Exp 3. To include icons, images, fonts in Flutter app

Theory:

1. Icons:

Flutter Icons:

Flutter comes with its set of built-in icons, and you can easily use them in your app. These icons are part of the Icons class, and you can directly reference them in your code.

Custom Icons:

For custom icons, you can use Flutter's flutter_launcher_icons package or create your custom icons using tools like FlutterIcon.
To use custom icons, add the image to your project and reference it in your code:

2. Images:

Asset Images:

Include images in your Flutter app by placing them in the assets directory. To use these images, add them to the pubspec.yaml file:
yaml
Copy code
flutter:
 assets:
 - assets/images/image1.png
 - assets/images/image2.jpg

Then, use Image.asset to display them:
dart
Image.asset('assets/images/image1.png');

Network Images:

Load images from the network using the Image.network widget:
dart

Copy code
```
Image.network('https://example.com/image.jpg');
```

3. Fonts:

Custom Fonts:

To include custom fonts, place the font files (e.g., .ttf or .otf) in a fonts directory. Update the pubspec.yaml file:
yaml

Then, use the TextStyle with your custom font:
dart
Copy code
```
Text(
 'Custom Font Text',
 style: TextStyle(
 fontFamily: 'CustomFont',
 ),
);
```

4. Using Packages:

Icon Packages:

Consider using icon packages like flutter_icons or font_awesome_flutter for a wide range of icons.

Image Packages:

For managing and loading images efficiently, you can use packages like cached_network_image for network images or image_picker for accessing device images.

Font Packages:

Explore font packages like google_fonts to easily use Google Fonts in your app.

5. Accessibility:

Ensure your app is accessible by providing alternative text for images using Semantics or ExcludeSemantics widgets.

