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HUAWEI DEVELOPER CONFERENCE 2021

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华为开发者大会 2021

15分钟玩转HarmonyOS服务卡片

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服务卡片入门

服务直达

服务卡片（简称卡片）是FA的一种界面展示形式，将FA的重要信息或操作前置到卡片，以达到服务直达，减少体验层级目的。



高颜值



3步15分钟玩转服务卡片开发

想追全运会金牌榜？



试试服务卡片



3步实现服务卡片

1

选择合适的模板并修改布局

2

绑定卡片数据

3

响应卡片交互事件

入口：Module中右键菜单->new->service widget

Choose a template for your service widget

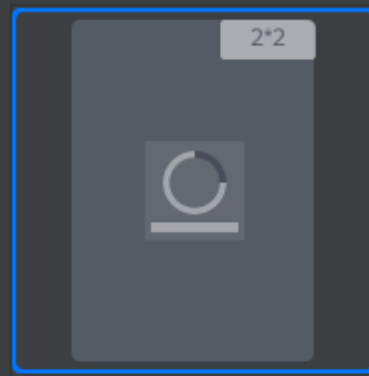
Type



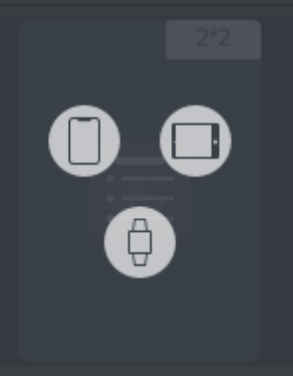
Service Widget

Template

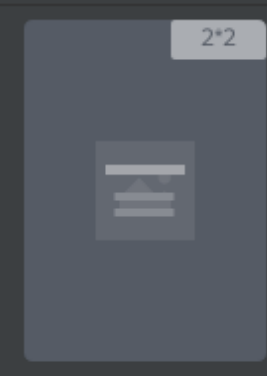
Basic Advanced



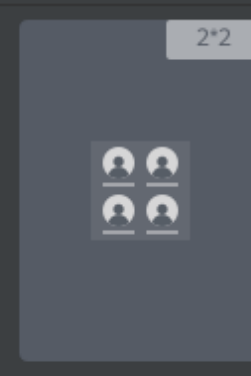
Circular Data



Immersive Data



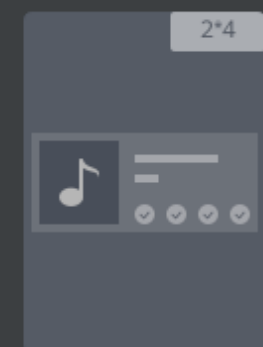
Immersive Information



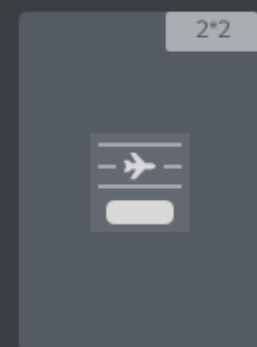
Multiple Contacts



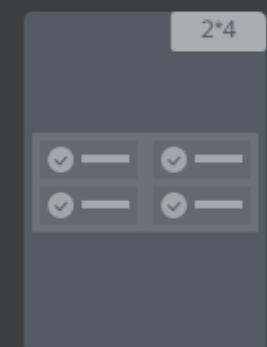
Multiple Functions



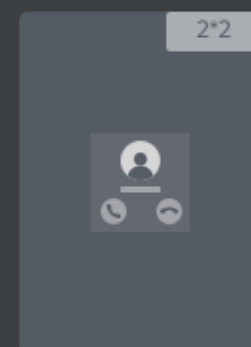
Music Player



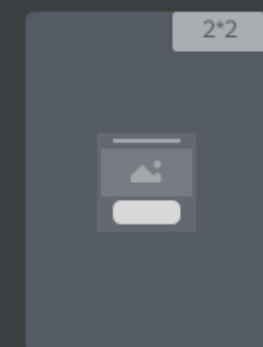
Schedule



Shortcuts



Social Call



Standard Image

Circular Data

This template is used to display user-defined content in the format of a ring chart and text, which highlights the proportion of key data.

