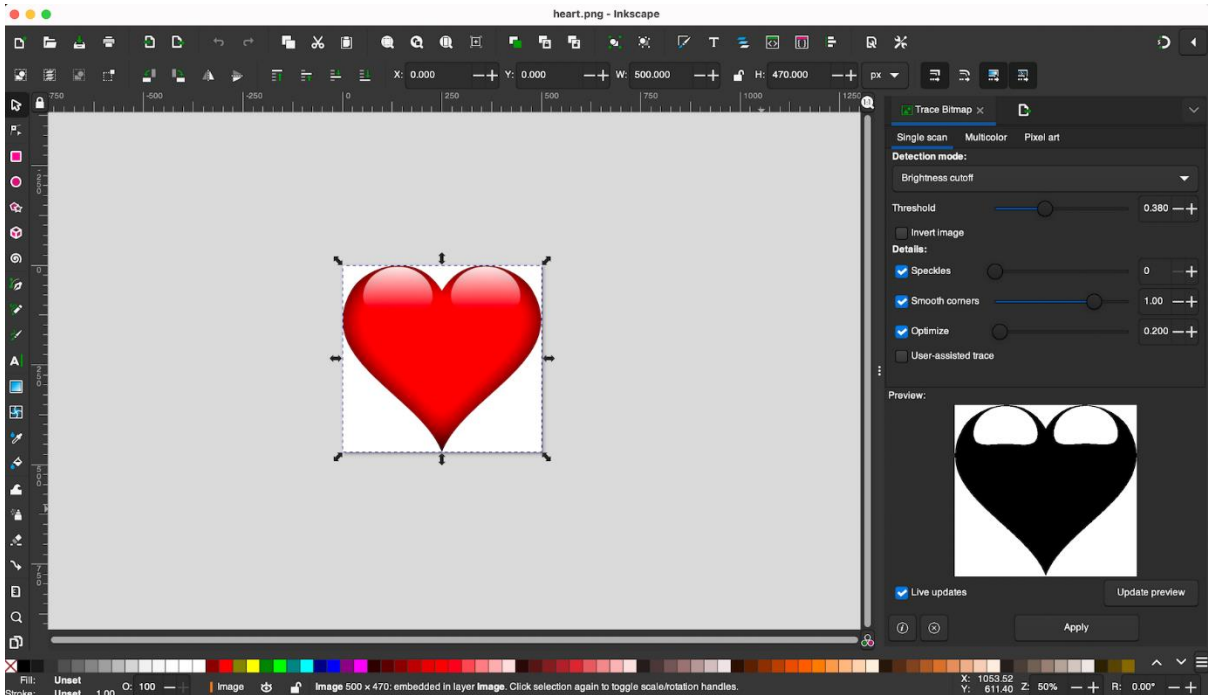
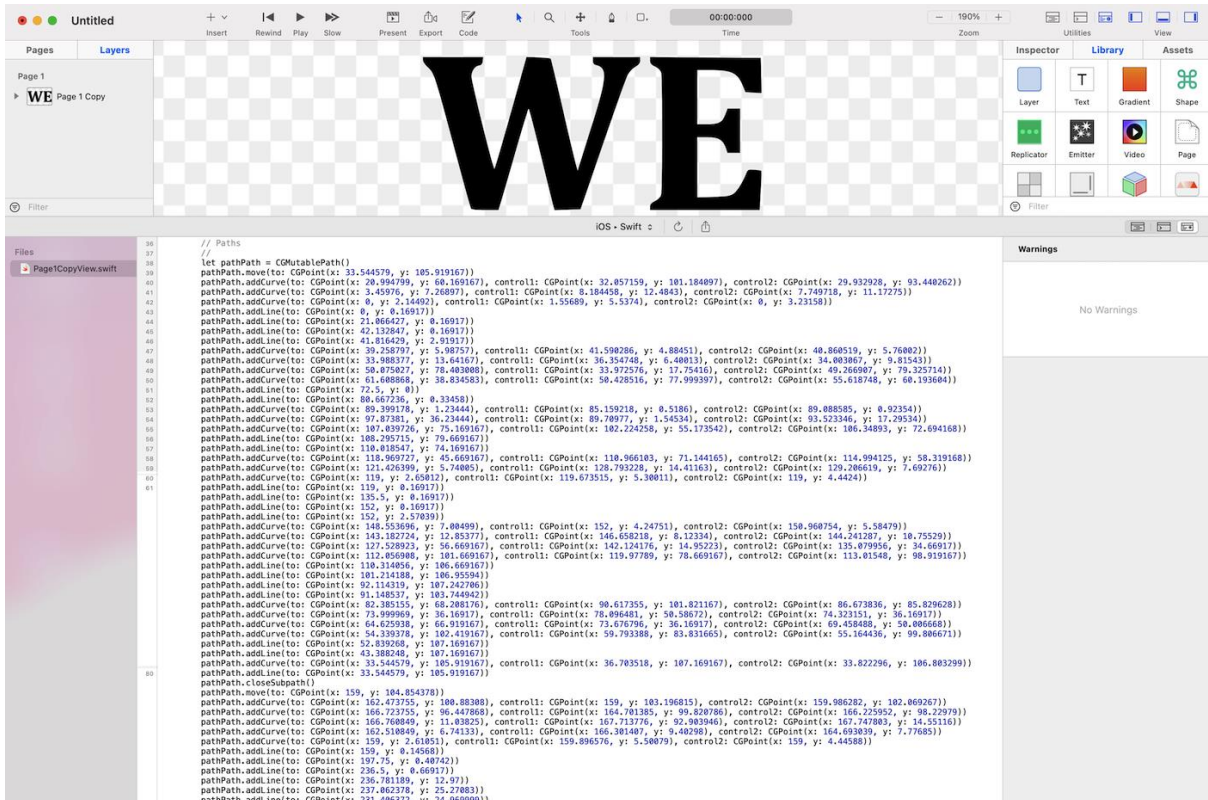
☐ Image Layers (CALayer – More accurate)