Code:

```dart
import 'package:fitness/common/colo_extension.dart';
import 'package:fitness/common_widget/icon_title_next_row.dart';
import 'package:fitness/common_widget/round_button.dart';
import 'package:fitness/view/workout_tracker/exercises_stpe_details.dart';
import 'package:fitness/view/workout_tracker/add_schedule_view.dart';
import 'package:flutter/material.dart';

import '../../common_widget/exercises_set_section.dart';

class WorkoutDetailView extends StatefulWidget {
  final Map dObj;
  const WorkoutDetailView({Key? key, required this.dObj}) : super(key: key);

  @override
  State<WorkoutDetailView> createState() => _WorkoutDetailViewState();
}

class _WorkoutDetailViewState extends State<WorkoutDetailView> {
  List latestArr = [
    {"image": "assets/img/Workout1.png", "title": "Fullbody Workout", "time": "Today, 03:00pm"},
    {"image": "assets/img/Workout2.png", "title": "Upperbody Workout", "time": "June 05, 02:00pm"},
```

```dart
  ];

  List youArr = [
    {"image": "assets/img/barbell.png", "title": "Barbell"},
    {"image": "assets/img/skipping_rope.png", "title": "Skipping Rope"},
    {"image": "assets/img/bottle.png", "title": "Bottle 1 Liters"},
  ];

  List exercisesArr = [
    {
      "name": "Set 1",
      "set": [
        {"image": "assets/img/img_1.png", "title": "Warm Up", "value": "05:00"},
        {"image": "assets/img/img_2.png", "title": "Jumping Jack", "value": "12x"},
        {"image": "assets/img/img_1.png", "title": "Skipping", "value": "15x"},
        {"image": "assets/img/img_2.png", "title": "Squats", "value": "20x"},
        {"image": "assets/img/img_1.png", "title": "Arm Raises", "value": "00:53"},
        {"image": "assets/img/img_2.png", "title": "Rest and Drink", "value": "02:00"},
      ],
    },
    {
      "name": "Set 2",
      "set": [
        {"image": "assets/img/img_1.png", "title": "Warm Up", "value": "05:00"},
        {"image": "assets/img/img_2.png", "title": "Jumping Jack", "value": "12x"},
        {"image": "assets/img/img_1.png", "title": "Skipping", "value": "15x"},
        {"image": "assets/img/img_2.png", "title": "Squats", "value": "20x"},
        {"image": "assets/img/img_1.png", "title": "Arm Raises", "value": "00:53"},
        {"image": "assets/img/img_2.png", "title": "Rest and Drink", "value": "02:00"},
      ],
    }
  ];
  late DateTime selectedDate = DateTime.now();
  late String selectedTime = "5/27, 09:00 AM"; // Default time

  late TimeOfDay selectedTimeOfDay = TimeOfDay.now();
  late String chosenWorkout = "Upperbody";
```

```dart
  late String difficulty = "Beginner";
  late String customRepetitions = "";
  late String customWeights = "";

  void updateState(Map updatedDetails) {
    setState(() {
      selectedTime = updatedDetails['selectedTime'];
      chosenWorkout = updatedDetails['chosenWorkout'];
      difficulty = updatedDetails['difficulty'];
      customRepetitions = updatedDetails['customRepetitions'];
      customWeights = updatedDetails['customWeights'];
    });
  }

  @override
  Widget build(BuildContext context) {
    var media = MediaQuery.of(context).size;
    return Container(
      decoration: BoxDecoration(gradient: LinearGradient(colors: TColor.primaryG)),
      child: NestedScrollView(
        headerSliverBuilder: (context, innerBoxIsScrolled) {
          return [
            SliverAppBar(
              backgroundColor: Colors.transparent,
              centerTitle: true,
              elevation: 0,
              leading: InkWell(
                onTap: () {
                  Navigator.pop(context);
                },
                child: Container(
                  margin: const EdgeInsets.all(8),
                  height: 40,
                  width: 40,
                  alignment: Alignment.center,
                  decoration: BoxDecoration(
                    color: TColor.lightGray,
```

```
          borderRadius: BorderRadius.circular(10)),
        child: Image.asset(
          "assets/img/black_btn.png",
          width: 15,
          height: 15,
          fit: BoxFit.contain,
        ),
      ),
    ),
    actions: [
      InkWell(
        onTap: () {},
        child: Container(
          margin: const EdgeInsets.all(8),
          height: 40,
          width: 40,
          alignment: Alignment.center,
          decoration: BoxDecoration(
            color: TColor.lightGray,
            borderRadius: BorderRadius.circular(10)),
          child: Image.asset(
            "assets/img/more_btn.png",
            width: 15,
            height: 15,
            fit: BoxFit.contain,
          ),
        ),
      )
    ],
  ),
  SliverAppBar(
    backgroundColor: Colors.transparent,
    centerTitle: true,
    elevation: 0,
    leadingWidth: 0,
    leading: Container(),
    expandedHeight: media.width * 0.5,
```

```
        flexibleSpace: Align(
          alignment: Alignment.center,
          child: Image.asset(
            "assets/img/detail_top.png",
            width: media.width * 0.75,
            height: media.width * 0.8,
            fit: BoxFit.contain,
          ),
        ),
      ),
    ];
  },
  body: Container(
    padding: const EdgeInsets.symmetric(horizontal: 15),
    decoration: BoxDecoration(
        color: TColor.white,
        borderRadius: const BorderRadius.only(