Help

Cancel

Previous

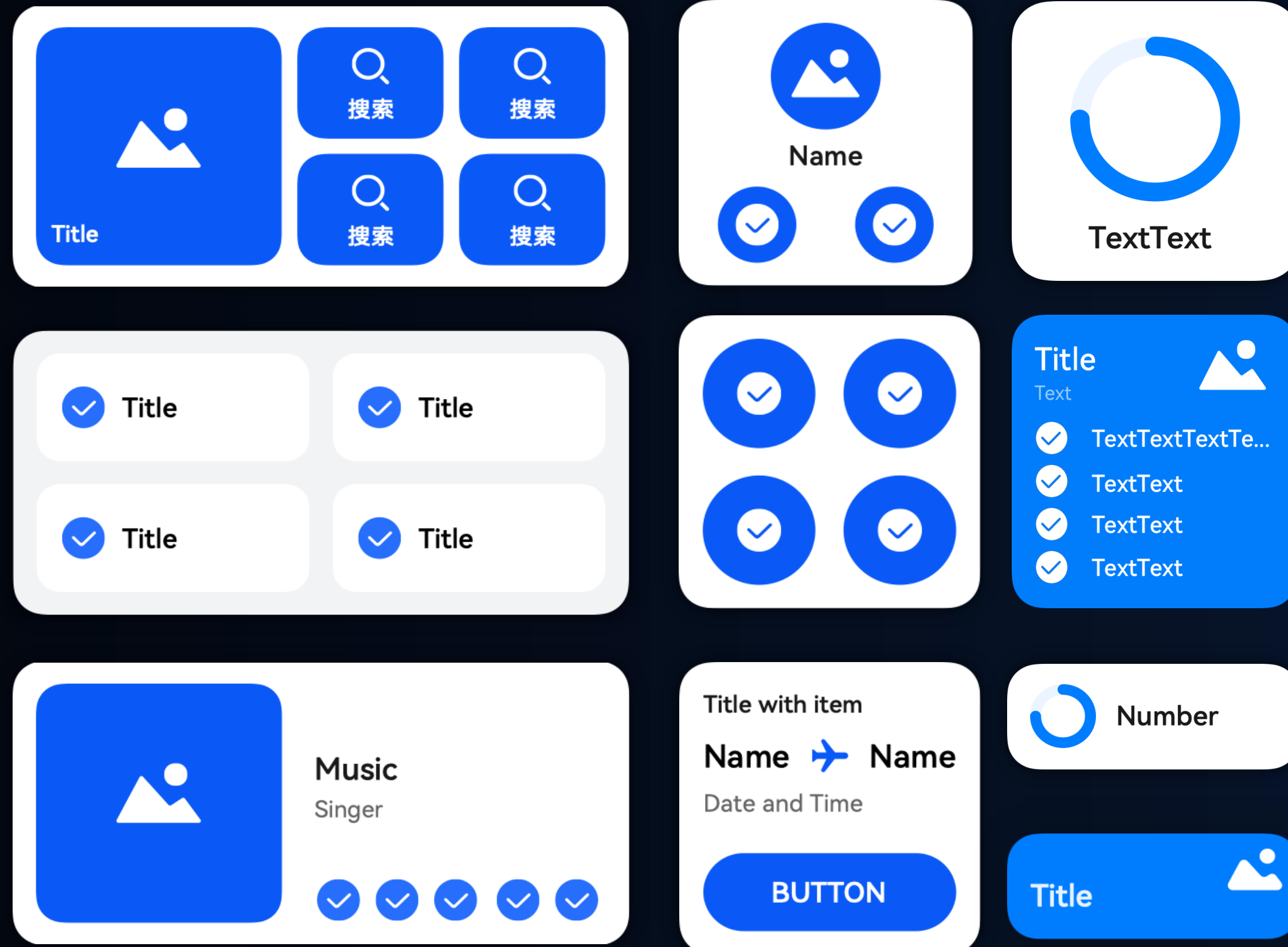
Next

为了方便开发者快速构建一个卡片应用，IDE提供了多种类型的模板，开发者可以根据需要展示的信息类型灵活选择模板，快速构建服务卡片

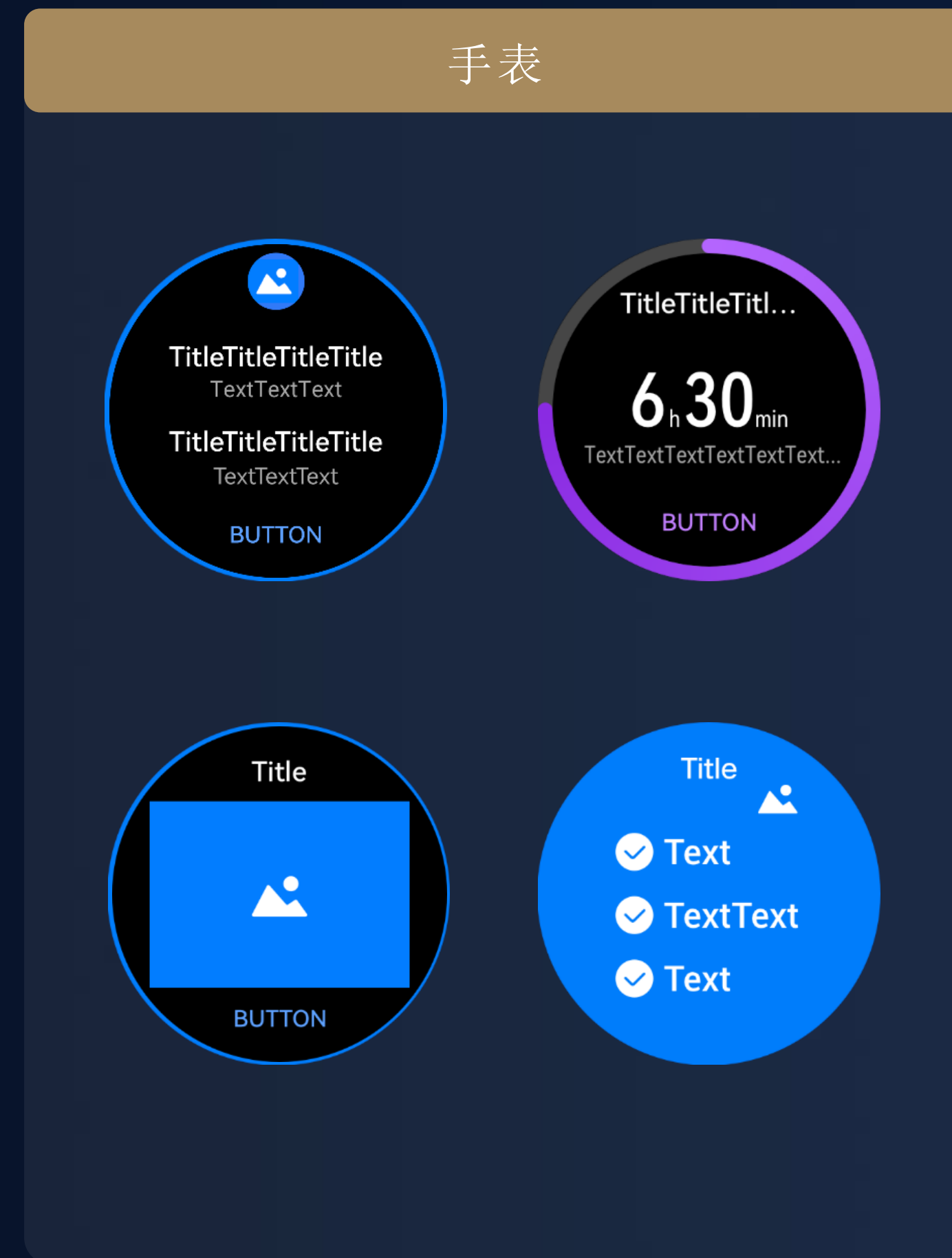
- 节省开发工作量
- 统一的视觉设计和交互形式
- 卡片开发标准模式参考

部分卡片模板效果展示

手机&平板



手表



以上模板如果无法满足应用场景的卡片UI设计，可以基于任意一个接近样式的卡片布局修改/重写

基于模板的系统服务卡片

Immersive Data
沉浸式数据模板



Multiple Contacts
联系人模板



Multiple Functions
多功能展示模板

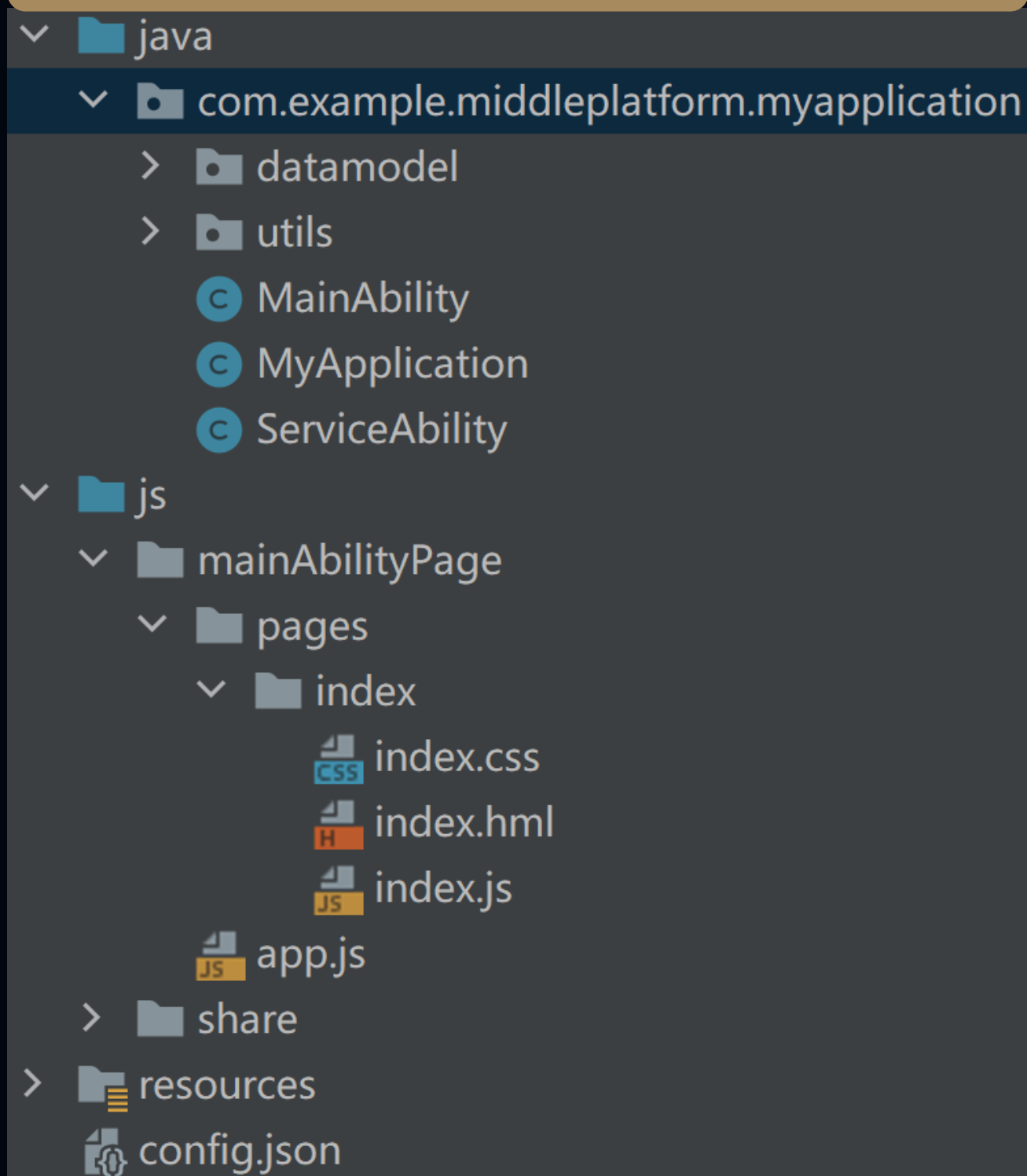


第1步：选择模板，修改布局

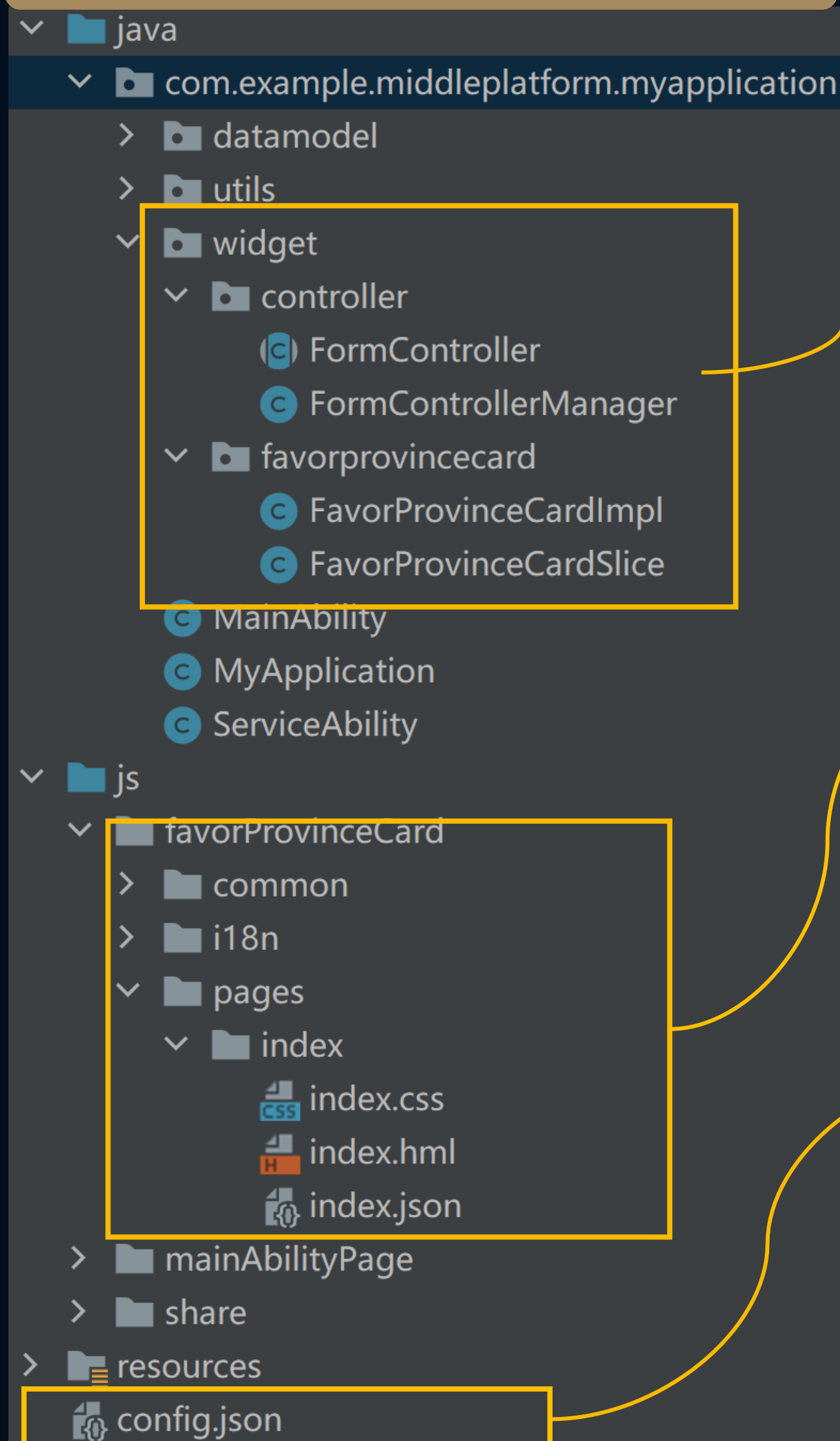
The image displays several UI design templates for a medal ranking application. The templates are arranged in a grid-like fashion, showing different ways to present information like titles, medals, and rankings.

- Top Left (Blue Card):** A blue card with a title, a placeholder image, and a list of four items, each with a checkmark icon.
- Top Middle (Orange Card):** An orange card showing a province name (广东), a current ranking (当前排名: 2), and a list of medals: 金牌 54, 银牌 32, and 铜牌 56.