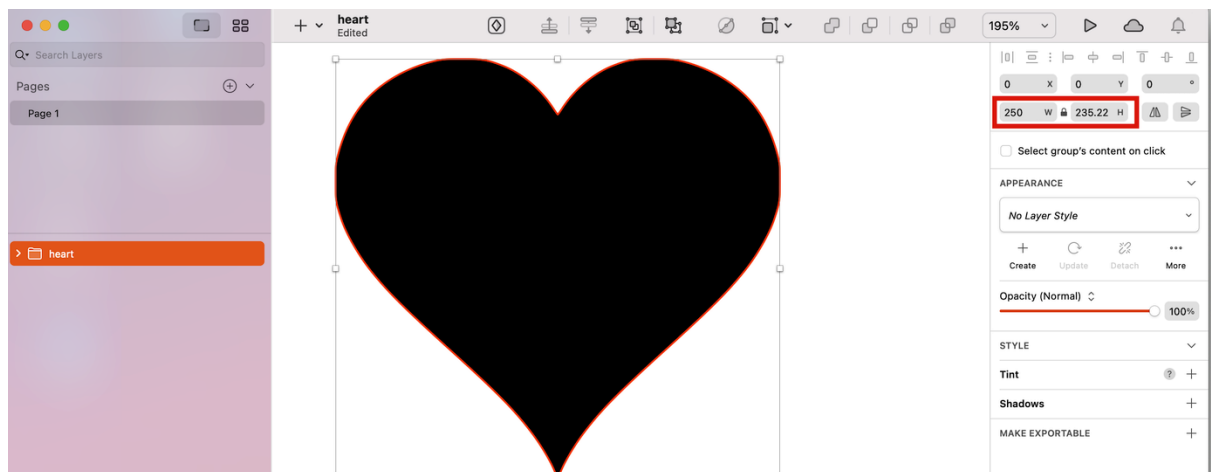
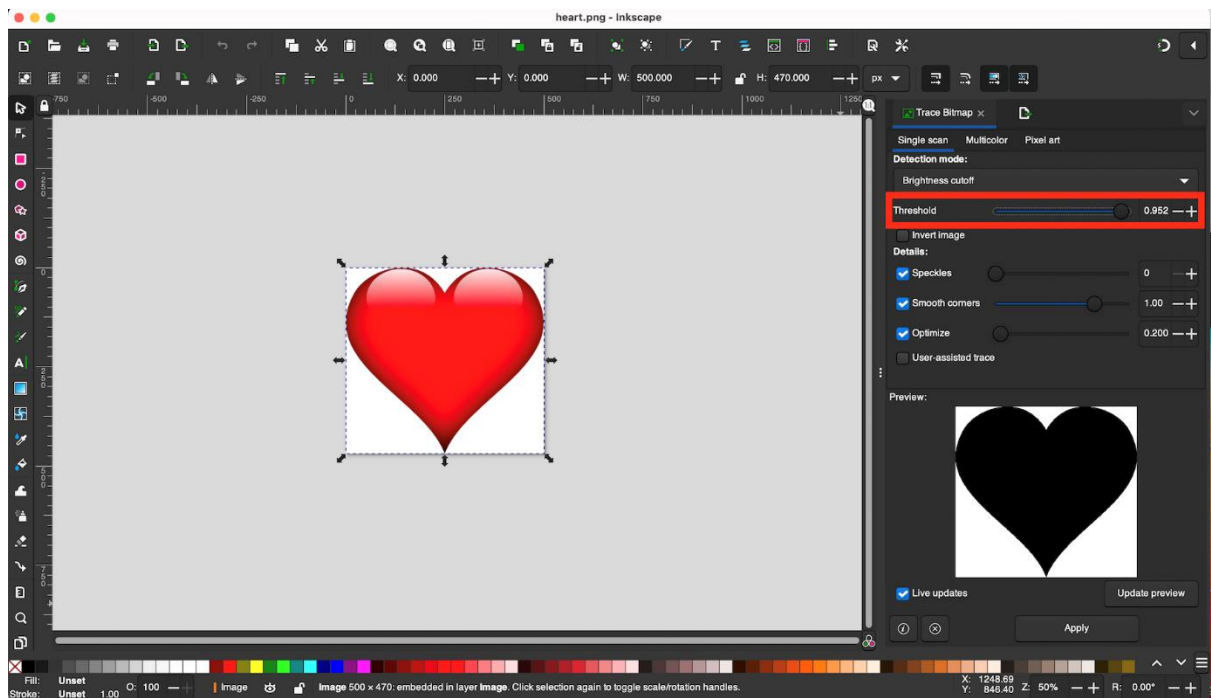
Import images at scale

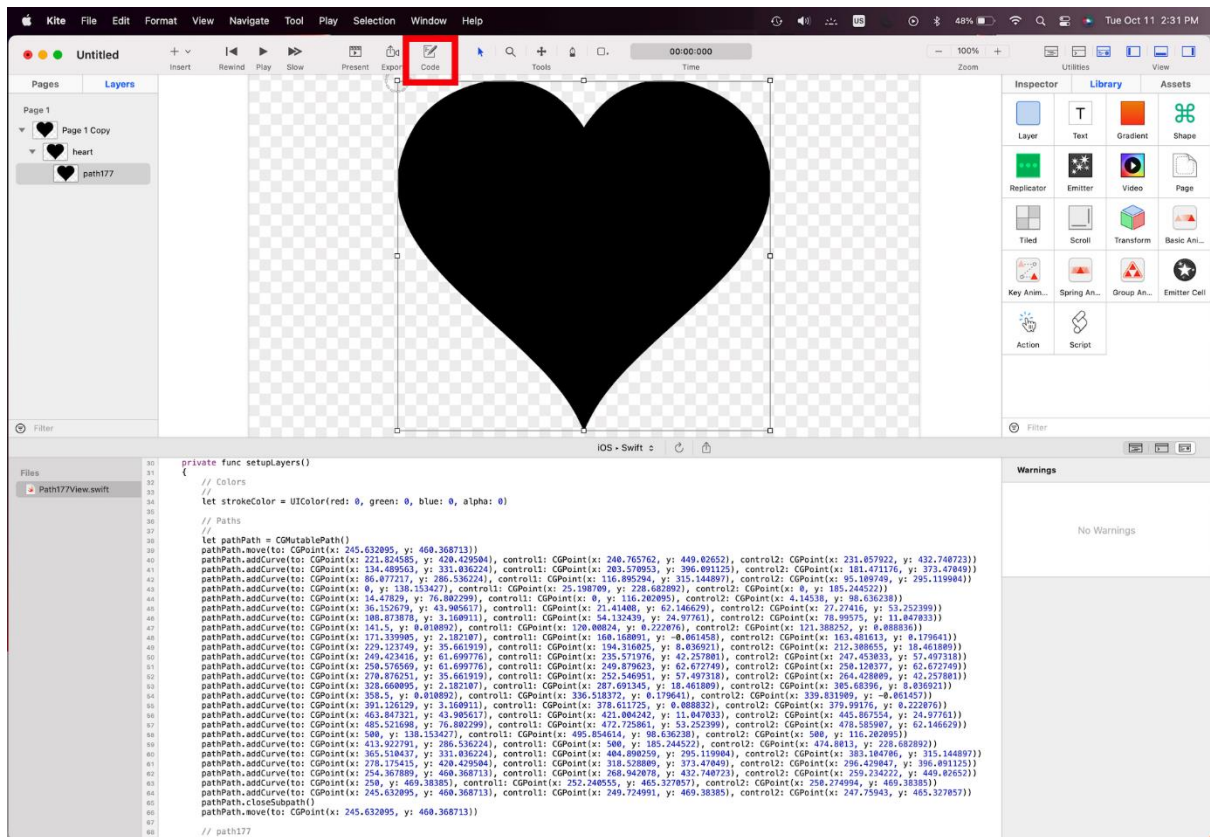
Cancel

Import









WE





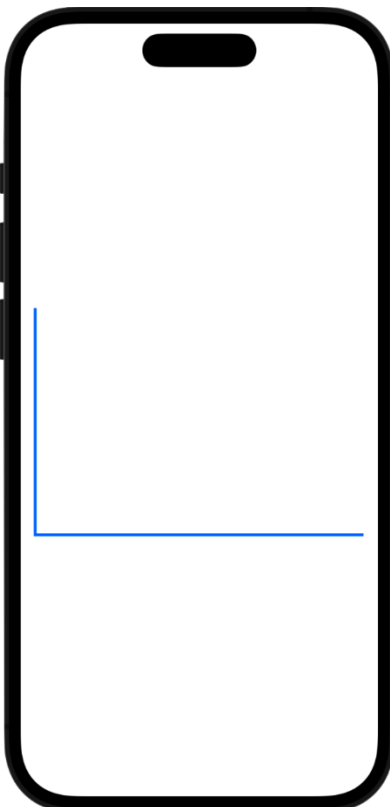
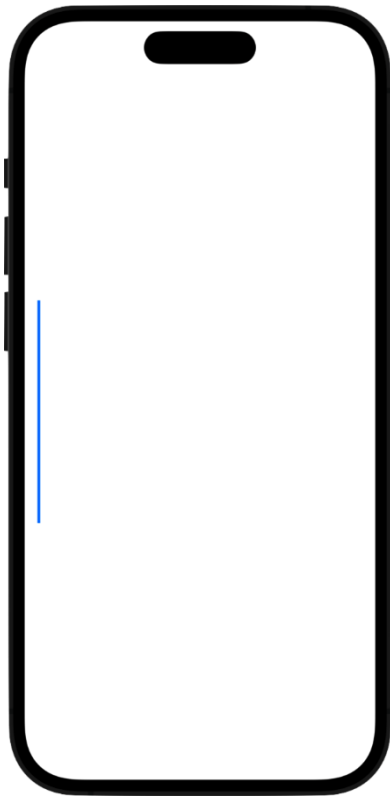
iPhone 14 Pro
iOS 16.0