            topLeft: Radius.circular(25), topRight: Radius.circular(25))),
    child: Scaffold(
      backgroundColor: Colors.transparent,
      body: Stack(
        children: [
          SingleChildScrollView(
            child: Column(
              children: [
                const SizedBox(
                  height: 10,
                ),
                Container(
                  width: 50,
                  height: 4,
                  decoration: BoxDecoration(
                      color: TColor.gray.withOpacity(0.3),
                      borderRadius: BorderRadius.circular(3)),
                ),
                SizedBox(
                  height: media.width * 0.05,
```

```dart
      ),
      Row(
       mainAxisAlignment: MainAxisAlignment.spaceBetween,
       children: [
        Expanded(
          child: Column(
           crossAxisAlignment: CrossAxisAlignment.start,
           children: [
             Text(
              widget.dObj["title"].toString(),
              style: TextStyle(
                 color: TColor.black,
                 fontSize: 16,
                 fontWeight: FontWeight.w700),
             ),
             Text(
              "${widget.dObj["exercises"].toString()} | ${widget.dObj["time"].toString()}
| 320 Calories Burn",
                  style: TextStyle(
                     color: TColor.gray, fontSize: 12),
              ),
            ],
          ),
         ),
         TextButton(
          onPressed: () {},
          child:

 Image.asset(
              "assets/img/fav.png",
              width: 15,
              height: 15,
              fit: BoxFit.contain,
            ),
          )
        ],
       ),
```

```
SizedBox(
  height: media.width * 0.05,
),
IconTitleNextRow(
  icon: "assets/img/time.png",
  title: "Schedule Workout..",
  time: selectedTime,
  color: TColor.primaryColor2.withOpacity(0.3),
  onPressed: () async {
    var updatedDetails = await Navigator.push(
      context,
      MaterialPageRoute(
        builder: (context) => AddScheduleView(
          date: selectedDate,
          onUpdate: updateState,
        ),
      ),
    );

    if (updatedDetails != null) {
      updateState(updatedDetails);
    }
  },
),
SizedBox(
  height: media.width * 0.02,
),
SizedBox(
  height: media.width * 0.05,
),
Row(
  mainAxisAlignment: MainAxisAlignment.spaceBetween,
  children: [
    Text(
      "You'll Need",
      style: TextStyle(
          color: TColor.black,
```

```
              fontSize: 16,
              fontWeight: FontWeight.w700),
          ),
        TextButton(
          onPressed: () {},
          child: Text(
            "${youArr.length} Items",
            style:
                TextStyle(color: TColor.gray, fontSize: 12),
          ),
        )
      ],
    ),
    SizedBox(
      height: media.width * 0.5,
      child: ListView.builder(
          padding: EdgeInsets.zero,
          scrollDirection: Axis.horizontal,
          shrinkWrap: true,
          itemCount: youArr.length,
          itemBuilder: (context, index) {
            var yObj = youArr[index] as Map? ?? {};
            return Container(
                margin: const EdgeInsets.all(8),
                child: Column(
                  crossAxisAlignment:
                      CrossAxisAlignment.start,
                  children: [
                    Container(
                      height: media.width * 0.35,
                      width: media.width * 0.35,
                      decoration: BoxDecoration(
                          color: TColor.lightGray,
                          borderRadius:
                              BorderRadius.circular(15)),
                      alignment: Alignment.center,
                      child: Image.asset(
```
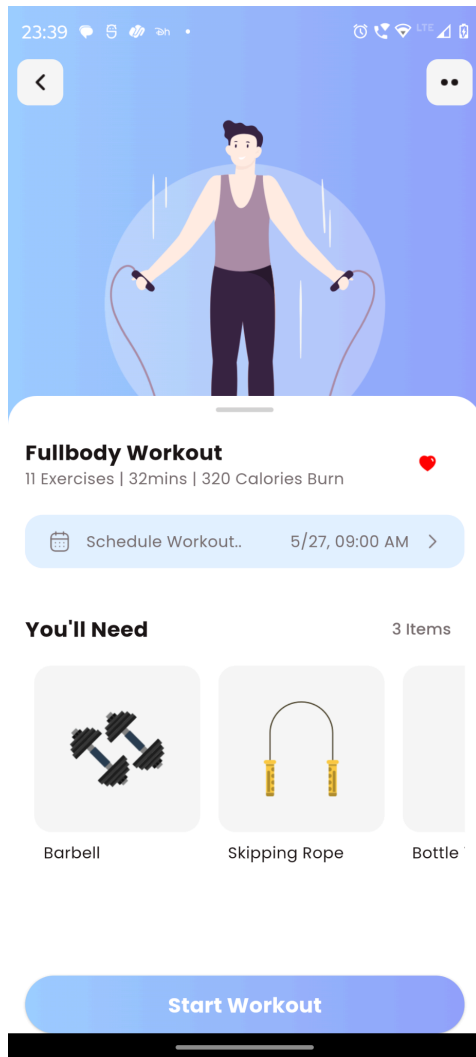
```
                          yObj["image"].toString(),
                          width: media.width * 0.2,
                          height: media.width * 0.2,
                          fit: BoxFit.contain,
                        ),
                      ),
                      Padding(
                        padding: const EdgeInsets.all(8.0),
                        child: Text(
                          yObj["title"].toString(),
                          style: TextStyle(
                              color: TColor.black,
                              fontSize: 12),
                        ),
                      )
                    ],
                  ));
              }),
            ),
            SizedBox(
              height: media.width * 0.05,
            ),
            SizedBox(
              height: media.width * 0.1,
            ),
          ],
        ),
      ),
      SafeArea(
        child: Column(
          mainAxisSize: MainAxisSize.max,
          mainAxisAlignment: MainAxisAlignment.end,
          children: [
            RoundButton(title: "Start Workout", onPressed: () {})
          ],
        ),
      )
```

```
        ],
      ),
     ),
    ),
   ),
  );
 }
}
```

o/p:

Conclusion:

In summary, integrating icons, images, and fonts in Flutter enriches the app's visual experience, fostering design flexibility and user engagement. Leveraging packages further enhances development efficiency and diversity, while prioritizing accessibility ensures inclusivity for all users.