

Server driven UI development

What and How data should be shown

Surbhi & Vamsi

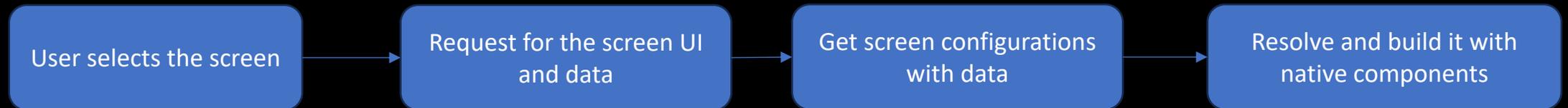
Agenda

- Overview
- Why we need it?
- Architectural Concerns
- Key Considerations
- Demo

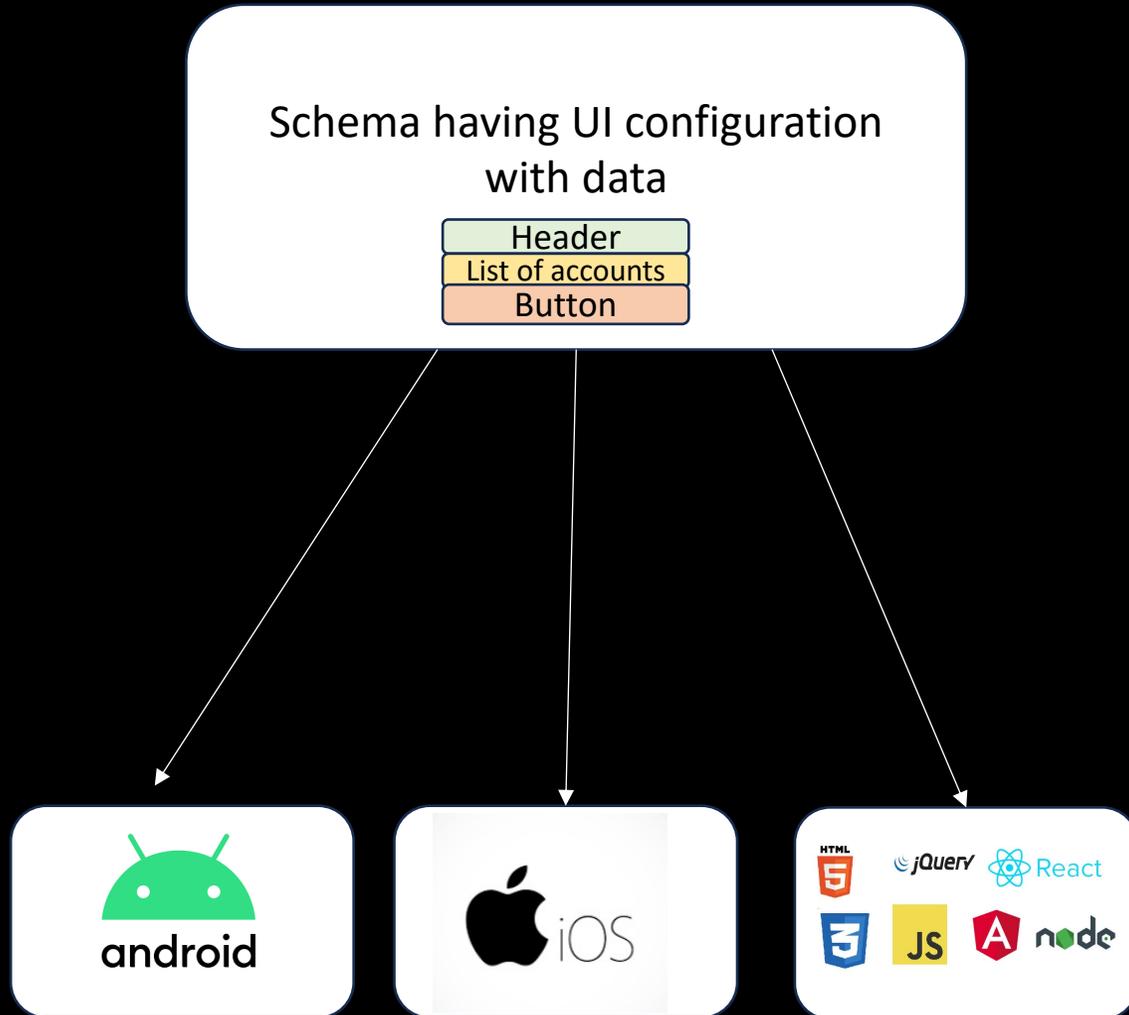
Overview

Two main components to build an app

- A Service that is responsible for creating the screen structure with its respective configurations, data, and actions.
- An app that performs the screen requests and assembles the components with the returned configurations.



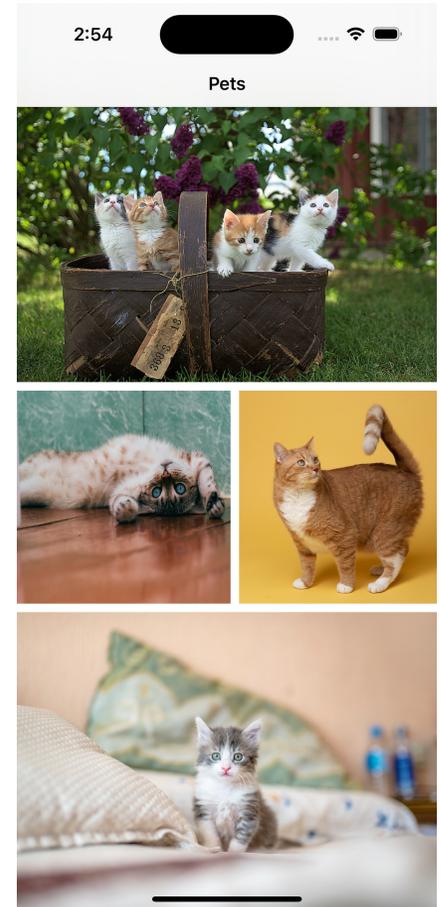
Why we need it?

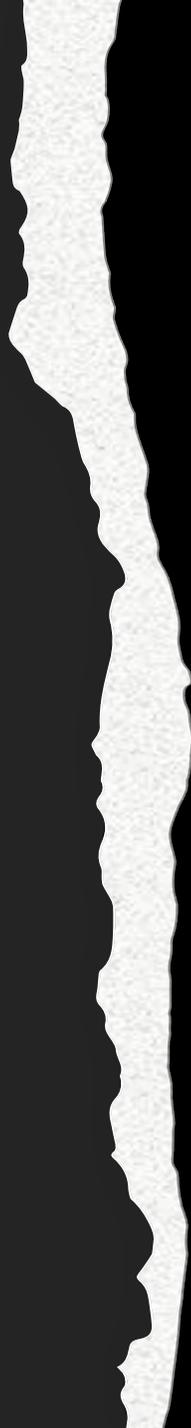


- The unified client approach
- Faster delivery
- Code reusability
- A/B testing
- Personalization
- Testing

Sample example

```
1 {
2   "pageTitle": "Pets",
3   "components": [
4     {
5       "type": "featuredImage",
6       "data": {
7         "imageUrl":
8           "https://images.unsplash.com/photo-1517331156700-3c241d2b4d83?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1468&q=80"
9       }
10    },
11    {
12      "type": "carousel",
13      "data": {
14        "items": [
15          {
16            "petId": 1,
17            "imageUrl":
18              "https://images.unsplash.com/photo-1589883661923-6476cb0ae9f2?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=2574&q=80"
19          },
20          {
21            "petId": 2,
22            "imageUrl":
23              "https://images.unsplash.com/photo-1596854407944-bf87f6fdd49e?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1160&q=80"
24          },
25          {
26            "petId": 3,
27            "imageUrl":
28              "https://images.unsplash.com/photo-1529257414772-1960b7bea4eb?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80"
29          },
30          {
31            "petId": 4,
32            "imageUrl":
33              "https://images.unsplash.com/photo-1533743983669-94fa5c4338ec?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1392&q=80"
34          }
35        ],
36        "action": {
37          "type": "sheet",
38          "destination": "petDetail"
39        }
40      }
41    },
42    {
43      "type": "featuredImage",
44      "data": {
45        "imageUrl":
46          "https://images.unsplash.com/photo-1533743983669-94fa5c4338ec?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1392&q=80"
47      }
48    }
49  ]
50 }
```