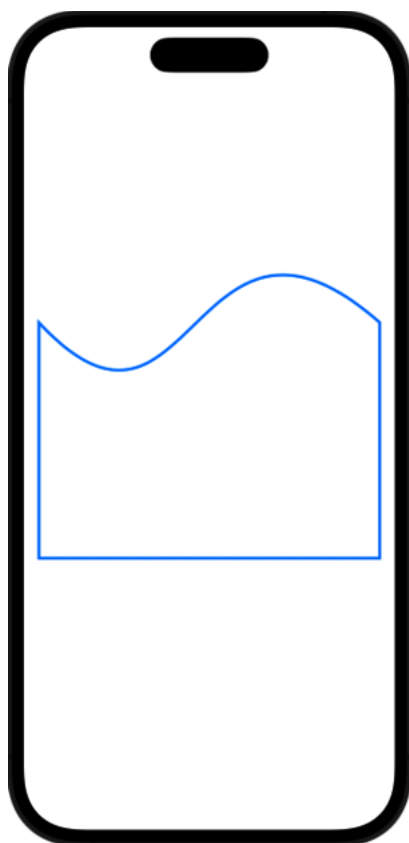
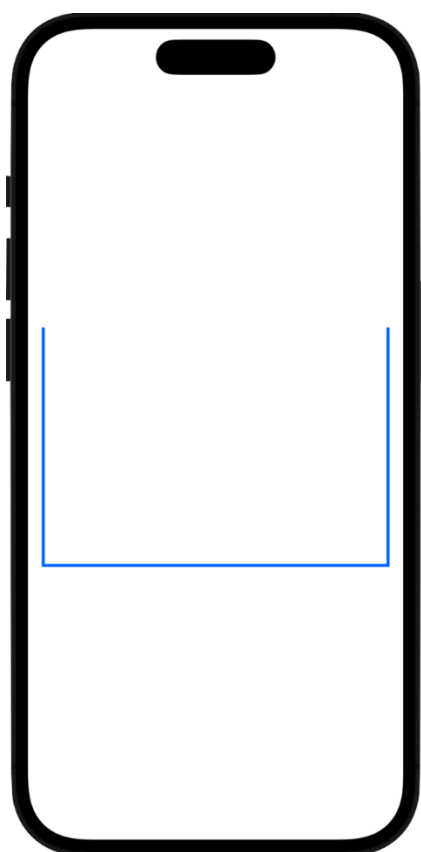


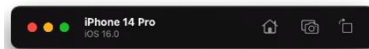
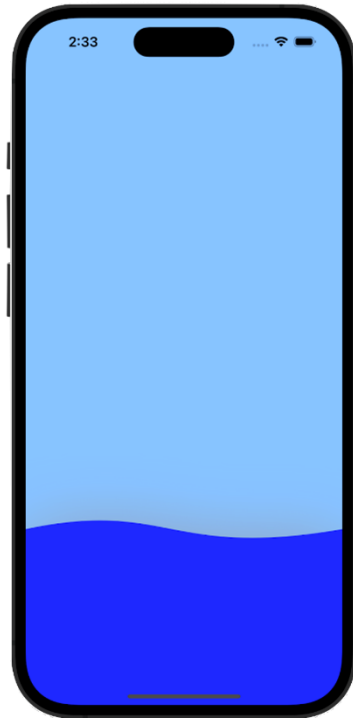
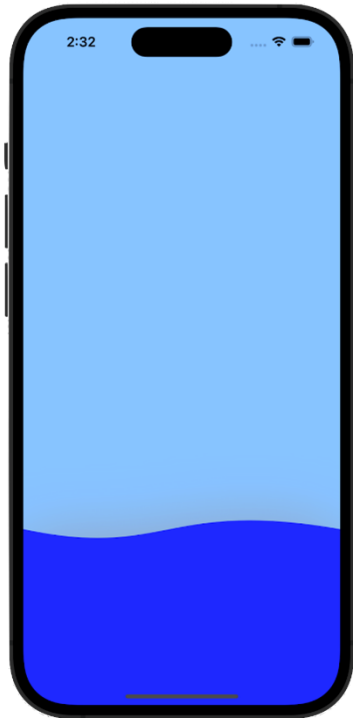
WE

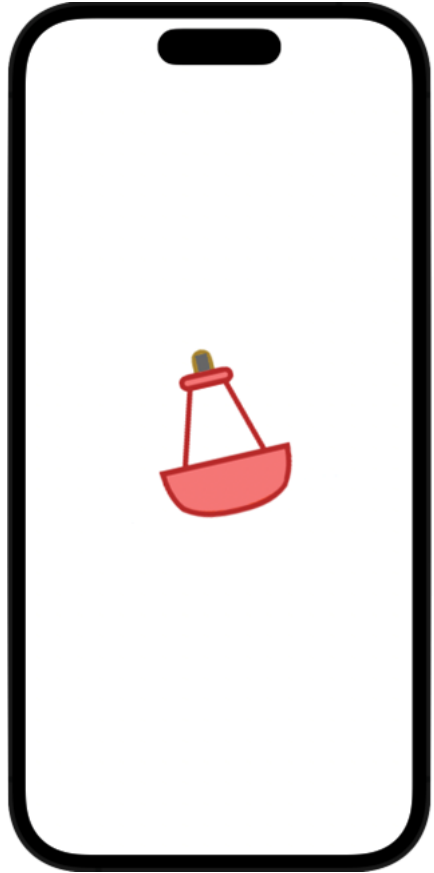
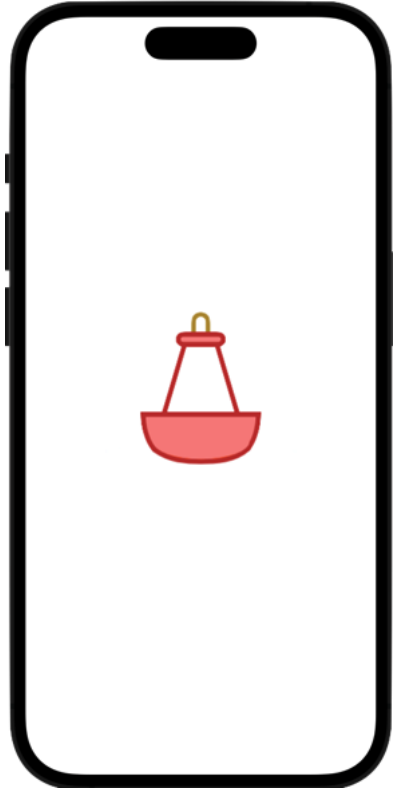


