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HUAWEI DEVELOPER CONFERENCE 2021

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轻松玩转新一代UI编程框架开发实战

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UI界面开发面临的问题

2

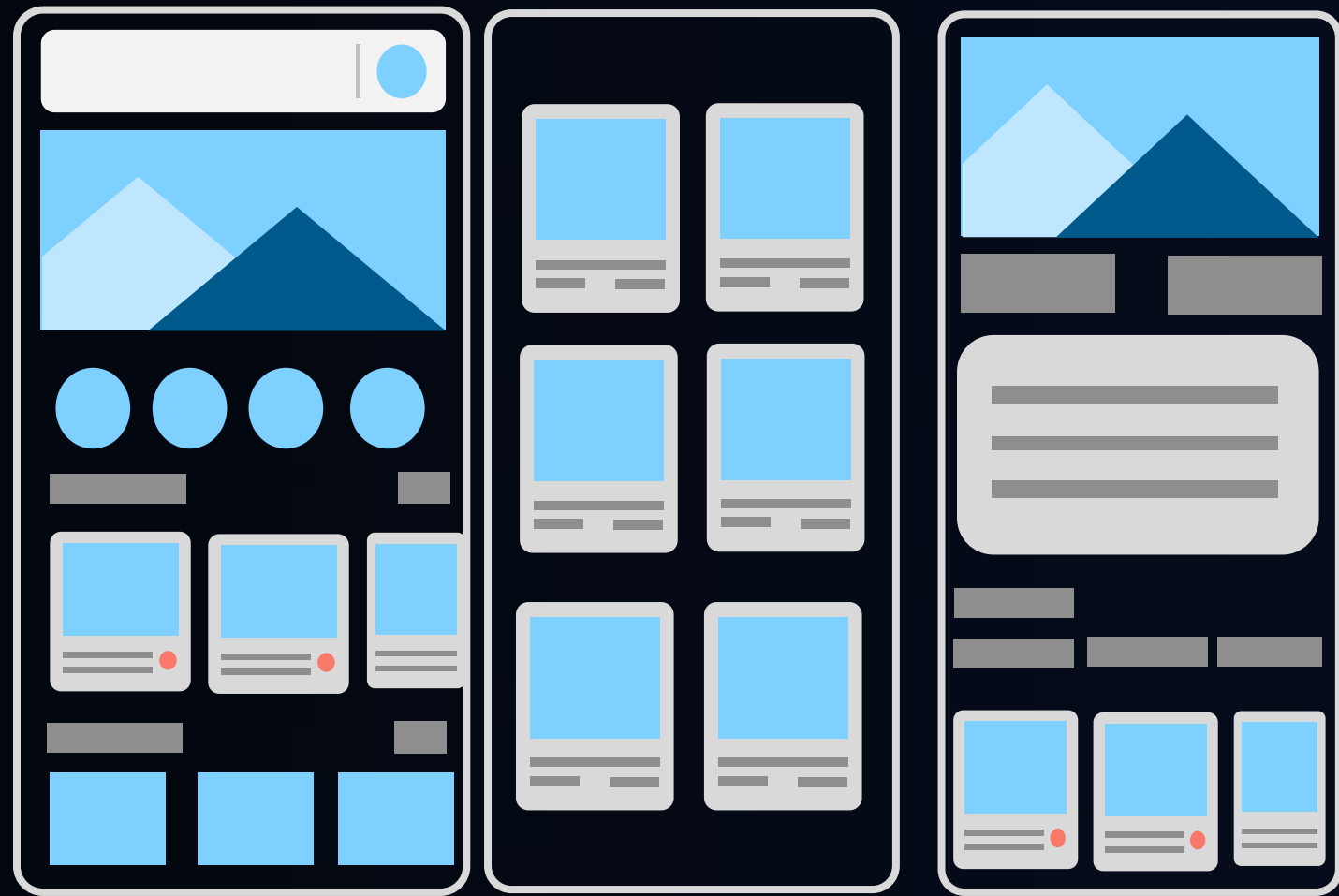
UI界面开发解决方案

3

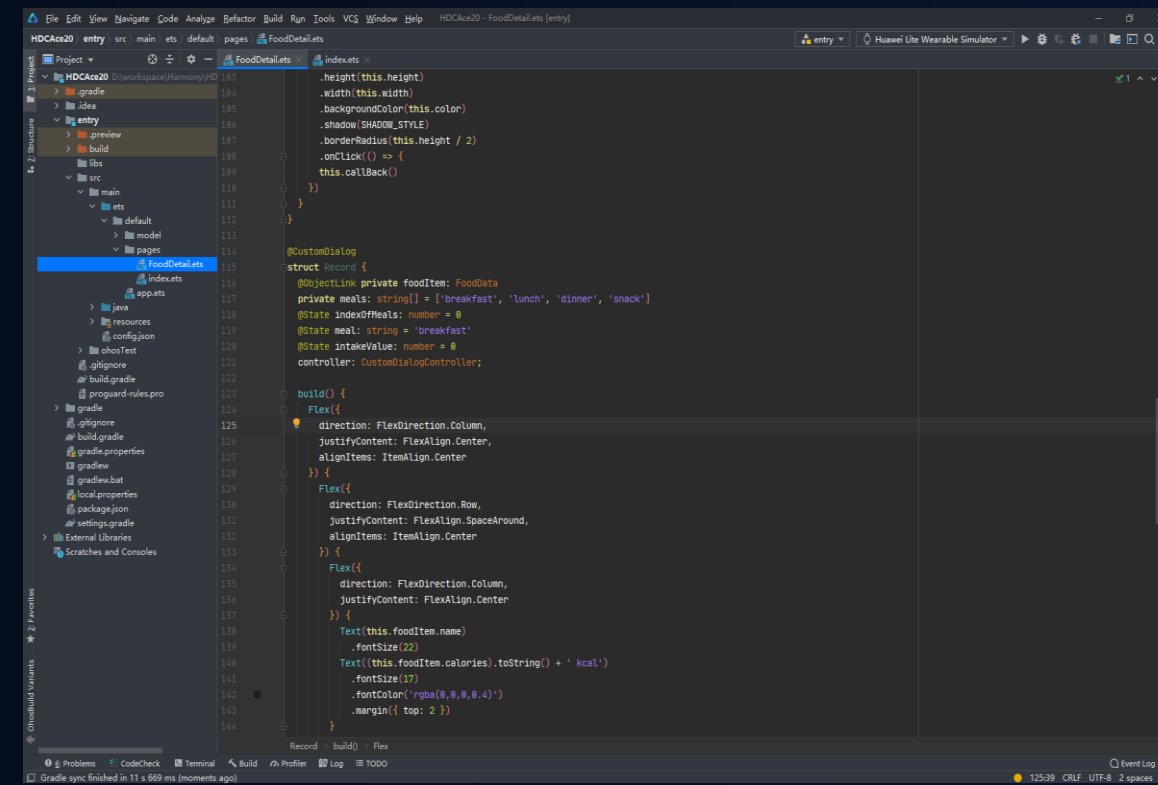
demo演示

UI界面开发面临的问题

界面重复开发



界面调试难



尺寸交互多样化



如何解决界面重复开发-组件重用与组合



如何解决界面重复开发-内置组件