What if we want to have
carousel on top?

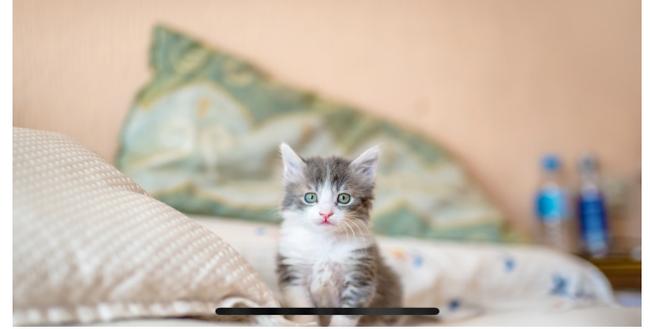
```

{
  "pageTitle": "Pets",
  "components": [
    {
      "type": "carousel",
      "data": {
        "items": [
          {
            "petId": 1,
            "imageUrl": "https://images.unsplash.com/photo-1589883661923-6476cb0ae9f2?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=2574&q=80"
          },
          {
            "petId": 2,
            "imageUrl": "https://images.unsplash.com/photo-1596854407944-bf87f6fdd49e?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1160&q=80"
          },
          {
            "petId": 3,
            "imageUrl": "https://images.unsplash.com/photo-1529257414772-1960b7bea4eb?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1470&q=80"
          },
          {
            "petId": 4,
            "imageUrl": "https://images.unsplash.com/photo-1533743983669-94fa5c4338ec?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1392&q=80"
          }
        ]
      },
      "action": {
        "type": "sheet",
        "destination": "petDetail"
      }
    },
    {
      "type": "featuredImage",
      "data": {
        "imageUrl": "https://images.unsplash.com/photo-1517331156700-3c241d2b4d83?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1468&q=80"
      }
    },
    {
      "type": "featuredImage",
      "data": {
        "imageUrl": "https://images.unsplash.com/photo-1533743983669-94fa5c4338ec?ixlib=rb-1.2.1&ixid=MnwxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8&auto=format&fit=crop&w=1392&q=80"
      }
    }
  ]
}

```



Pets



Architectural Concerns



Complexity



Upfront Cost



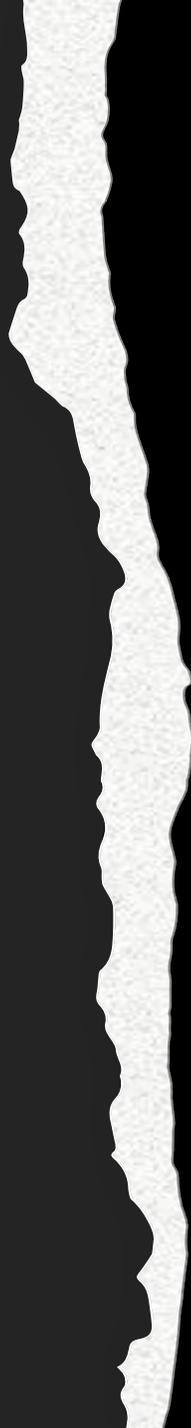
Performance



New UI components

Key considerations

- Caching the response
- API versioning
- Feature JSON



Demo

Q&A

Thank you