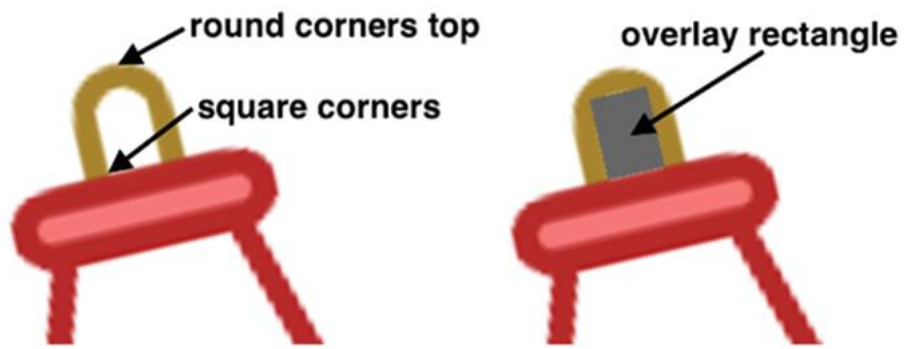
Chapter 10: Creating an Ocean Scene













Chapter 11: Animating an Elevator

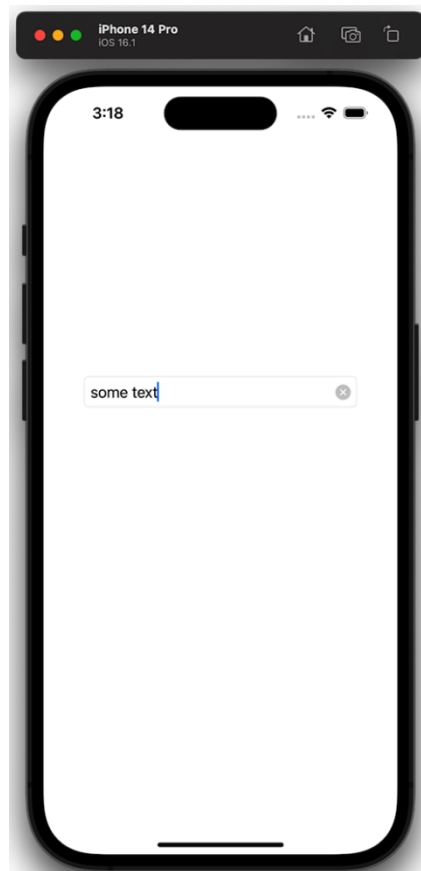


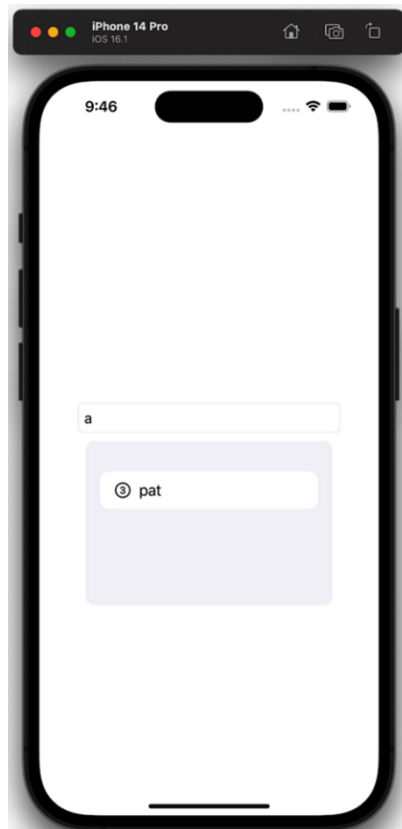
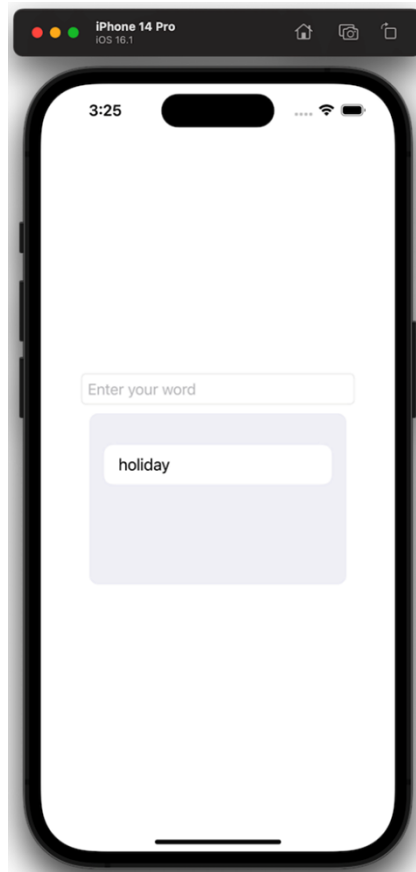


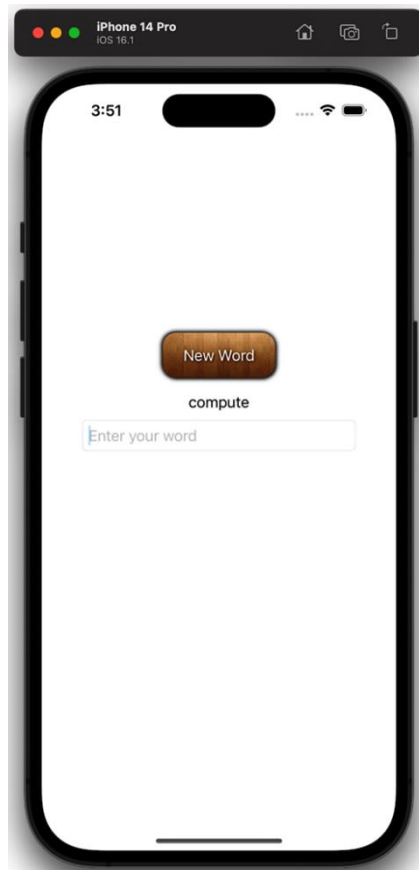


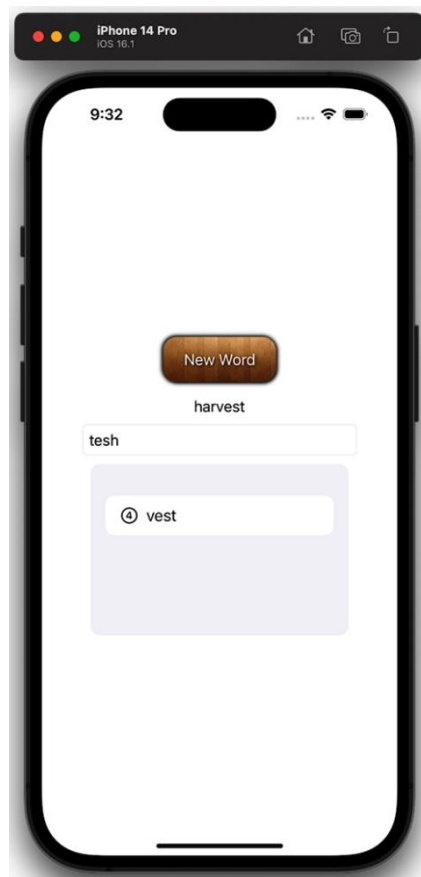


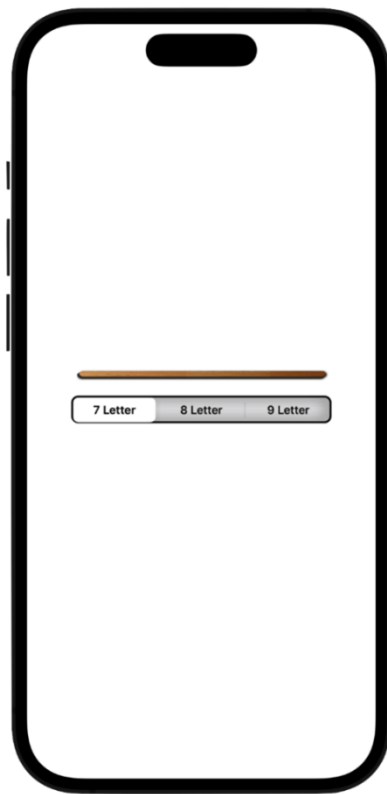
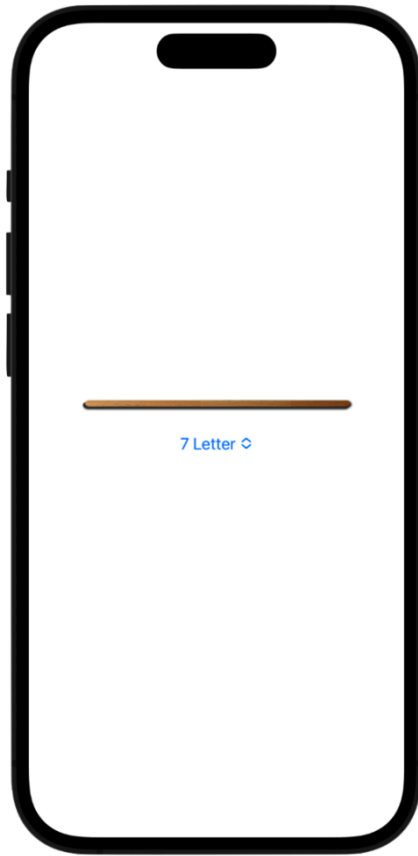
Chapter 12: Creating a Word Game (Part 1)