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基础组件

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容器组件

1

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绘制组件

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动画组件

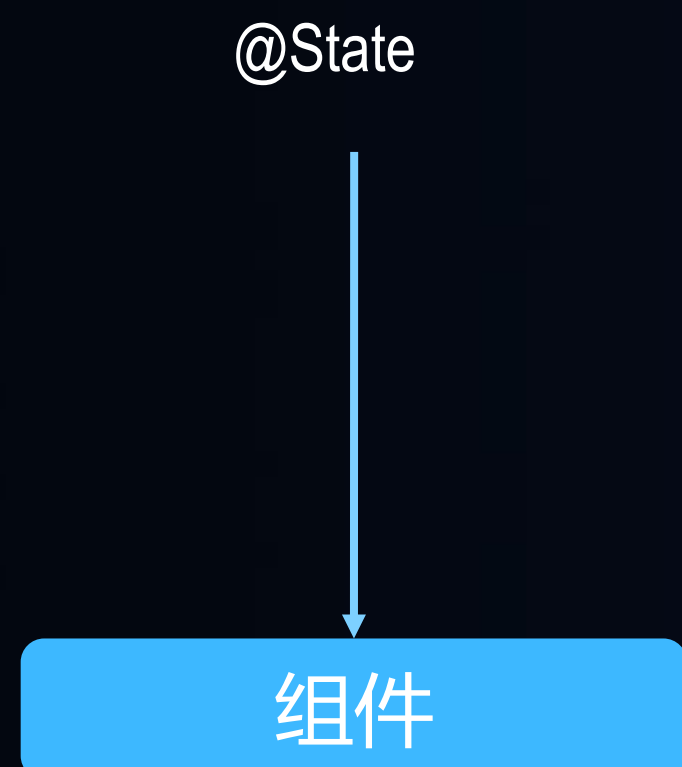


如何解决界面重复开发-组件状态同步

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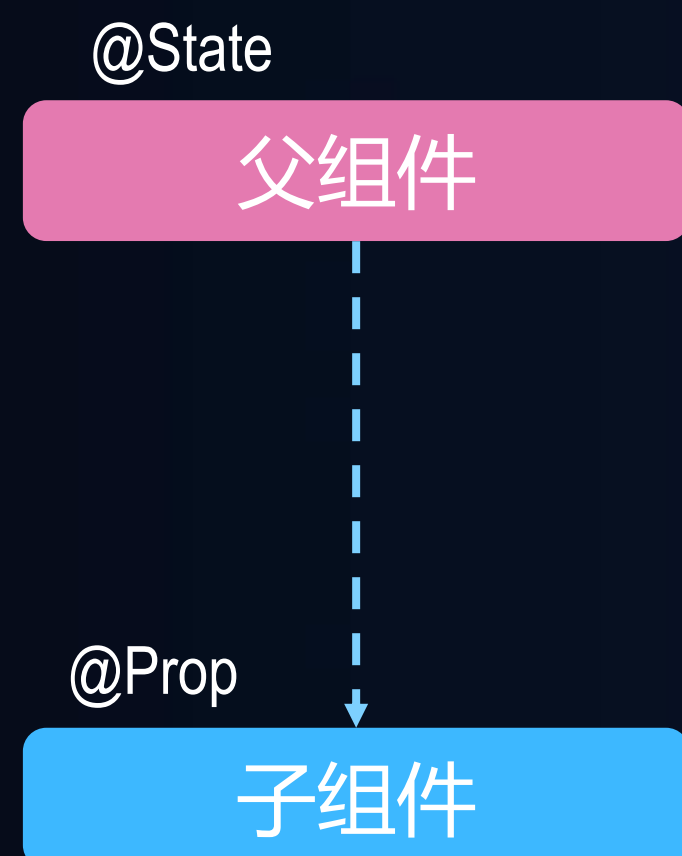
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数据绑定



