

**MAD and PWA Lab  
EXPERIMENT - 3**

**Aim: To include icons, images, fonts in Flutter app**

**Theory:**

Fonts:

In Flutter, the TextStyle class is used to define the styling for text within the Text widget or other widgets that involve displaying text. Here's an overview of how you can use the TextStyle class to set various font-related properties

fontSize:

You can set the size of the font using the fontSize property.

fontWeight:

The fontWeight property allows you to set the thickness of the characters in the text.

fontStyle:

The fontStyle property lets you specify whether the text should be in normal, italic, or oblique style.

fontFamily:

You can specify the font family using the fontFamily property. This refers to the specific font you want to use, and it should be available in your project.

decoration:

The decoration property allows you to add decorations to the text, such as underline or overline

**Text**

A Text widget holds some text to display on the screen. We can align the text widget by using textAlign property, and style property allow the customization of Text that includes font, font weight, font style, letter spacing, color, and many more.

**1. Button**

This widget allows you to perform some action on click. Flutter does not allow you to use the Button widget directly; instead, it uses a type of buttons like a FlatButton and a RaisedButton.

**2. Image**

This widget holds the image which can fetch it from multiple sources like from the asset folder or directly from the URL. It provides many constructors for loading image, which are given below:

o Image: It is a generic image loader, which is used by ImageProvider.

o asset: It load image from your project asset folder.

o file: It loads images from the system folder.

o memory: It load image from memory.

o network: It loads images from the network.

To add an image in the project, you need first to create an assets folder where you keep your images and then add the below line in pubspec.yaml file.

```
assets:  
- assets/images
```

### **Code:**

#### **Booking\_details\_screen**

```
import 'dart:ui';  
  
import 'package:flutter/material.dart';  
import 'package:go_router/go_router.dart';  
import 'package:models/models.dart';  
  
import '../shared/theme/colors.dart';  
import '../shared/widgets/select_date_widget.dart';  
import '../shared/widgets/select_destination_widget.dart';  
import '../shared/widgets/select_guests_widget.dart';  
  
class BookingDetailsScreen extends StatefulWidget {  
  const BookingDetailsScreen({super.key});  
  
  @override  
  State<BookingDetailsScreen> createState() => _BookingDetailsScreenState();  
}  
  
class _BookingDetailsScreenState extends State<BookingDetailsScreen> {  
  var step = BookingStep.selectDate;  
  
  @override  
  Widget build(BuildContext context) {  
    final textTheme = Theme.of(context).textTheme;  
  
    return BackdropFilter(  
      filter: ImageFilter.blur(sigmaX: 8.0, sigmaY: 8.0),  
      child: Scaffold(  
        backgroundColor: appWhite.withOpacity(0.5),  
        appBar: AppBar(  
          backgroundColor: Colors.transparent,  
          automaticallyImplyLeading: false,  
          leading: IconButton(  
            onPressed: () => context.pop(),  
            icon: const Icon(Icons.close),  
          ),  
        ),  
      ),  
    );  
  }  
}
```

```

title: Row(
  mainAxisAlignment: MainAxisAlignment.center,
  children: [
    TextButton(
      onPressed: () {},
      child: Text(
        'Stays',
        style: textTheme.titleMedium!.copyWith(
          fontWeight: FontWeight.bold,
        ),
      ),
    ),
    TextButton(
      onPressed: () {},
      child: Text(
        'Experiences',
        style: textTheme.titleMedium,
      ),
    ),
  ],
),
actions: const [SizedBox(width: 48.0)],
),
body: SingleChildScrollView(
  child: Padding(
    padding: const EdgeInsets.only(left: 16.0, right: 16.0, top: 16.0),
    child: Column(
      children: [
        GestureDetector(
          onTap: () {
            setState(() {
              step = BookingStep.selectDestination;
            });
          },
          child: Hero(
            tag: 'search',
            child: SelectDestinationWidget(step: step),
          ),
        ),
        GestureDetector(
          onTap: () {
            setState(() {
              step = BookingStep.selectDate;
            });
          },
          child: SelectDateWidget(step: step),
        ),
        (step == BookingStep.selectDate)
          ? const SizedBox()
          : GestureDetector(
              onTap: () {
                setState(() {
                  step = BookingStep.selectGuests;
                });
              },
            ),
      ],
    ),
  ),
),
)