- Top Right (Blue Card):** A blue card with a title and a placeholder image.
- Middle Right (Light Blue Card):** A light blue card showing a province name (山东), a score (58), and a gold medal icon.
- Bottom Left (Blue Card):** A blue card with a title, a placeholder image, and two items, each with a placeholder image and a title.
- Bottom Middle (Light Blue Card):** A light blue card showing a medal ranking table with columns for province names (广东, 山东, 浙江) and their respective medal counts (金牌, 银牌, 铜牌). It also includes a refresh icon and an update time (更新时间 09/28 12:00).
- Bottom Right (White Card):** A white card with an app name, a title with an item, and a title with an item, each followed by a list of text.
- Bottom Far Right (Light Blue Card):** A light blue card showing a list of items with their scores and medal icons: 1 山东 (58), 2 广东 (54), and 3 浙江 (44).

添加卡片模板前



添加卡片模板后



卡片实现

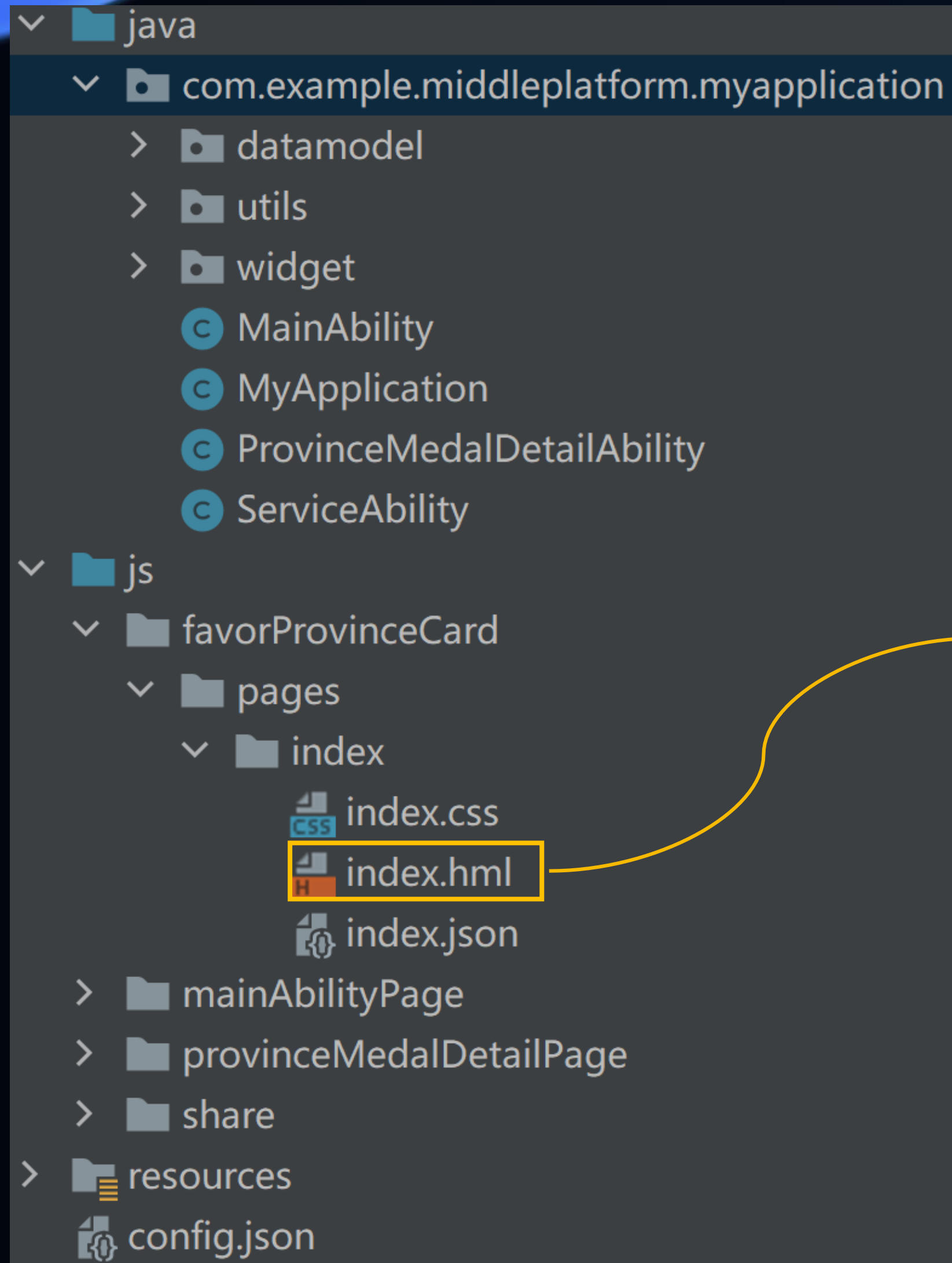
FormControllerManager	卡片管理器
FormController	卡片控制器基类
WidgetImpl	具体的卡片示例