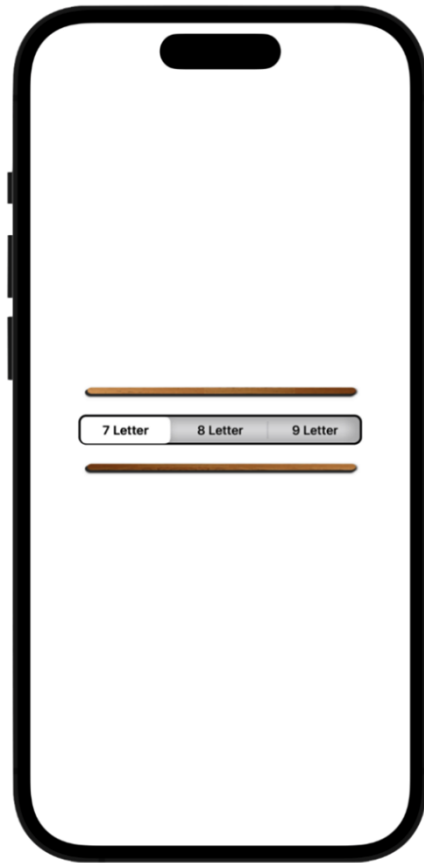




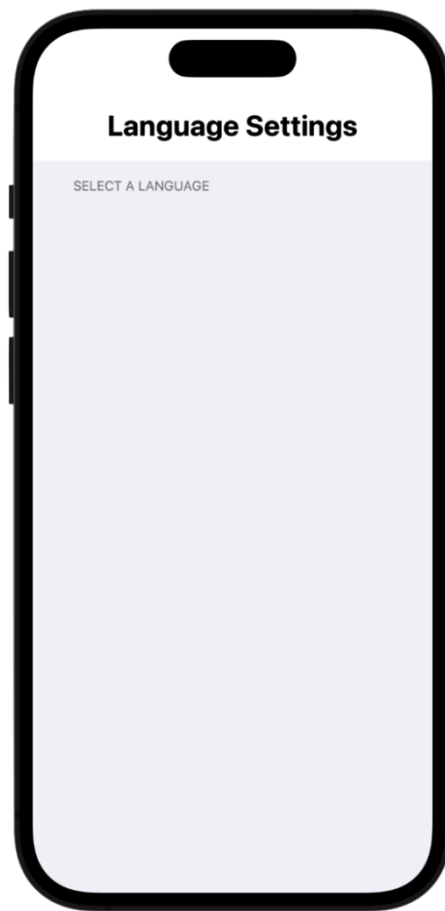


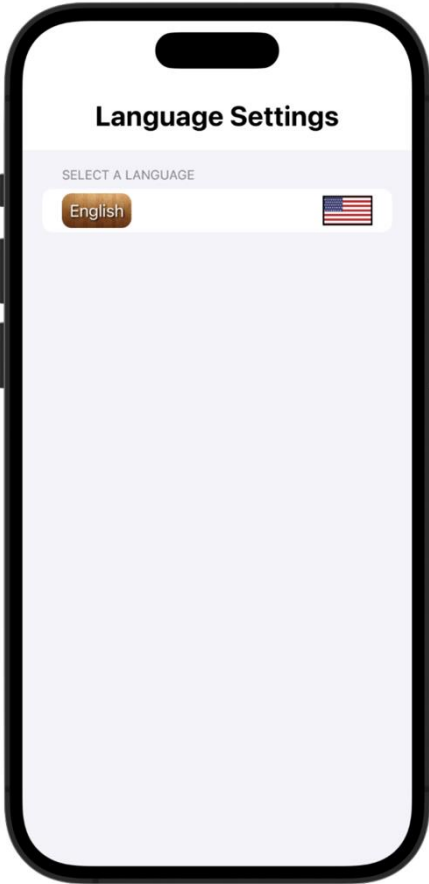




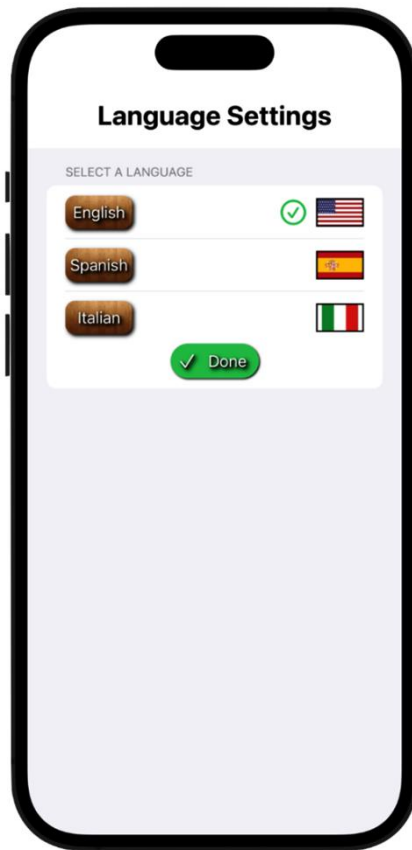


Chapter 13: Creating a Word Game (Part 2)