UI更新

单向同步



双向同步



跨层级同步



如何解决界面重复开发-组件预览

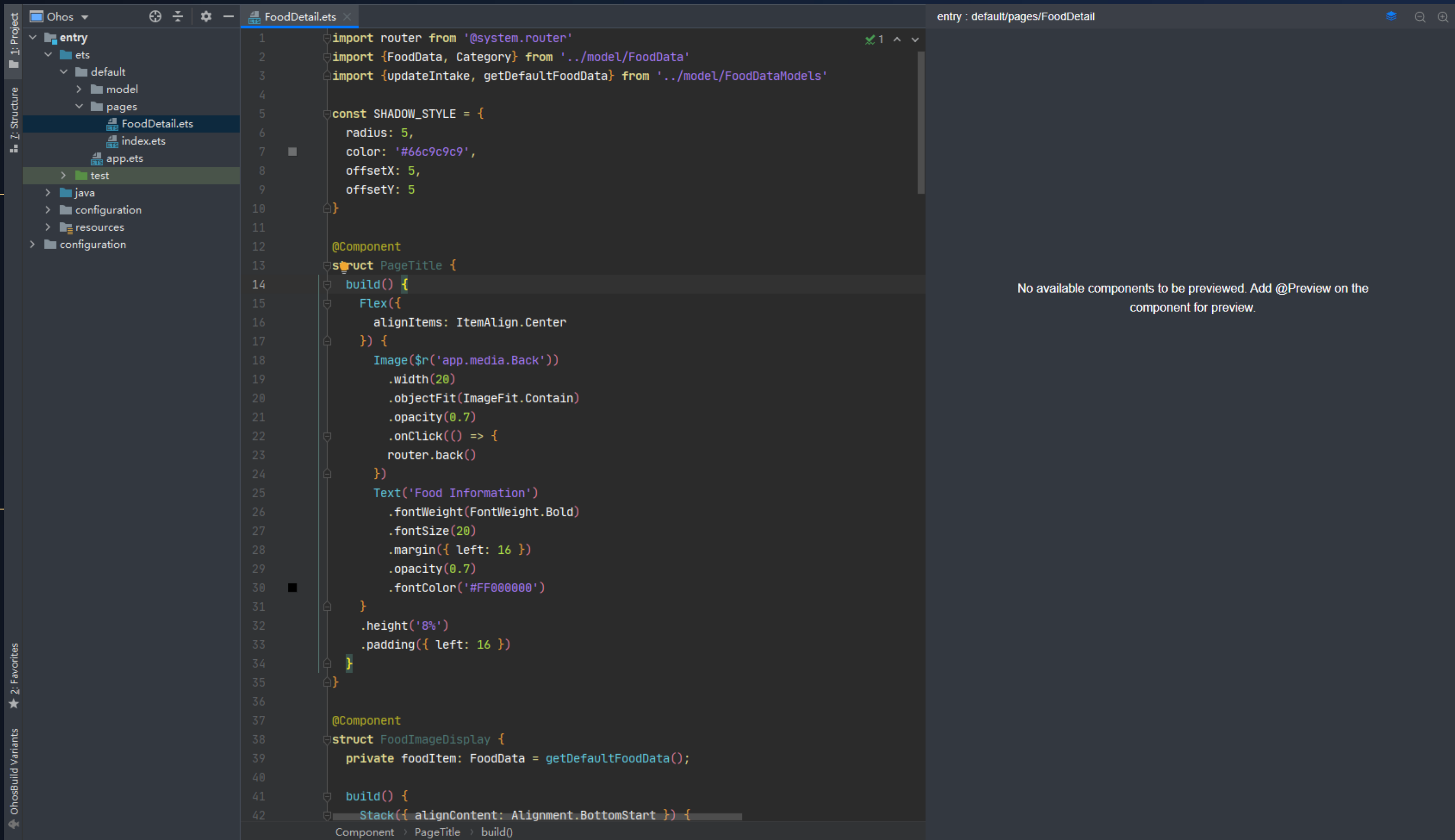
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组件预览