卡片布局

index.css	卡片样式文件
index.html	卡片布局文件
index.json	卡片数据和行为属性配置文件

卡片配置

jsComponentName	卡片对应的Js模块
supportDimensions	卡片支持的尺寸
updateEnabled	卡片是否支持定时刷新
isDefault	是否默认卡片
...	



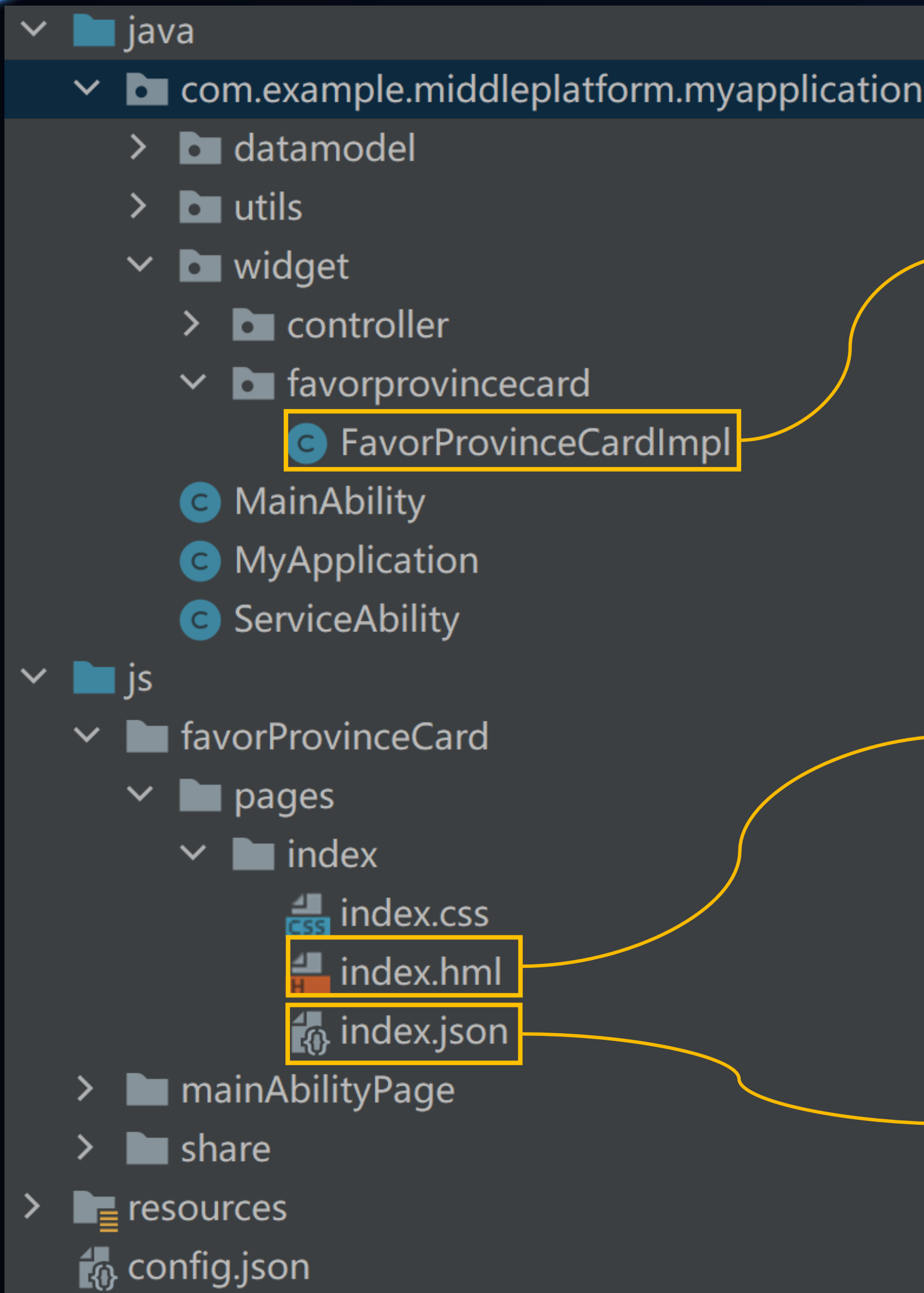
```
<div class="container">
  <div class="title_wrapper">
    <text class="title_big">
      广东
    </text>
    <text class="title_small">
      当前排名
    </text>
  </div>
  <div class="list_wrapper">
    <div class="item_first">

      <div class="item">
        <image class="item_image" src="/common/ic_default.png"></image>
        <text class="item_text" onclick="routerEvent">金牌</text>
      </div>
      <div class="item">
        <image class="item_image" src="/common/ic_default.png"></image>
        <text class="item_text" onclick="routerEvent">银牌</text>
      </div>
      <div class="item">
        <image class="item_image" src="/common/ic_default.png"></image>
        <text class="item_text" onclick="routerEvent">铜牌</text>
      </div>
    </div>
  </div>
</div>
```



第2步：绑定卡片数据





```
public ProviderFormInfo bindFormData(long formId) {
    HiLog.info(TAG, "bind form data for a new service widget.");
    ProviderFormInfo providerFormInfo = new ProviderFormInfo();

    ZSONObject medalObject = new ZSONObject();
    medalObject.put("province", "广东");
    medalObject.put("rank", 2);
    medalObject.put("gold", 54);
    medalObject.put("silver", 32);
    medalObject.put("bronze", 56);

    FormBindingData formBindingData = new FormBindingData(medalObject);
    providerFormInfo.setJsBindingData(formBindingData);
    return providerFormInfo;
}
```

```
<div class="list_wrapper">
  <div class="item">
    <image class="item_image" src="/common/ic_medal_gold.png"></image>
    <text class="item_text" onclick="routerEvent">金牌 {{gold}} </text>
  </div>
  <div class="item">
    <image class="item_image" src="/common/ic_medal_silver.png"></image>
    <text class="item_text" onclick="routerEvent">银牌 {{silver}} </text>
  </div>
  <div class="item">
    <image class="item_image" src="/common/ic_medal_bronze.png"></image>
    <text class="item_text" onclick="routerEvent">铜牌 {{bronze}} </text>
  </div>
</div>
```

```
"data": {
  "province": "",
  "gold": "",
  "silver": "",
  "bronze": "",
  "rank": ""
}
```