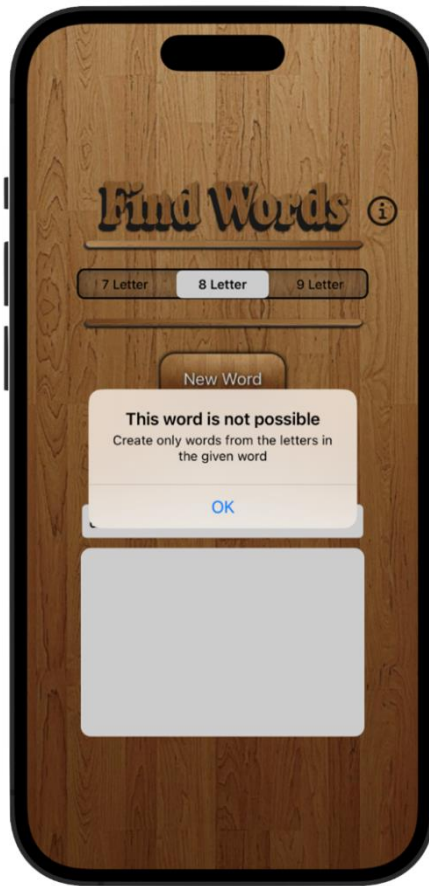








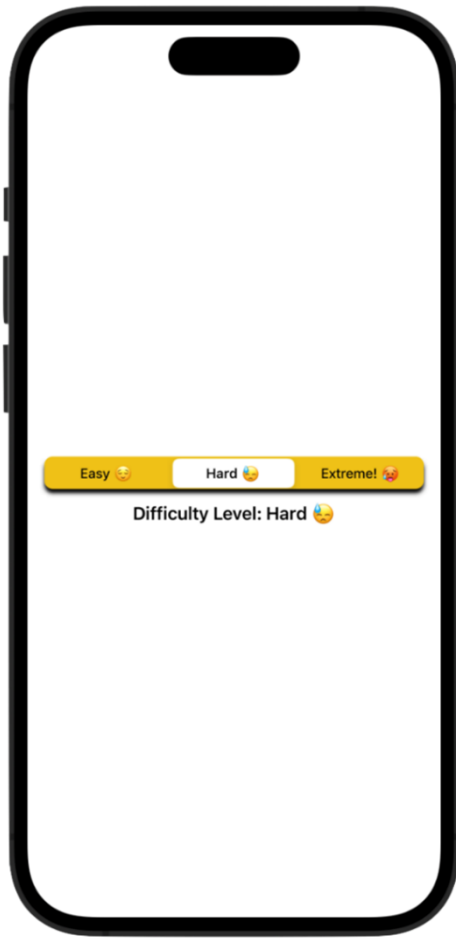


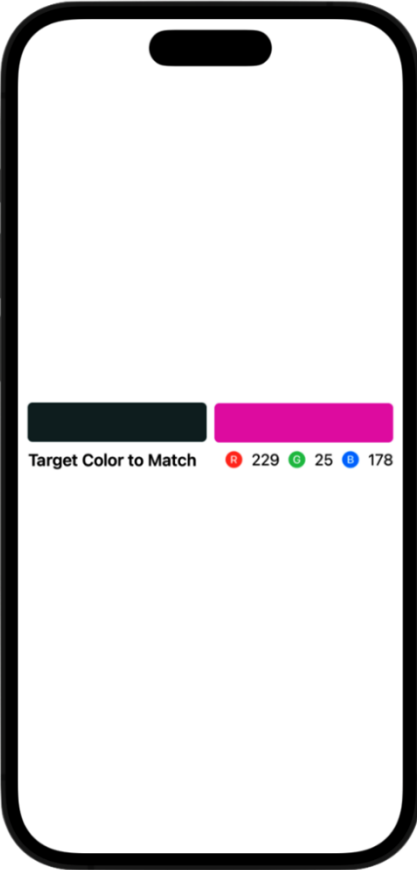


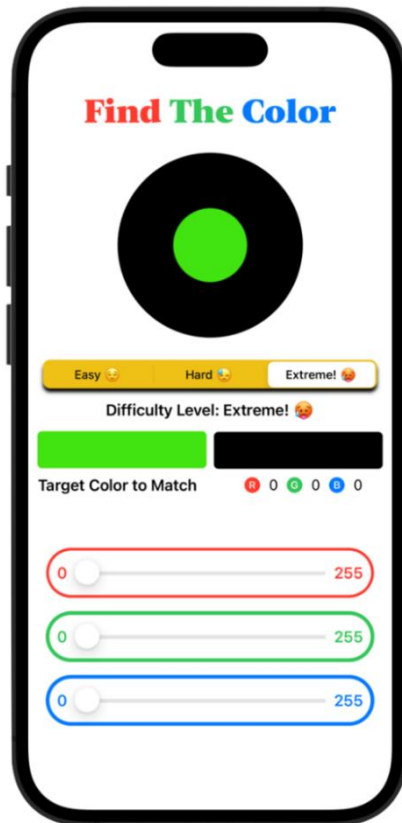
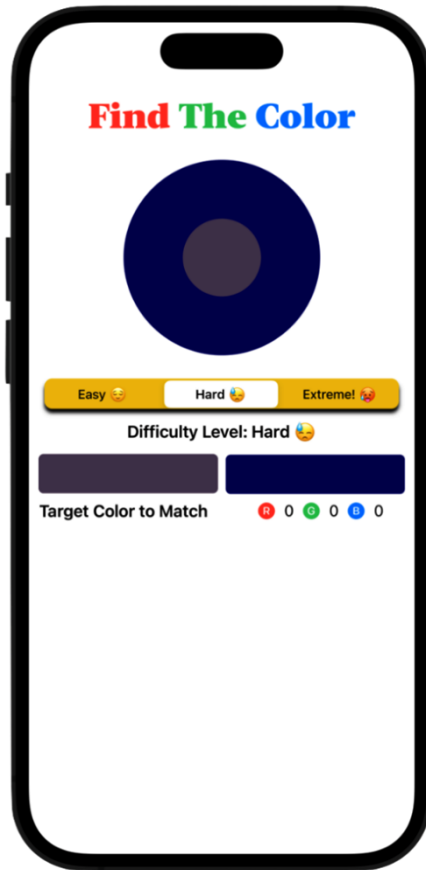


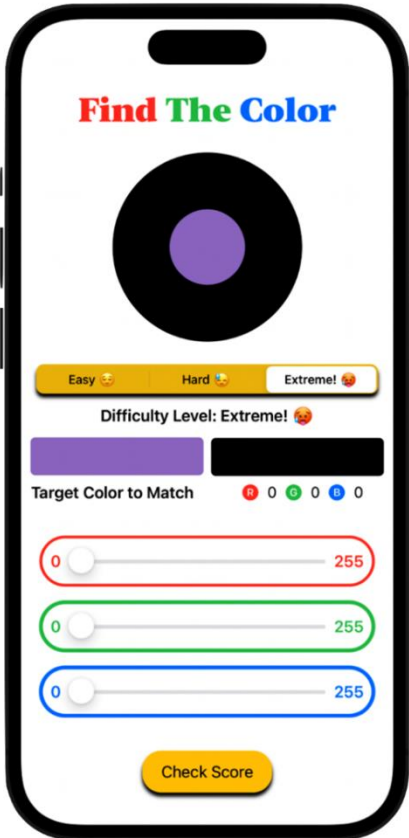
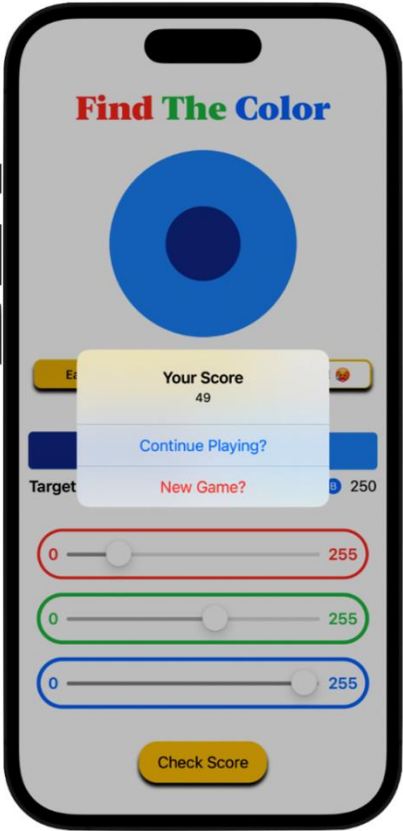
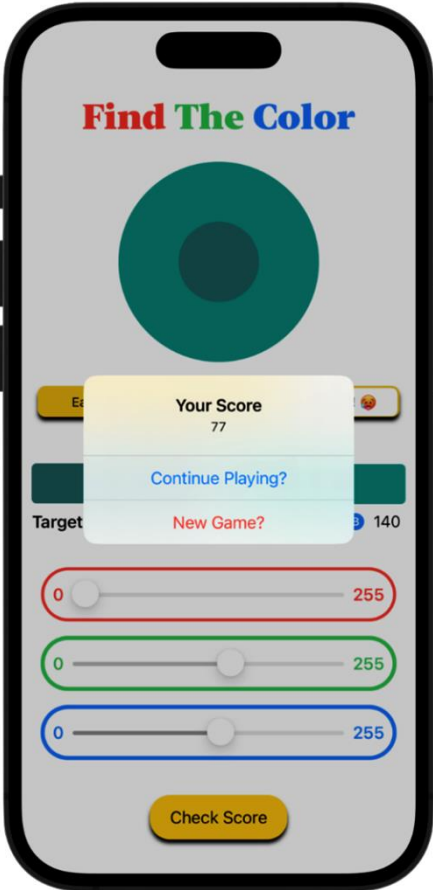
Chapter 14: Creating a Color Game

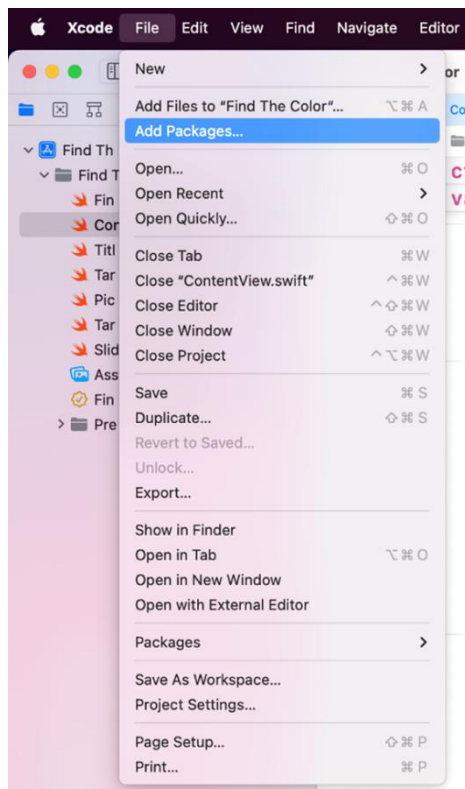
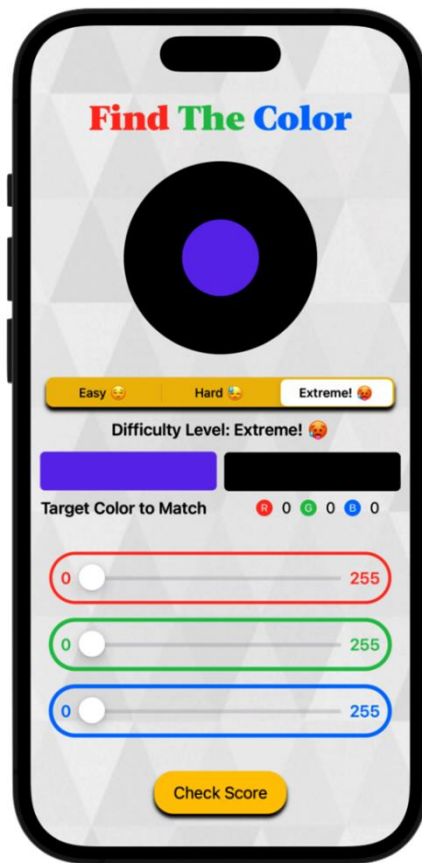


