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EXPERIMENT NO 5

Aim: To apply navigation routing and gestures in an Flutter App

Theory:

Navigation routing in Flutter refers to the process of defining and managing the routes or screens within your app. Flutter's navigation routing system allows you to move between different screens or pages in a structured and organized way. Here's an overview:

Route Definition: In Flutter, each screen or page in your app is typically represented by a widget. To define routes, you create a mapping between route names and the corresponding widget classes. This mapping is often done in the MaterialApp widget using the routes parameter.

Named Routes: Named routes are a common approach in Flutter for defining routes using unique names. Each route is associated with a name, making it easier to navigate to specific screens by referencing these names. For example, you can define routes like '/home', '/profile', '/settings', etc.

Navigation Stack: Flutter's navigation system maintains a stack of route objects. When you navigate to a new screen, the new route is pushed onto the stack. When you navigate back, the top route is popped off the stack, returning you to the previous screen.

Navigator: The Navigator class in Flutter is responsible for managing the navigation stack and transitioning between routes. You can use methods like Navigator.push() to navigate to a new route, Navigator.pop() to return to the previous route, and Navigator.pushNamed() to navigate to a named route.

MaterialPageRoute and CupertinoPageRoute: Flutter provides two types of page route classes - MaterialPageRoute for Android-style navigation and CupertinoPageRoute for iOS-style navigation. These classes define transitions and behaviors specific to each platform.

Route Parameters: You can pass parameters between routes in Flutter using the arguments parameter of the navigation methods (Navigator.pushNamed() or Navigator.push()). This allows you to send data to the next screen or receive data from the previous screen.

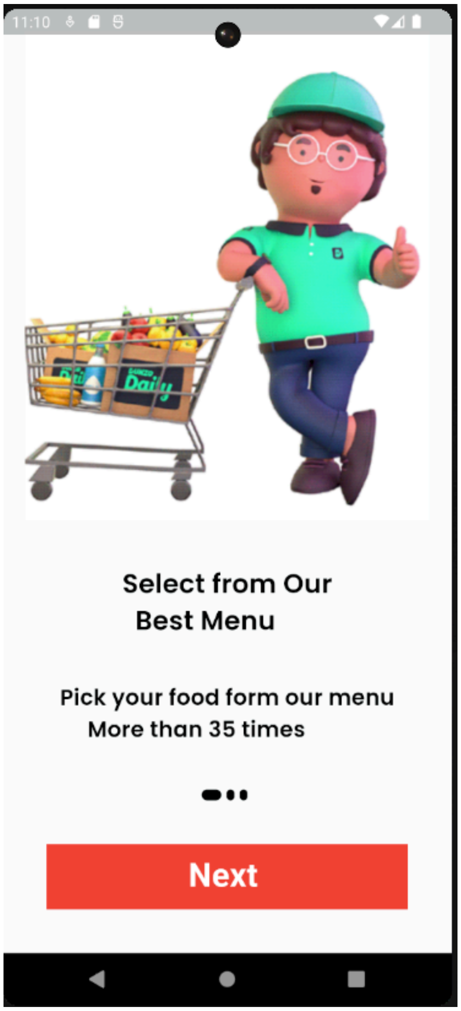
Modal Routes: Modal routes are routes that appear on top of other routes and typically block interaction with the underlying routes until they are dismissed. You can create modal routes using methods like showDialog() or by using Navigator.push() with a PageRouteBuilder and setting the fullscreenDialog parameter to true.