```

```

        });
    },
    child: SelectGuestsWidget(step: step),
),
],
),
),
),
bottomNavigationBar: (step == BookingStep.selectDate)
? null
: BottomAppBar(
padding: const EdgeInsets.symmetric(horizontal: 16.0),
notchMargin: 0,
color: Colors.white,
surfaceTintColor: Colors.white,
child: Row(
mainAxisAlignment: MainAxisAlignment.spaceBetween,
children: [
    TextButton(
onPressed: () {
// if (step == BookingStep.selectDestination) {
//   setState(() {
//     step = BookingStep.selectGuests;
//   });
// } else {
//   setState(() {
//     step = BookingStep.selectDestination;
//   });
// }
},
child: Text(
'Clear all',
style: Theme.of(context).textTheme.bodyLarge!.copyWith(
fontWeight: FontWeight.bold,
decoration: TextDecoration.underline,
),
),
),
FilledButton.icon(
onPressed: () {},
style: FilledButton.styleFrom(
backgroundColor: appRed,
minimumSize: const Size(100, 56.0),
shape: RoundedRectangleBorder(
borderRadius: BorderRadius.circular(8.0),
),
),
icon: const Icon(Icons.search),
label: const Text('Search'),
),
],
),
),

```

```

    ),
  );
}
}

```

## select\_destination

```

import 'package:flutter/material.dart';
import 'package:flutter_animate/flutter_animate.dart';
import 'package:models/models.dart';

class SelectDestinationWidget extends StatelessWidget {
  const SelectDestinationWidget({super.key, required this.step});

  final BookingStep step;

  @override
  Widget build(BuildContext context) {
    final textTheme = Theme.of(context).textTheme;
    return Card(
      elevation: 0.0,
      clipBehavior: Clip.antiAlias,
      child: AnimatedContainer(
        duration: const Duration(milliseconds: 300),
        height: step == BookingStep.selectDestination ? 280 : 60,
        padding: const EdgeInsets.all(16.0),
        child: step == BookingStep.selectDestination
          ? Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                Text(
                  'Where to?',
                  style: textTheme.headlineSmall!.copyWith(
                    fontWeight: FontWeight.bold,
                  ),
                ),
                const SizedBox(height: 16.0),
                TextFormField(
                  decoration: InputDecoration(
                    contentPadding: EdgeInsets.all(16.0),
                    hintText: 'Search destination',
                    prefixIcon: const Icon(Icons.search),
                    hintStyle: textTheme.labelMedium,
                    border: OutlineInputBorder(
                      borderRadius: BorderRadius.circular(16.0),
                    ),
                  ),
                ),
                const SizedBox(height: 16.0),
                SizedBox(
                  height: 128,
                  child: ListView.builder(
                    padding: EdgeInsets.zero,

```

```

scrollDirection: Axis.horizontal,
itemCount: 5,
itemBuilder: (context, index) {
  return Container(
    margin: const EdgeInsets.only(right: 8.0),
    child: Column(
      crossAxisAlignment: CrossAxisAlignment.start,
      children: [
        ClipRRect(
          borderRadius: BorderRadius.circular(16.0),
          child: Image.network(
            'https://picsum.photos/200/300',
            height: 100,
            width: 100,
            fit: BoxFit.cover,
          ),
        ),
        const SizedBox(height: 8),
        Padding(
          padding: const EdgeInsets.only(left: 8.0),
          child: Text(
            'Placeholder',
            style: Theme.of(context)
              .textTheme
              .bodySmall!
              .copyWith(
                fontWeight: FontWeight.bold,
              ),
          ),
        ),
      ],
    ),
  ),
);
},
),
],
),
);
},
),
],
)
.animate(delay: const Duration(milliseconds: 300))
.fadeIn(duration: const Duration(milliseconds: 300))
: Row(
  mainAxisAlignment: MainAxisAlignment.spaceBetween,
  children: [
    Text(
      'When',
      style: textTheme.bodyMedium,
    ),
    Text(
      'I\'m flexible',
      style: textTheme.bodyMedium!.copyWith(
        fontWeight: FontWeight.bold,
      ),
    ),
  ],
),
),

```

```

    ],
  ),
),
);
}
}

```

## Select\_Date

```
import 'package:models/models.dart';
```

```
import '../theme/colors.dart';
```

```
import 'app_calendar.dart';
```

```
class SelectDateWidget extends StatelessWidget {
  const SelectDateWidget({super.key, required this.step});
```

```
  final BookingStep step;
```

```
  @override
```

```
  Widget build(BuildContext context) {
    final size = MediaQuery.sizeOf(context);
    // 112 = app bar height + safe area top padding,
    // 60 = destination selection collapsed height,
    // 32 = top/bottom padding
    // 16 = margin below each card
    var expandedHeight = size.height - 112 - 60 - 32 - 20;
    return Card(
      elevation: 0.0,
      clipBehavior: Clip.antiAlias,
      child: AnimatedContainer(
        height: step == BookingStep.selectDate ? expandedHeight : 60,
        width: double.infinity,
        padding: const EdgeInsets.symmetric(
          vertical: 16.0,
          horizontal: 16.0,
        ),
        duration: const Duration(milliseconds: 300),
        child: step == BookingStep.selectDate
          ? Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                Text(
                  'When\'s your trip?',
                  style:
                    Theme.of(context).textTheme.headlineSmall!.copyWith(
                      fontWeight: FontWeight.bold,
                    ),
                ),
                const SizedBox(height: 16.0),
                const Row(
                  children: [
                    Expanded(child: CalendarOptionsSegmentedButton()),