第3步：响应卡片交互事件

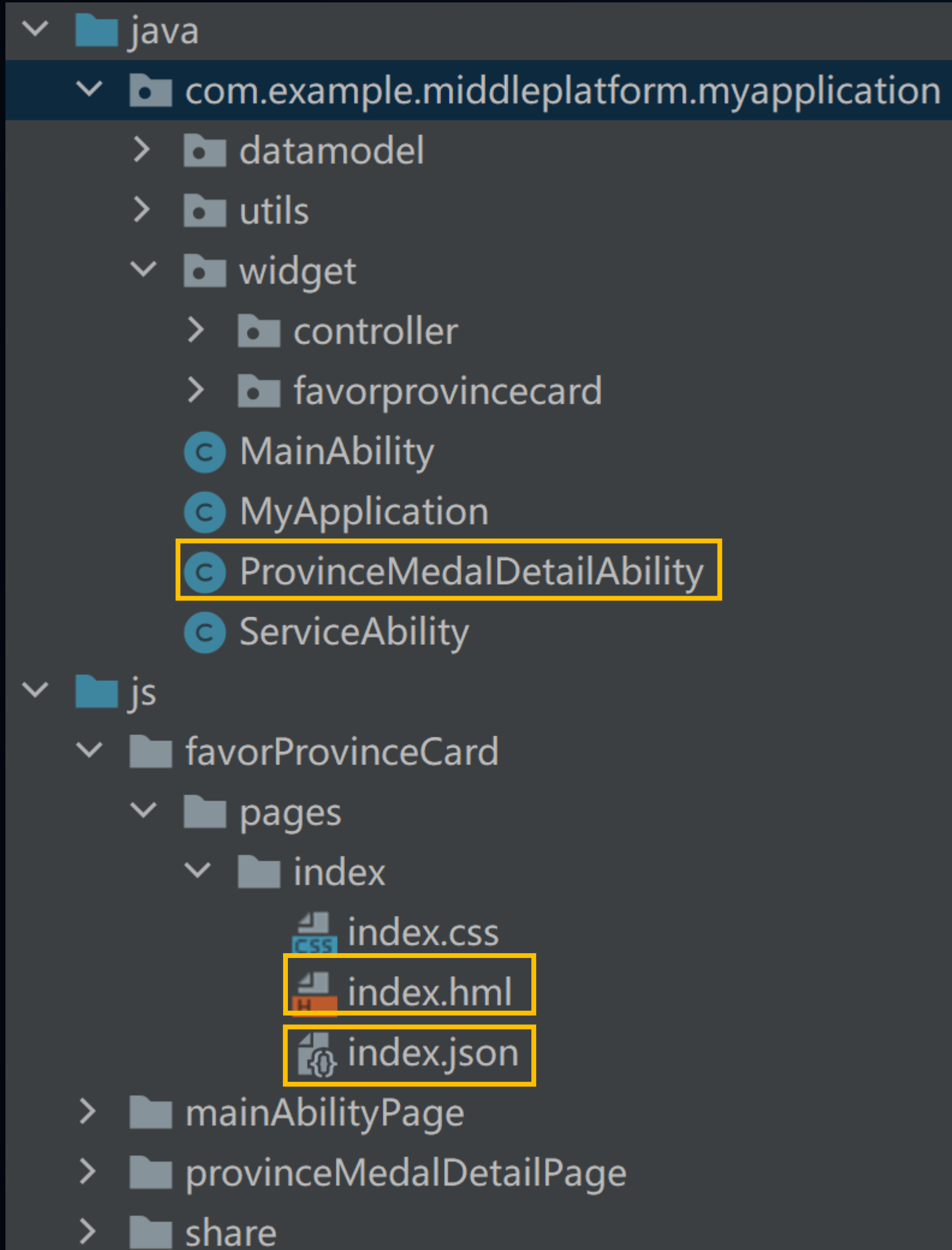
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角标 15pt