Code:

```
import 'package:dunzo/pages/signup.dart';
import 'package:dunzo/widget/content_model.dart';
import 'package:dunzo/widget/widget_support.dart';
import 'package:flutter/material.dart';

class OnBoard extends StatefulWidget {
  const OnBoard({super.key});

  @override
  State<OnBoard> createState() => _OnBoardState();
}

class _OnBoardState extends State<OnBoard> {
  int currentIndex = 0;
  late PageController _controller;

  @override
  void initState() {
    _controller = PageController(initialPage: 0);

    super.initState();
  }

  @override
  void dispose() {
    _controller.dispose();
    super.dispose();
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: Column(children: [
        Expanded(
          child: PageView.builder(
              controller: _controller,
              itemCount: contents.length,
              onPageChanged: (int index) {
```

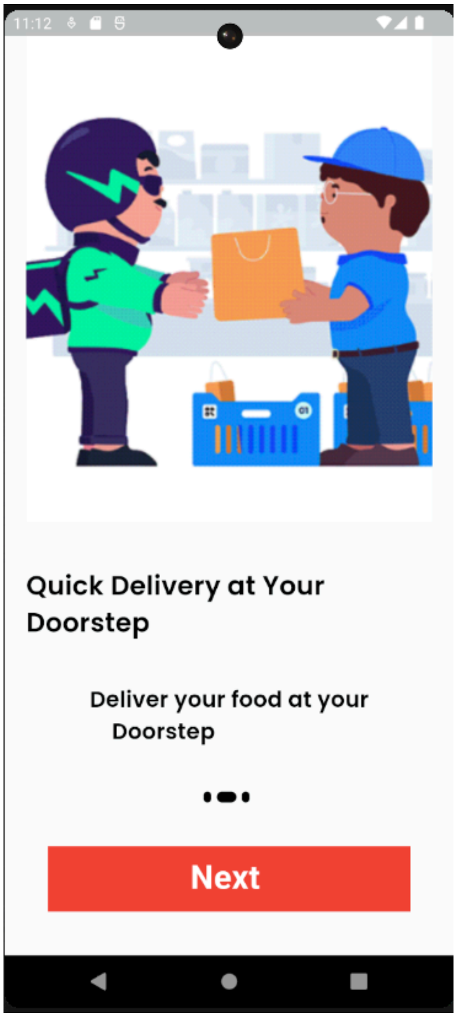
```
        setState(() {
          currentIndex = index;
        });
      },
      itemBuilder: (_, i) {
        return Padding(
          padding: const EdgeInsets.all(20),
          child: Column(
            children: [
              Image.asset(contents[i].image,
                  height: 450,
                  width: MediaQuery.of(context).size.width,
                  fit: BoxFit.cover),
              const SizedBox(
                height: 40.0,
              ),
              Text(contents[i].title,
                  style: AppWidget.headerTextFieldStyle()),
              const SizedBox(
                height: 40.0,
              ),
              Text(contents[i].description,
                  style: AppWidget.boldTextFieldStyle()),
            ],
          ),
        );
      }),
),
Container(
  child: Row(
    mainAxisAlignment: MainAxisAlignment.center,
    children: List.generate(
      contents.length,
      (index) => buildDot(index, context),
    ),
  ),
),
GestureDetector(
  onTap: () {
    if (currentIndex == contents.length - 1) {
      Navigator.push(context,
          MaterialPageRoute(builder: (context) => const SignUp()));
    }
    _controller.nextPage(
                duration: const Duration(milliseconds: 100),
                curve: Curves.bounceIn);
          },
          child: Container(
            decoration: const BoxDecoration(color: Colors.red),
            height: 60,
            padding: const EdgeInsets.only(left: 130, top: 7),
            margin: const EdgeInsets.all(40),
            width: double.infinity,
            child: const Text(
              "Next",
              style: TextStyle(
                color: Colors.white,
                fontSize: 30,
                fontWeight: FontWeight.bold,
                fontFamily: "Poppins1",
              ),
            ),
          ),
        )
      ]),
    );
  }

  Container buildDot(int index, BuildContext context) {
    return Container(
      height: 10.0,
      width: currentIndex == index ? 18 : 7,
      margin: const EdgeInsets.only(right: 5),
      decoration: BoxDecoration(
          borderRadius: BorderRadius.circular(6), color: Colors.black),
    );
  }
}
```

Output:



Select from Our
Best Menu

Pick your food form our menu
More than 35 times



Quick Delivery at Your
Doorstep

Deliver your food at your
Doorstep