组合预览

页面预览



如何解决界面调试难-双向预览

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双向定位关联界面和代码，
更快发现界面问题

The screenshot displays the HDC.Together development environment. On the left, the code editor shows the implementation of a `PageTitle` component in `FoodDetail.ets`. The code defines a shadow style and a component structure that includes a back button, a title, and a `Record` button. On the right, the 'Previewer' window shows a live preview of the application on a mobile device. The previewed page, titled 'Food Detail', features a tomato image, a title, and a table of nutritional information. The 'Attributes' panel on the far right is currently empty, showing 'Select a component.'

```
5  const SHADOW_STYLE = {
6    radius: 5,
7    color: '#66c9c9',
8    offsetX: 5,
9    offsetY: 5
10 }
11
12 @Component
13 struct PageTitle {
14
15   build() {
16     Flex({
17       alignItems: ItemAlign.Center
18     }) {
19       Image($r('app.media.Back'))
20         .width(20)
21         .objectFit(ImageFit.Contain)
22         .opacity(0.7)
23         .onClick(() => {
24           router.back()
25         })
26       Text('Food Detail')
27         .fontWeight(FontWeight.Bold)
28         .fontSize('20vp')
29         .margin({ left: 16 })
30         .opacity(0.7)
31     }
32     .height('8%')
33     .padding({
34       left: 16
35     })
36   }
37 }
```

Nutrition		Calories
Calories	Calories	17kcal
Protein	Protein	0.9g
Fat	Fat	0.2g
Carbohydrates	Carbohydrates	3.9g
VitaminC	VitaminC	17.8mg

如何解决界面调试难-双向预览

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双向定位关联界面和代码，
更快发现界面问题

```
5  const SHADOW_STYLE = {
6    radius: 5,
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28         .fontSize('20vp')
29         .margin({ left: 16 })
30         .opacity(0.7)
31     }
32     .height('8%')
33     .padding({
34       left: 16
35     })
36   }
37 }
```

Preview: Inspector
entry : default/pages/FoodDetail

Phone (medium)

Food Detail

Tomato

Calories	Calories	17kcal
Nutrition	Protein	0.9g
	Fat	0.2g
	Carbohydrates	3.9g
	VitaminC	17.8mg

Record

Component Tree

- Flex
- Stack
- Flex
- Flex
- Button

Attributes

Select a component.

如何解决界面调试难-极速预览

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修改代码无需保存即可刷新预览界面，快速调整界面样式

The image shows a development environment with two main panels. The left panel displays the source code for a file named 'FoodDetail.ets'. The code includes a struct 'PageTitle' and a 'build()' function that uses 'Flex' layout, 'Image', and 'Text' components. The right panel is a 'Previewer' window showing a mobile application interface for 'Food Detail'. The interface features a back arrow, a photo of tomatoes, the title 'Tomato', and a table of nutritional information. At the bottom, there is a green 'Record' button.

```
6      radius: 5,
7      color: '#66c9c9c9',
8      offsetX: 5,
9      offsetY: 5
10
11
12      @Component
13      struct PageTitle {
14
15      build() {
16          Flex({
17              alignItems: ItemAlign.Center
18          }) {
19              Image($r('app.media.Back'))
20                  .width(20)
21                  .objectFit(ImageFit.Contain)
22                  .opacity(0.7)
23                  .onClick(() => {
24                      router.back()
25                  })
26              Text('Food Detail')
27                  .fontWeight(FontWeight.Bold)
28                  .fontSize('20vp')
29                  .margin({ left: 16 })
30                  .opacity(0.7)
31          }
32          .height('8%')
33          .padding({
34              left: 16
35          })
36      }
37  }
```

entry : default/pages/FoodDetail

Phone (medium)

← Food Detail

Tomato

Calories	Calories	17kcal
Nutrition	Protein	0.9g
	Fat	0.2g
	Carbohydrates	3.9g
	VitaminC	17.8mg