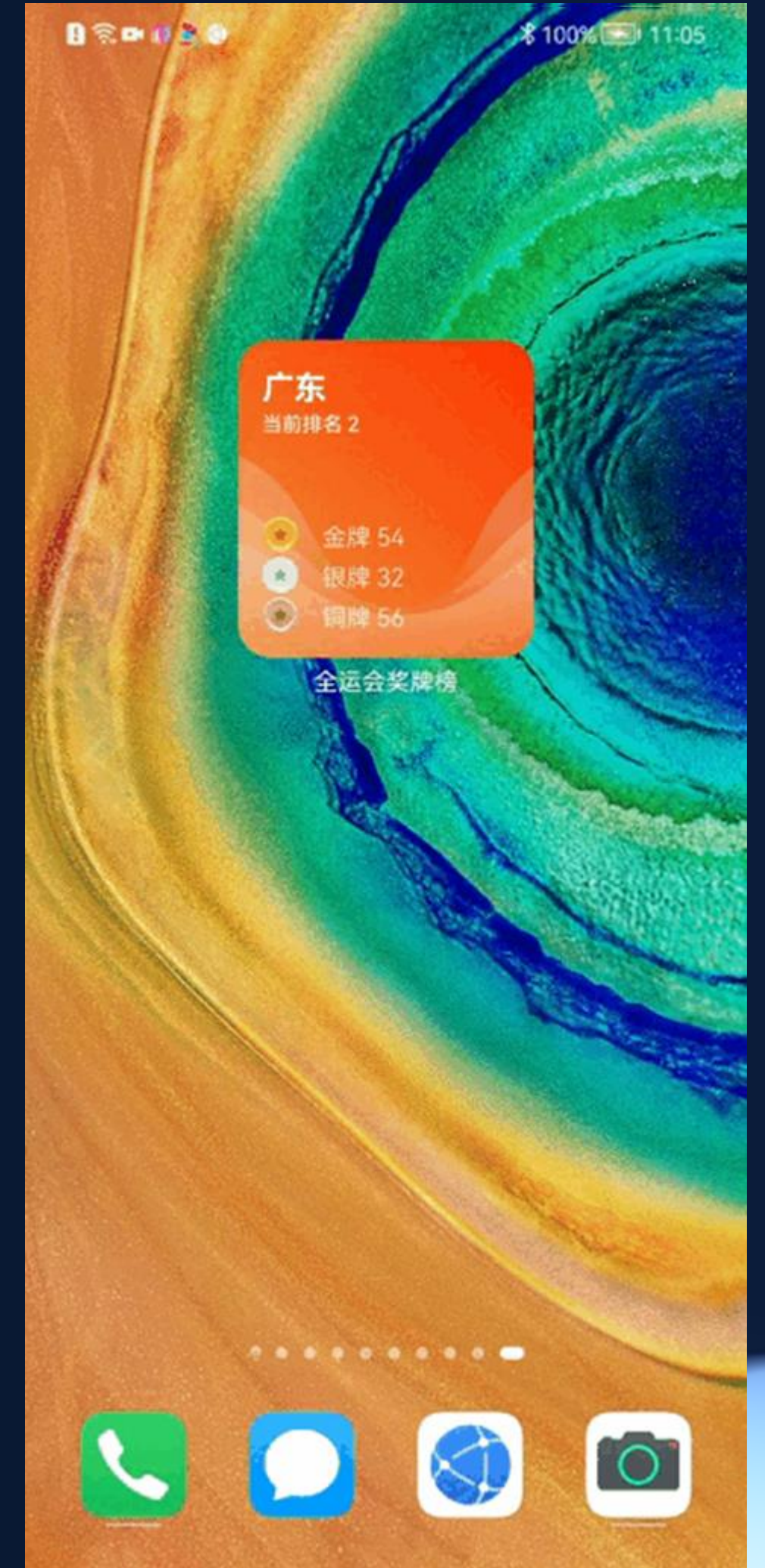
第3步：响应卡片交互事件



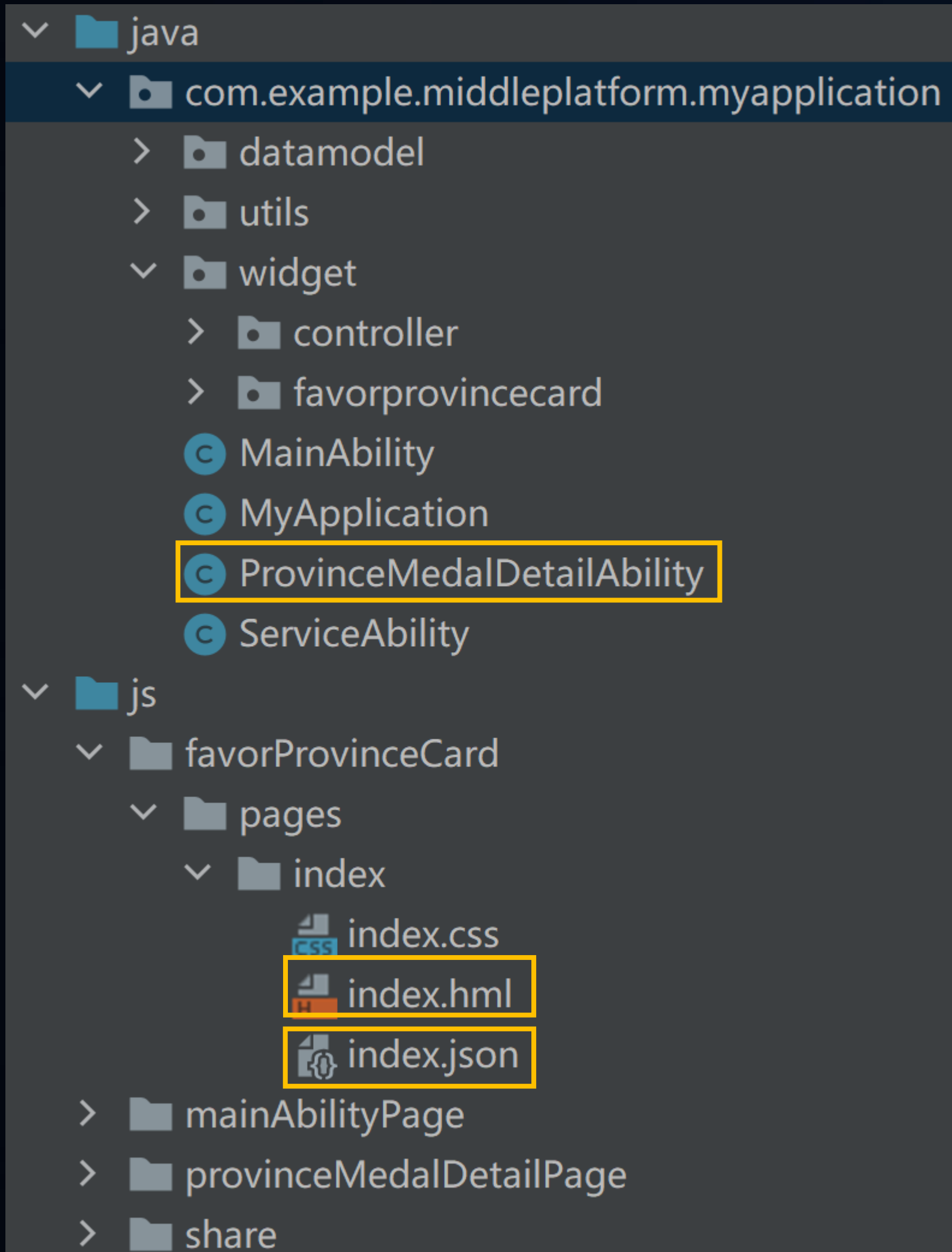
```
public class ProvinceMedalDetailAbility extends AceAbility {  
    @Override  
    public void onStart(Intent intent) {  
        setInstanceName("provinceMedalDetailPage");  
        String params = intent.getStringParam("params");  
        ZSONObject zsonObject = ZSONObject.stringToZSON(params);  
        IntentParams intentParams = new IntentParams();  
        intentParams.setParam("province", zsonObject.getString("province"));  
        setPageParams("pages/index/index", intentParams);  
        super.onStart(intent);  
    }  
}
```

```
<div class="container" onclick="routerEvent">  
    <div class="title_wrapper">  
        <text class="title_big">  
            {{province}}  
        </text>  
        .....  
    </div>  
    .....  
</div>
```

```
"actions": {  
    "routerEvent": {  
        "action": "router",  
        "abilityName": "com.example.middleplatform.myapplication.ProvinceMedalDetailAbility",  
        "params": {  
            "province": "{{province}}"  
        }  
    }  
}
```



第3步：响应卡片交互事件



```
public class ProvinceMedalDetailAbility extends AceAbility {  
    @Override  
    public void onStart(Intent intent) {  
        setInstanceName("provinceMedalDetailPage");  
        String params = intent.getStringParam("params");  
        ZSONObject zsonObject = ZSONObject.stringToZSON(params);  
        IntentParams intentParams = new IntentParams();  
        intentParams.setParam("province", zsonObject.getString("province"));  
        setPageParams("pages/index/index", intentParams);  
        super.onStart(intent);  
    }  
}
```

3

```
<div class="container" onclick="routerEvent">  
    <div class="title_wrapper">  
        <text class="title_big">  
            {{province }}  
        </text>  
        .....  
    </div>  
    .....  
</div>
```

2

```
"actions": {  
    "routerEvent": {  
        "action": "router",  
        "abilityName": "com.example.middleplatform.myapplication.ProvinceMedalDetailAbility",  
        "params": {  
            "province": "{{province}}"  
        }  
    }  
}
```

1



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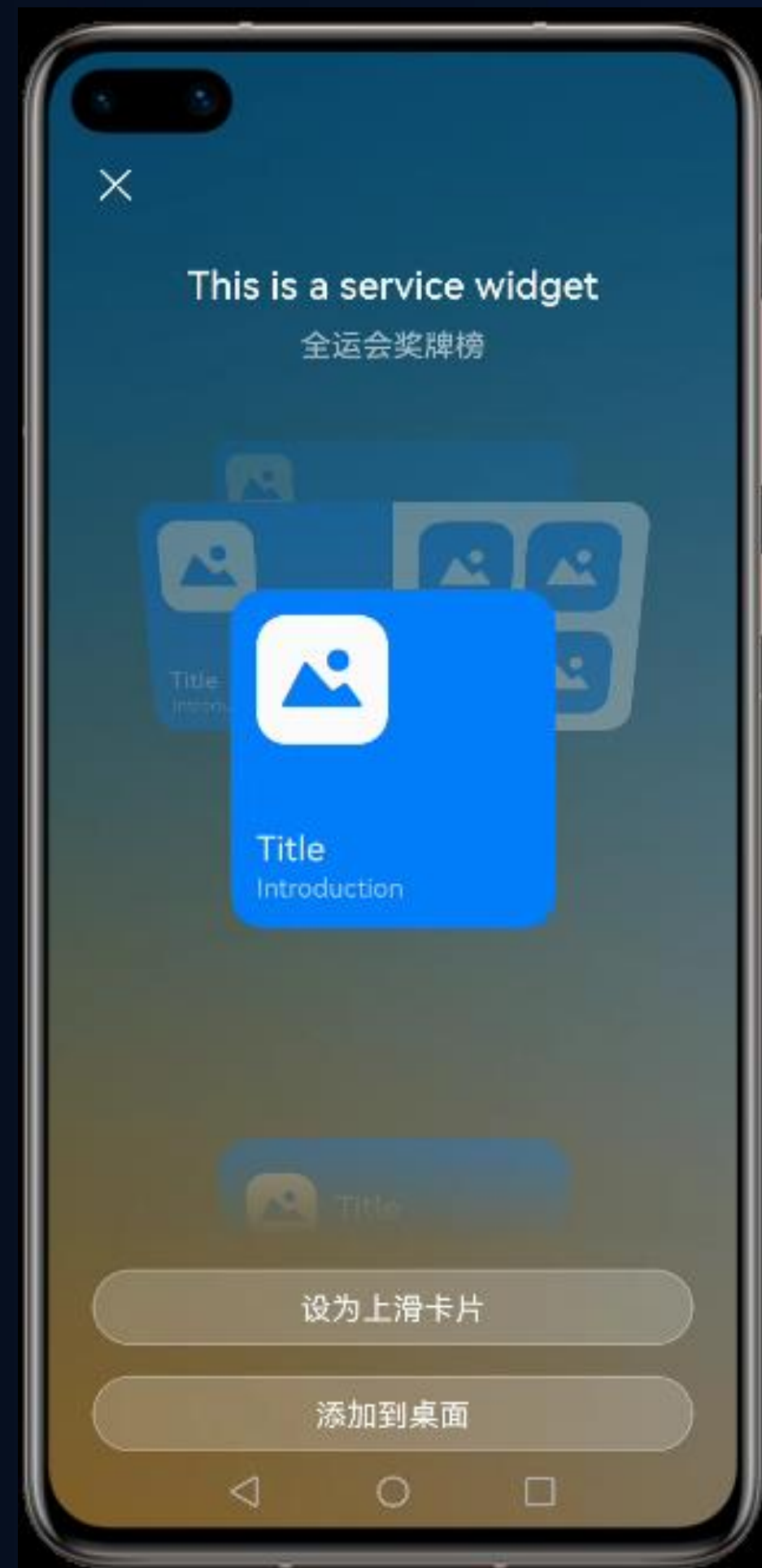
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更多玩法