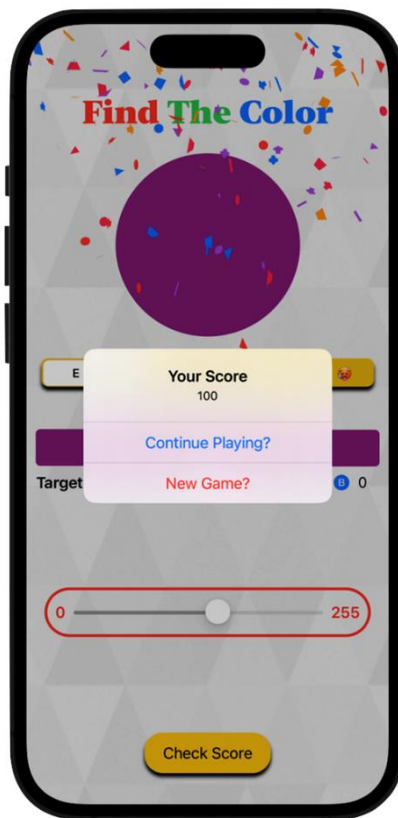
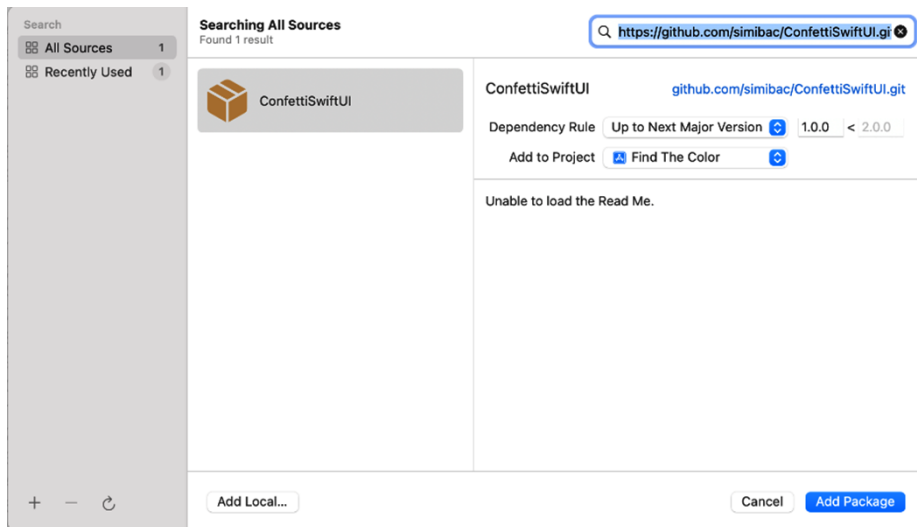




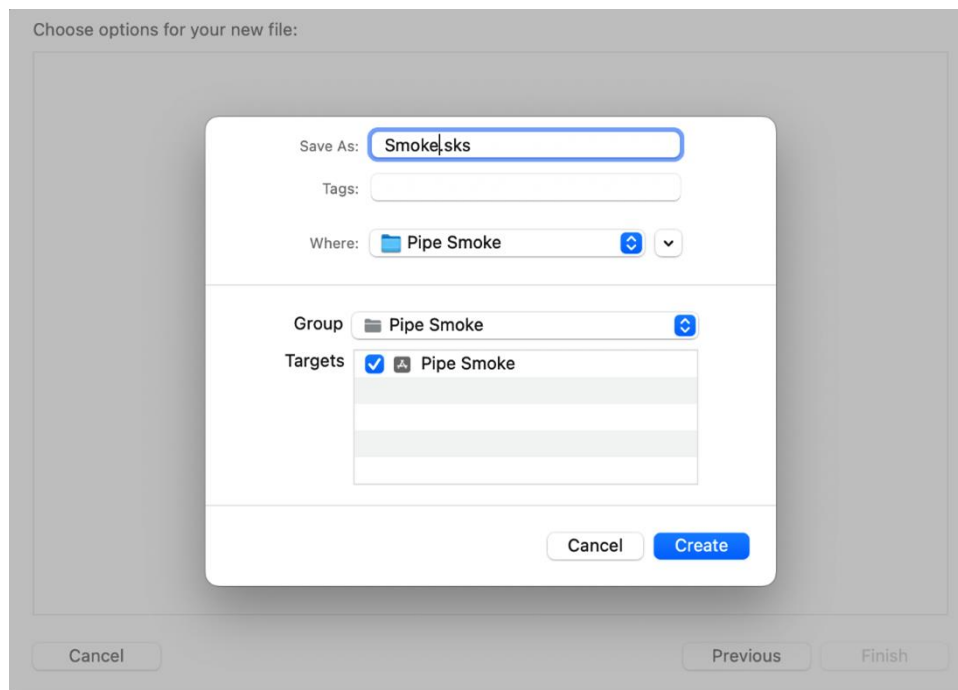
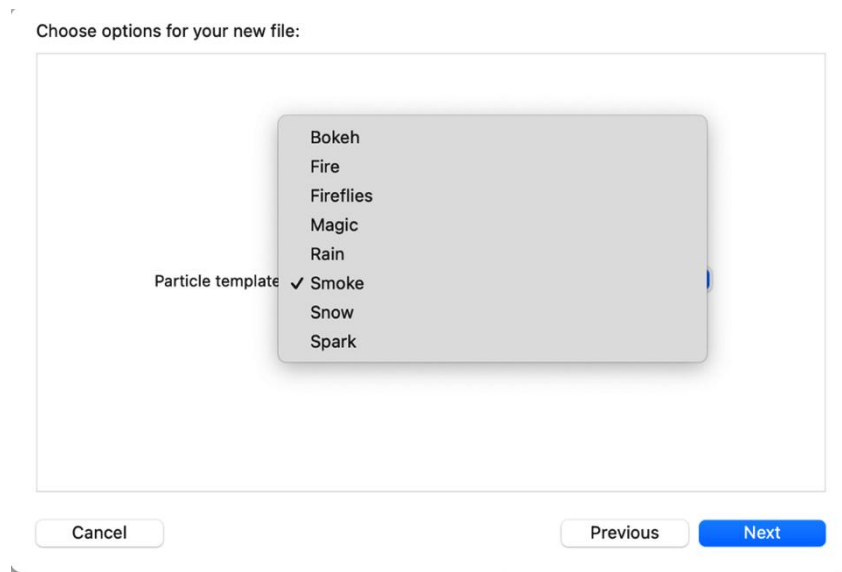








Chapter 15: Integrating SpriteKit into Your SwiftUI Projects



Add Editor on RightEmitter

Name

name

Background

Custom

Particles

Texture

spark

Emitter

- 40 +

- 0 +

Birthrate

Maximum

Lifetime

- 10 +

- 0 +

Start

Range

Position Range

- 40 +

- 5 +

X

Y

Z

- 0 +

Position

Angle

- 89.381° +

- 20.054° +

Start

Range

Speed

- 40 +

- 40 +

Start

Range

Acceleration

- 0 +

- 10 +

X

Y

Alpha

- 0.4 +

Start

- 0.3 +

- -0.15 +

Range

Speed

Scale

- 0.5 +

Start

- 0.3 +

- 0.5 +

Range

Speed

Rotation

- 0° +

Start

- 359.818° +

- 171.887° +

Range

Speed

Color Blend

- 1 +

Factor

- 0 +

- 0 +

Range

Speed

Color Ramp

Blend Mode

Alpha

Field Mask

0

Custom Shader

Custom Shader Uniforms

Name	Type	Value
+ —		

SpriteKit Particle Emitter

Name

name

Background

Under Page Backgro...