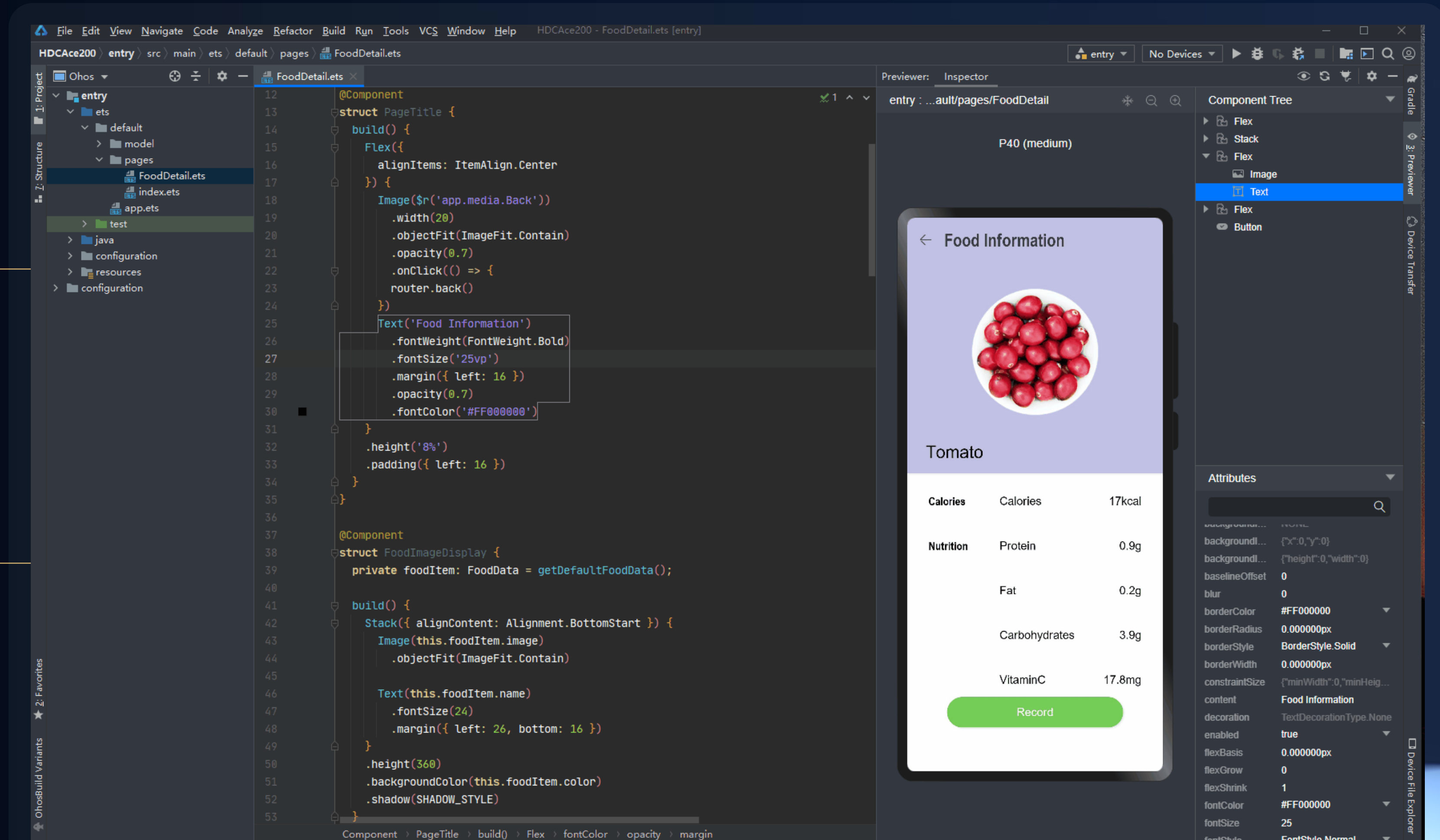
Record

如何解决界面调试难-极速预览

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代码和界面双向可修改，
快速调整界面样式

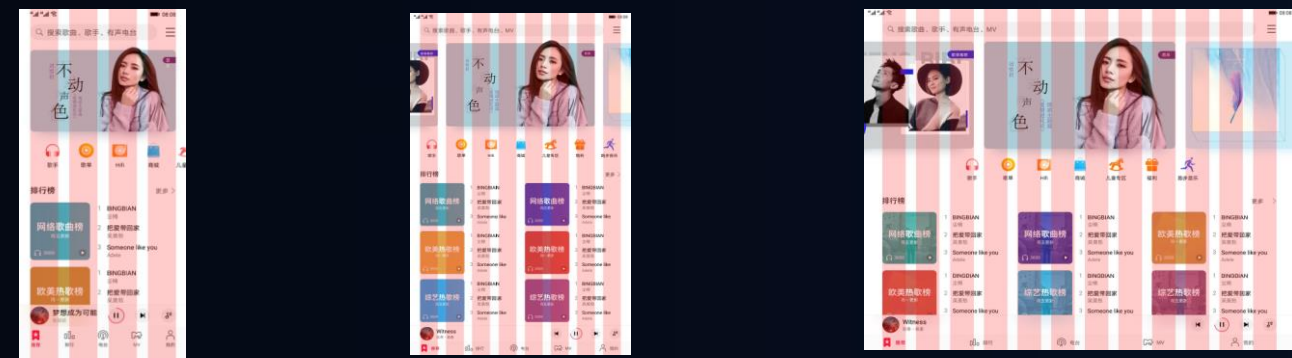


如何解决尺寸交互多样化-一次开发多端部署 < HDC.Together >

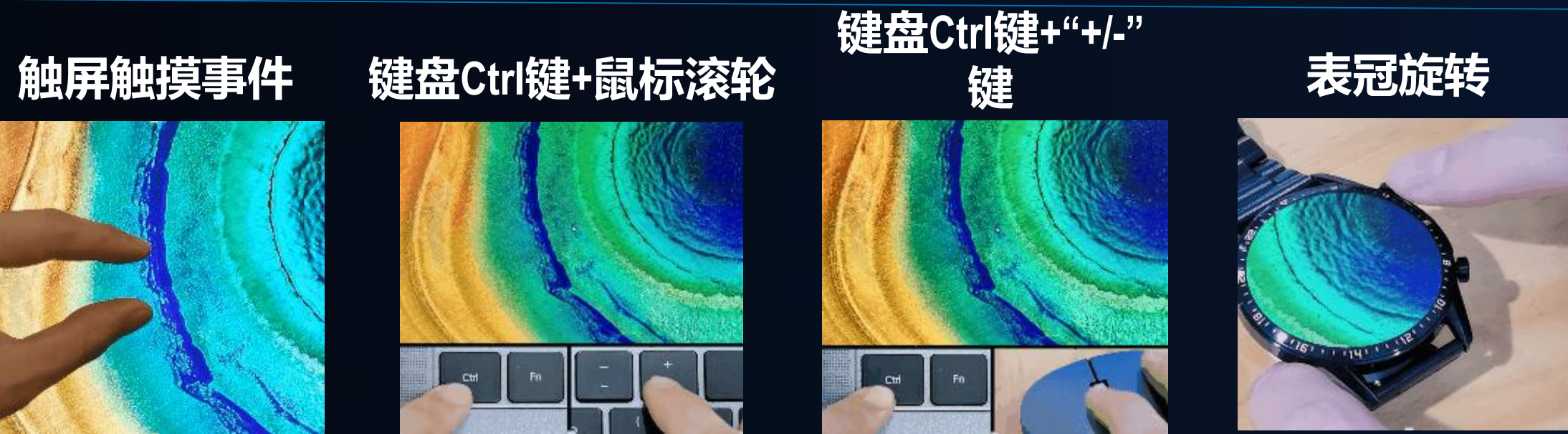
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多端预览