更多玩法

1、多尺寸卡片

2、多设备适配



```
{
  "jsComponentName": "widget1",
  "isDefault": false,
  "scheduledUpdateTime": "10:30",
  "defaultDimension": "2*2",
  "name": "widget1",
  "description": "This is a service widget",
  "colorMode": "auto",
  "type": "JS",
  "supportDimensions": [
    "1*2",
    "2*2",
    "2*4",
    "4*4"
  ],
  "updateEnabled": true,
  "updateDuration": 1
}
```

更多玩法

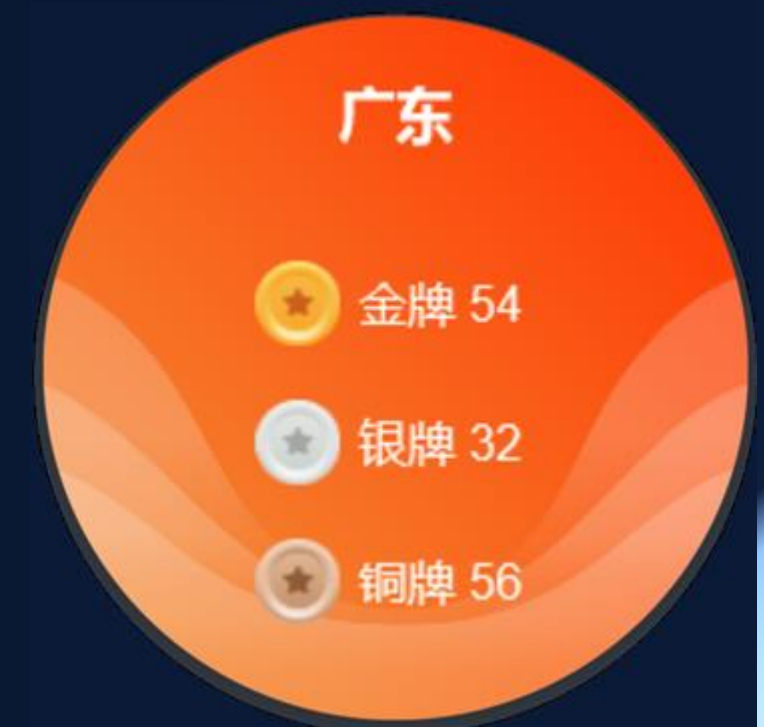
1、多尺寸卡片

2、多设备适配

```
@media (device-type: phone) {  
  .title_wrapper {  
    margin-top: 12px;  
    margin-left: 12px;  
  }  
  .title_big {  
    font-size: 16px;  
  }  
  .title_small {  
    margin-top: 2px;  
    font-size: 10px;  
  }  
  .item {  
    margin-top: 4px;  
  }  
  .item_image {  
    height: 18px;  
    width: 18px;  
  }  
  .item_text {  
    font-size: 12px;  
    font-weight: 300;  
    margin-left: 12px;  
  }  
}
```