Particles

Texture

spark

Emitter

-

10

+

-

0

+

Birthrate

Maximum

Lifetime

-

4

+

-

0

+

Start

Range

Position Range

-

4

+

-

5

+

X

Y

Z

-

0

+

Position

Angle

-

89.381°

+

-

20.054°

+

Start

Range

Speed

-

16

+

-

28

+

Start

Range

Acceleration

-

0

+

-

10

+

X

Y

Alpha

-

0.5

+

Start

-

0.3

+

-

-0.15

+

Range

Speed

Scale

-

0.2

+

Start

-

1.3

+

-

0.3

+

Range

Speed

Rotation

-

0°

+

Start

-

359.818°

+

-

171.887°

+

Range

Speed

Color Blend

-

18

+

Factor

-

3

+

-

-2

+

Range

Speed

Color Ramp

Blend Mode

Subtract

Field Mask

0

Custom Shader

Custom Shader Uniforms

Name	Type	Value
<div>+</div>	<div>—</div>	



SpriteKit Particle Emitter

Name

name

Background

Custom

Particles

Texture

spark

Emitter

- 38 +

- 0 +

Birthrate

Maximum

Lifetime

- 8 +

- 0 +

Start

Range

Position Range

- 40 +

- 5 +

X

Y

- 0 +

Position

Angle

- 89.381° +

- 20.054° +

Start

Range

Speed

- 40 +

- 40 +

Start

Range

Acceleration

- 0 +

- 10 +

X

Y

Alpha

- 0.4 +

Start

- 0.3 +

- -0.15 +

Range

Speed

Scale

- 0.2 +

Start

- 0.3 +

- 0.5 +

Range

Speed

Rotation

- 0° +

Start

- 359.818° +

- 171.887° +

Range

Speed

Color Blend

- 2 +

Factor

- 0 +

- 4 +

Range

Speed

Color Ramp

Blend Mode

Screen

Field Mask

0

Custom Shader

Custom Shader Uniforms

Name	Type	Value
<div>+ -</div>		



SpriteKit Particle Emitter

Name

name

Background

Custom

Particles

Texture

spark

Emitter

- 2000 +

- 0 +

Birthrate

Maximum

Lifetime

- 10 +

- 0 +

Start

Range

Position Range

- 363.44 +

- 5 +

X

Y

Z

- 0 +

Position

Angle

- 254.863 +

- 20° +

Start

Range

Speed

- 260 +

- 500 +

Start

Range

Acceleration

- 0 +

- -10 +

X

Y

Alpha

- 1 +

Start

- 0.2 +

- 0 +

Range

Speed

Scale

- 0.1 +

Start

- 0.2 +

- 0 +

Range

Speed

Rotation

- 0° +

Start

- 0° +

- 0° +

Range

Speed

Color Blend

- 1 +

Factor

- 0 +

- 0 +

Range

Speed

Color Ramp

Blend Mode

Alpha

Field Mask

0

Custom Shader

Custom Shader Uniforms

Name	Type	Value
<div><div>+</div><div>-</div></div>		

SpriteKit Particle Emitter

Name

name

Background

Custom

Particles

Texture

spark

Emitter

- 500 +

- 0 +

Birthrate

Maximum

Lifetime

- 10 +

- 0 +

Start

Range

Position Range

- 500 +

- 10 +

X

Y

Z

- 0 +

Position

Angle

- 300° +

- 25° +

Start

Range

Speed

- 300 +

- 400 +

Start

Range

Acceleration

- 45 +

- 20 +

X

Y

Alpha

- 1 +

Start

- 0.2 +

- 0 +

Range

Speed

Scale

- 0.2 +

Start

- 0.2 +

- 0 +

Range

Speed

Rotation

- 0° +

Start

- 0° +

- 0° +

Range

Speed

Color Blend

- 1 +

Factor

- 0 +

- 0 +

Range

Speed

Color Ramp

Blend Mode

Alpha

Field Mask

0

Custom Shader

Custom Shader Uniforms

Name	Type	Value
<div>+ -</div>		



SpriteKit Particle Emitter

Name

name

Background

Custom

Particles

Texture

spark

Emitter

-

150

+

-

0

+

Birthrate

Maximum

Lifetime

-

10

+

-

0

+

Start

Range

Position Range

-

242.3

+

-

5

+

X

Y

Z

-

0

+

Position

Angle

-

270.393

+

-

1.719°

+

Start

Range

Speed

-

340

+

-

150

+

Start

Range

Acceleration

-

0

+

-

-150

+

X

Y

Alpha

-

1

+

Start

-

0.2

+

-

0

+

Range

Speed

Scale

-

0.08

+

Start

-

0.05

+

-

0

+

Range

Speed

Rotation

-

0°

+

Start

-

0°

+

-

0°

+

Range

Speed

Color Blend

-

1

+

Factor

-

0

+

-

0

+

Range

Speed

Color Ramp

Blend Mode

Alpha

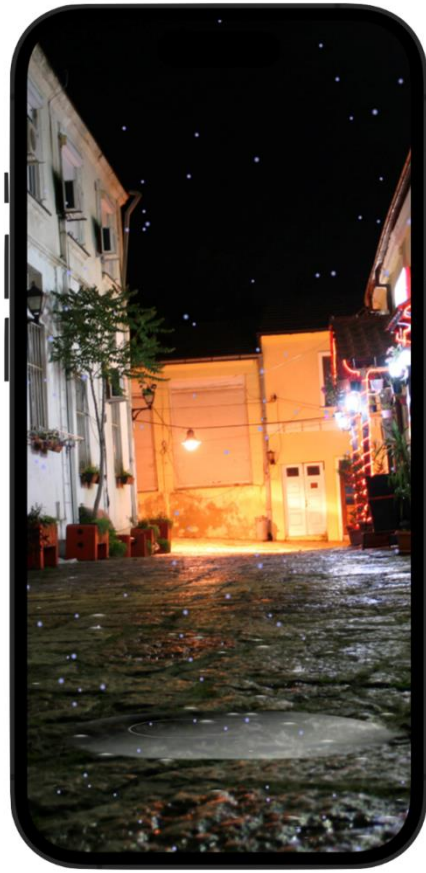
Field Mask

0

Custom Shader

Custom Shader Uniforms

Name	Type	Value
<div>+ —</div>		



Particles

Texture

star

Emitter

-

20

+

-

0

+

Birthrate

Maximum

Lifetime

-

0.5

+

-

0

+

Start

Range

Position Range

-

25

+

-

600

+

X

Y

Z

-

0

+

Position

Angle

-

89.381°

+

-

360.39°

+

Start

Range

Speed

-

0

+

-

20

+

Start

Range

Acceleration

-

0

+

-

-0

+

X

Y

Alpha

-

1

+

Start

-

0.2

+

-

-0.35

+

Range

Speed

Scale

-

0.01

+

Start

-

0

+

-

0.45

+

Range

Speed

Rotation

-

0°

+

Start

-

0°

+

-

0°

+

Range

Speed

Color Blend

-

1

+

Factor

-

0

+

-

0

+

Range

Speed

Color Ramp

Blend Mode

Alpha

Field Mask

0

Custom Shader

Custom Shader Uniforms

Name	Type	Value
<div><div>+</div><div>-</div></div>		