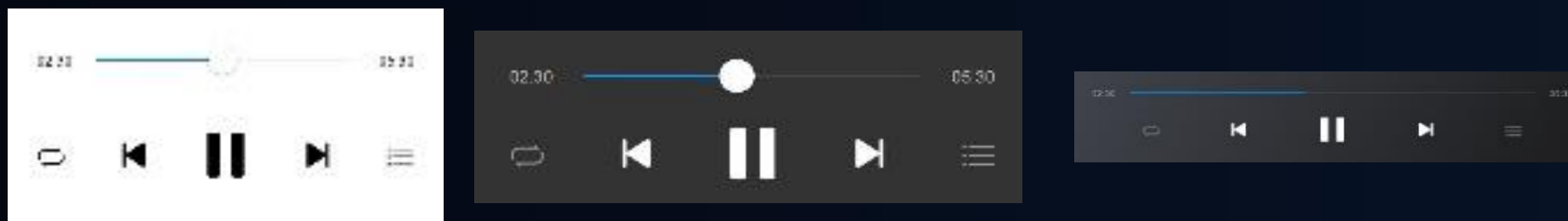
动态布局



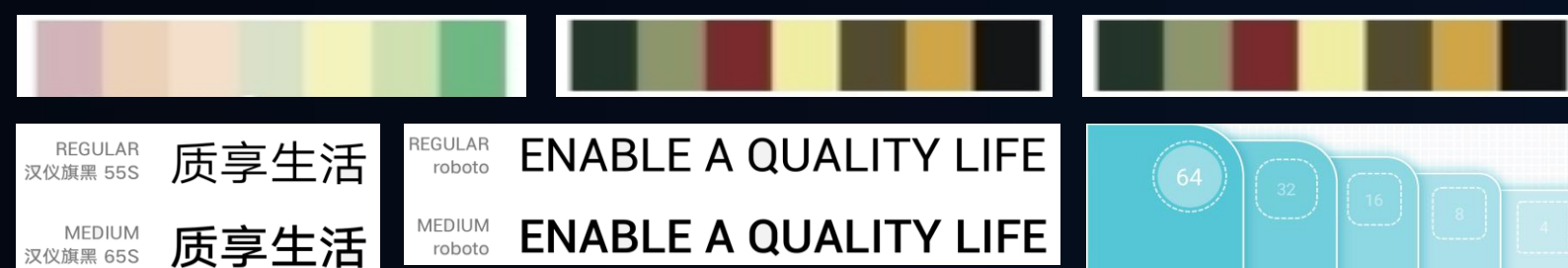
统一交互



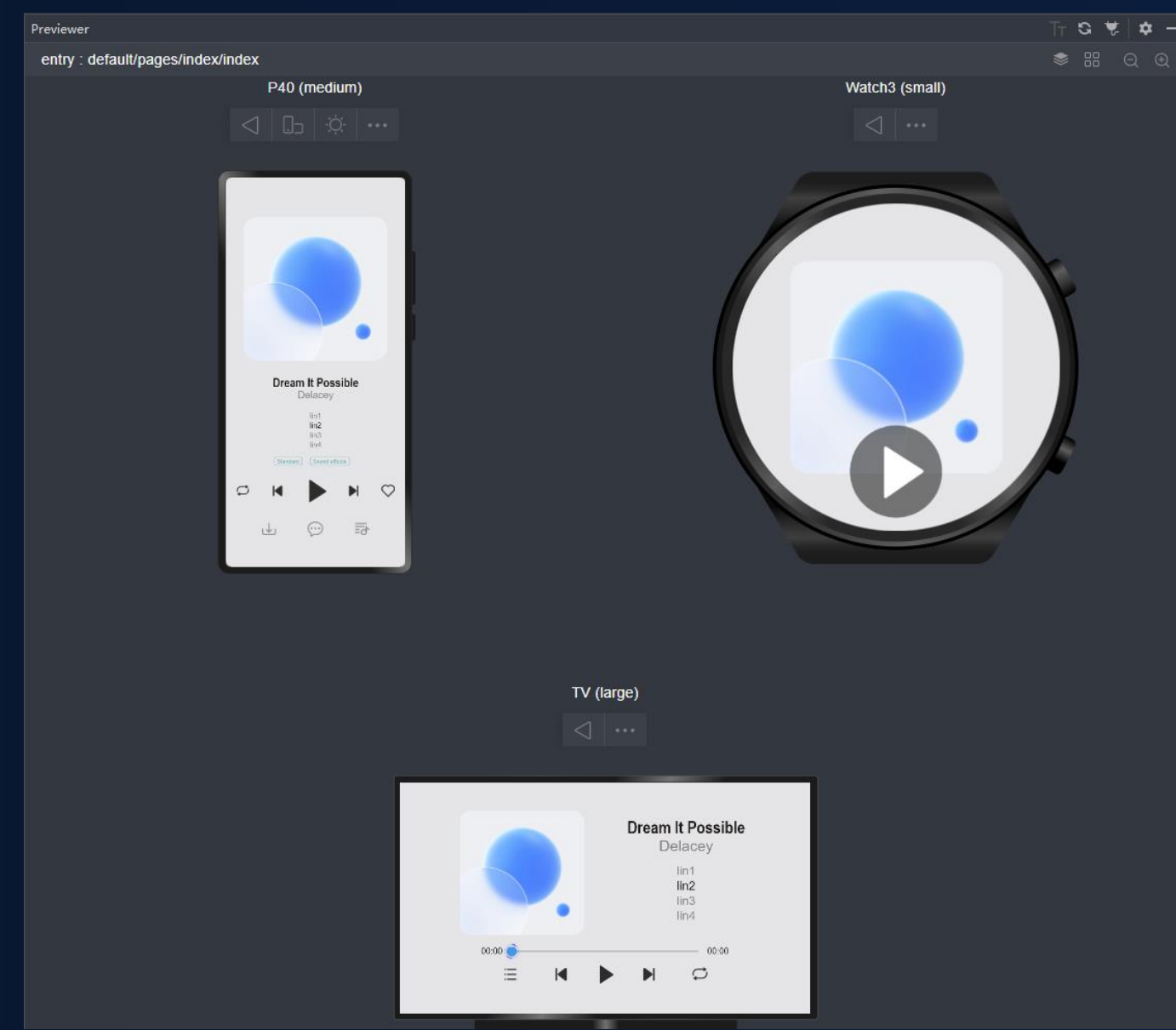
多态控件



视觉参数



为多设备主动设计的UI布局