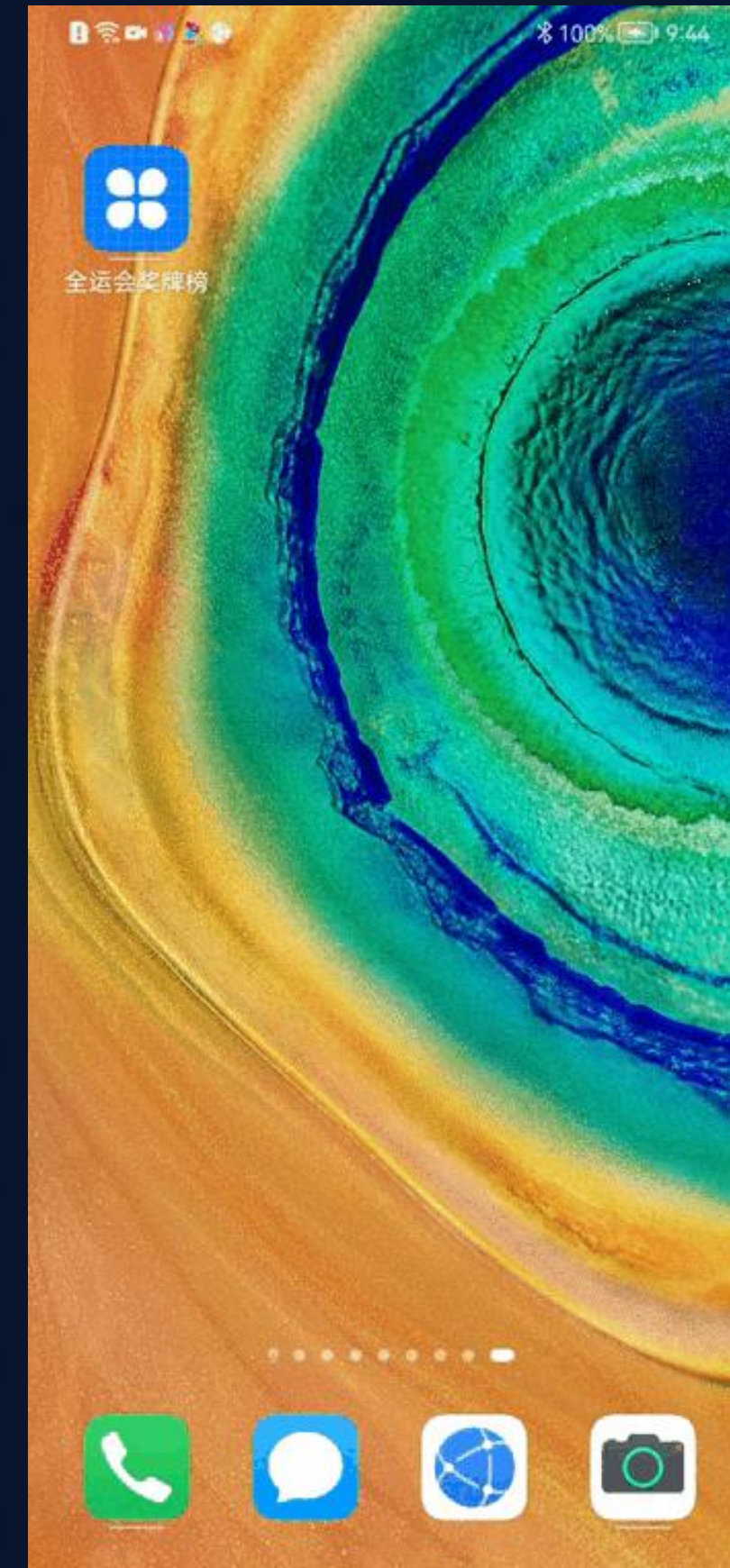
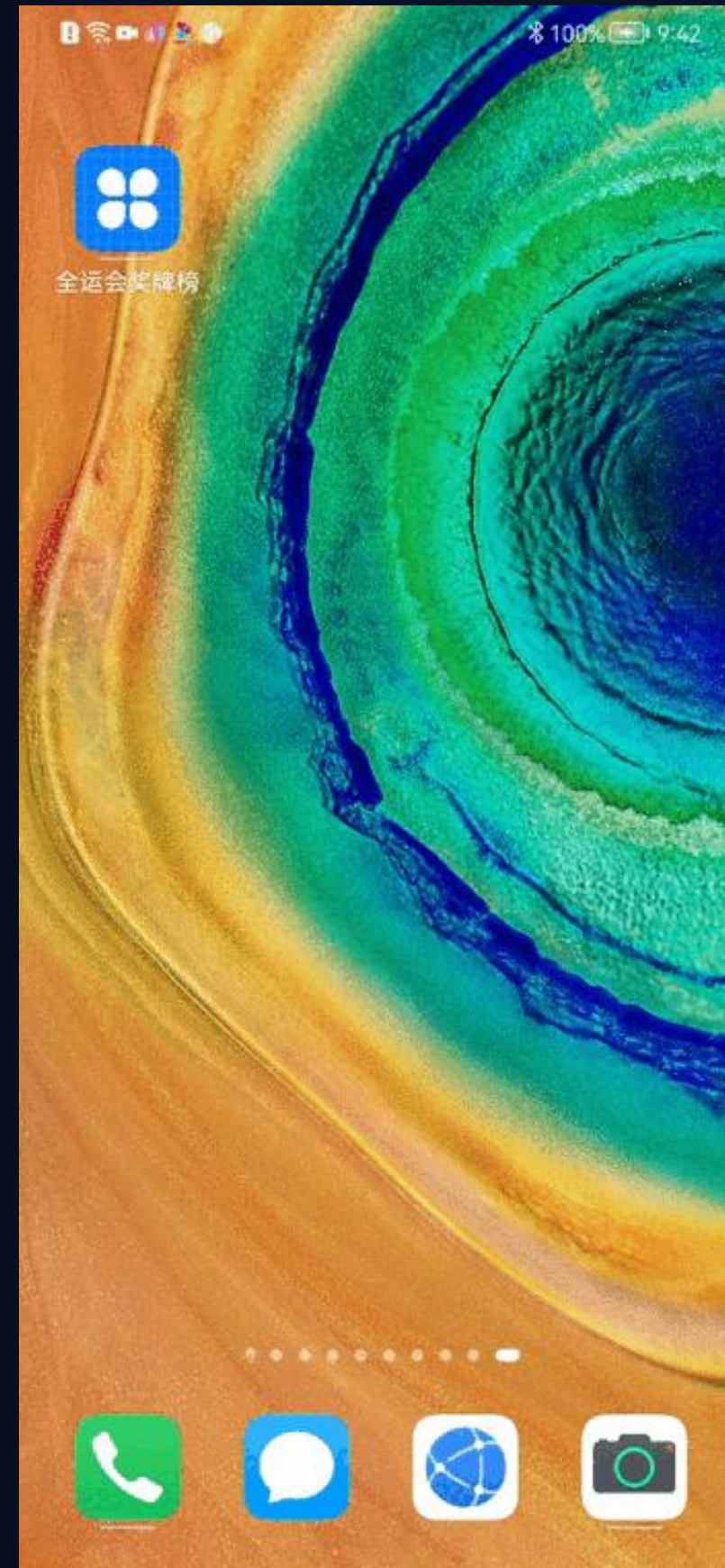
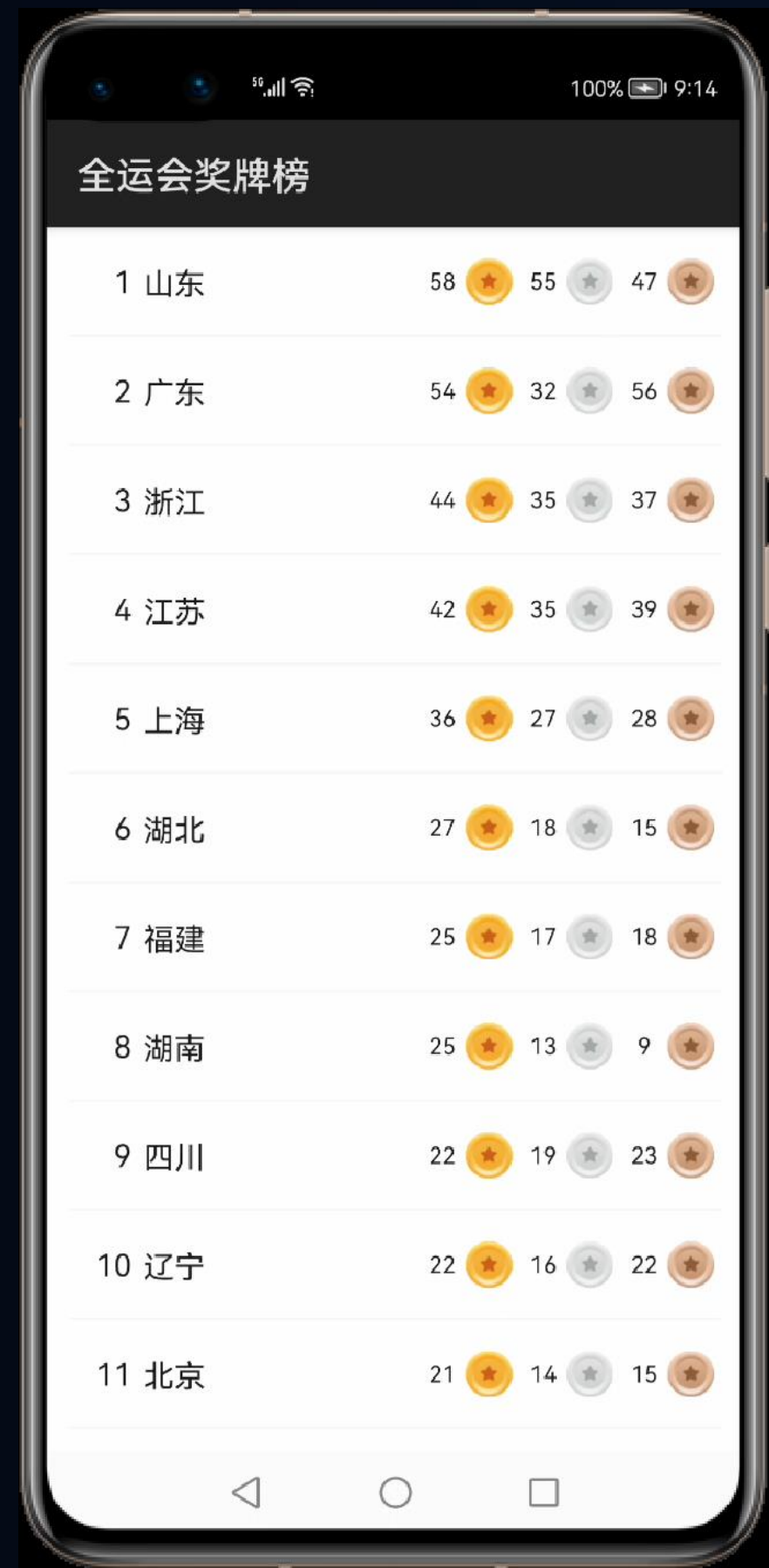
```
@media (device-type: wearable) {  
  .container {  
    justify-content: flex-start;  
    align-items: center;  
  }  
  .title_wrapper {  
    align-items: center;  
    margin-top: 20px;  
  }  
  .title_small {  
    display: none;  
  }  
  .list_wrapper {  
    justify-content: flex-start;  
    align-items: center;  
    margin-left: 26px;  
    margin-right: 26px;  
    position: fixed;  
    bottom: 40px;  
  }  
  .item {  
    justify-content: center;  
    align-items: center;  
    margin-left: 26px;  
    margin-right: 26px;  
    margin-top: 18px;  
  }  
  .item_image {  
    width: 28px;  
    height: 28px;  
  }  
  .item_text {  
    width: 94%;  
    font-size: 24px;  
    margin-left: 12px;  
  }  
}
```



最终效果

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总结

- 服务卡片特点：服务直达、高颜值
- 3步15分钟开发奖牌榜卡片
- 多尺寸、多设备适配等更多玩法

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开发者训练营

CodeLabs 挑战赛

HarmonyOS技术征文

HarmonyOS开发者创新大赛



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谢谢



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