UI界面开发解决方案

界面重复开发



组件重用与组合、状态同步

界面调试难



双向预览、极速预览

尺寸交互多样化



一次开发多端部署

下一步计划

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轻量级调试

现状

通过双向预览，快速定位界面问题



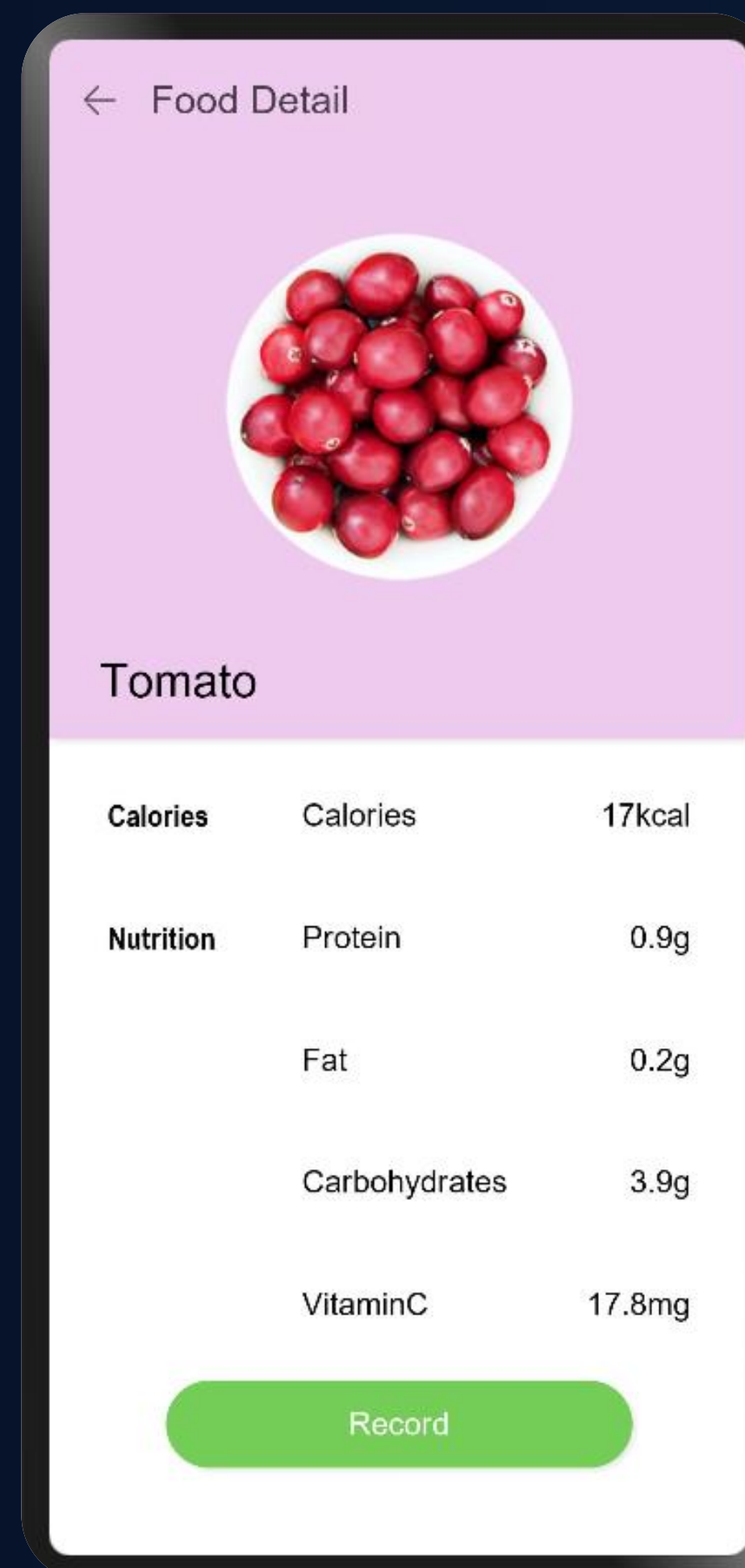
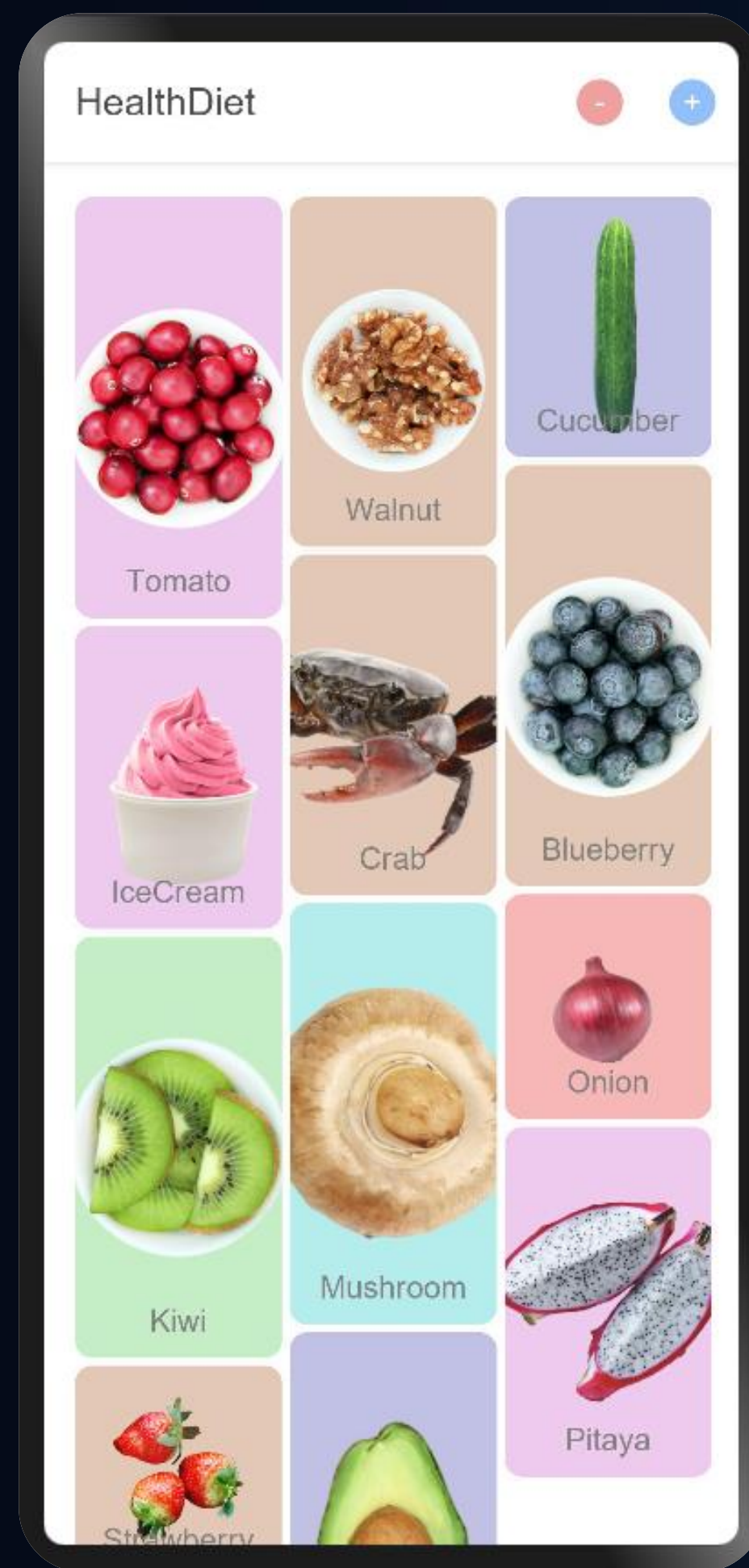
未来

补充更多API能力，无需真机或重量级模拟器完成业务逻辑的调试运行

Demo演示

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