```

```

    ],
  ),
  const AppCalendar(),
  const Spacer(),
  const Divider(),
  SizedBox(
    height: 48,
    child: ListView(
      scrollDirection: Axis.horizontal,
      children: [
        OutlinedButton(
          onPressed: () {},
          child: const Text('Exact dates'),
        ),
        const SizedBox(width: 8.0),
        OutlinedButton(
          onPressed: () {},
          child: const Text('± 1 day'),
        ),
        const SizedBox(width: 8.0),
        OutlinedButton(
          onPressed: () {},
          child: const Text('± 2 days'),
        ),
      ],
    ),
  ),
  const Divider(),
  Row(
    mainAxisAlignment: MainAxisAlignment.spaceBetween,
    children: [
      TextButton(
        onPressed: () {},
        child: const Text('Skip'),
      ),
      FilledButton(
        onPressed: () {},
        style: FilledButton.styleFrom(
          backgroundColor: appRed,
          minimumSize: const Size(120, 48),
          shape: RoundedRectangleBorder(
            borderRadius: BorderRadius.circular(8.0),
          ),
        ),
        child: const Text('Next'),
      ),
    ],
  ),
),
)
.animate(delay: const Duration(milliseconds: 300))
.fadeIn(duration: const Duration(milliseconds: 300))
: Row(

```



```

        mainAxisAlignment: MainAxisAlignment.spaceBetween,
        children: [
          Text(
            'When',
            style: Theme.of(context).textTheme.bodyMedium,
          ),
          Text(
            'I\'m flexible',
            style: Theme.of(context)
              .textTheme
              .bodyMedium!
              .copyWith(fontWeight: FontWeight.bold),
          ),
        ],
      )),
    );
  }
}

```

Select\_guests

```

import 'package:flutter/material.dart';
import 'package:flutter_animate/flutter_animate.dart';
import 'package:models/models.dart';

```

```

class SelectGuestsWidget extends StatelessWidget {
  const SelectGuestsWidget({
    super.key,
    required this.step,
  });

```

```

  final BookingStep step;

```

```

  @override

```

```

  Widget build(BuildContext context) {
    final textTheme = Theme.of(context).textTheme;

```

```

    return Card(
      elevation: 0.0,
      clipBehavior: Clip.antiAlias,
      child: AnimatedContainer(
        height: step == BookingStep.selectGuests ? 274 : 60,
        width: double.infinity,
        padding: const EdgeInsets.symmetric(
          vertical: 16.0,
          horizontal: 16.0,
        ),
      ),
      duration: const Duration(milliseconds: 300),
      child: step == BookingStep.selectGuests
        ? Column(
            crossAxisAlignment: CrossAxisAlignment.start,
            children: [

```

```

Text(
  'Who\'s coming?',
  style: textTheme.headlineSmall!.copyWith(
    fontWeight: FontWeight.bold,
  ),
),
const SizedBox(height: 16.0),
SizedBox(
  height: 190,
  child: ListView(
    physics: const NeverScrollableScrollPhysics(),
    padding: EdgeInsets.zero,
    children: [
      _buildGuestsQuantitySelector(
        context,
        'Adults',
        'Ages 13 or above',
        () {},
        () {},
        '0',
      ),
      const Divider(),
      _buildGuestsQuantitySelector(
        context,
        'Children',
        'Ages 2-12',
        () {},
        () {},
        '0',
      ),
      const Divider(),
      _buildGuestsQuantitySelector(
        context,
        'Infants',
        'Under 2',
        () {},
        () {},
        '0',
      ),
    ],
  ),
),
).animate(delay: const Duration(milliseconds: 300))
.fadeIn(duration: const Duration(milliseconds: 300))
: Row(
  mainAxisAlignment: MainAxisAlignment.spaceBetween,
  children: [
    Text(
      'Who',
      style: textTheme.bodyMedium,
    ),
  ],
),

```

```

        Text(
          'Add guests',
          style: Theme.of(context)
            .textTheme
            .bodyMedium!
            .copyWith(fontWeight: FontWeight.bold),
        ),
      ],
    ),
  ),
);
}

```

```

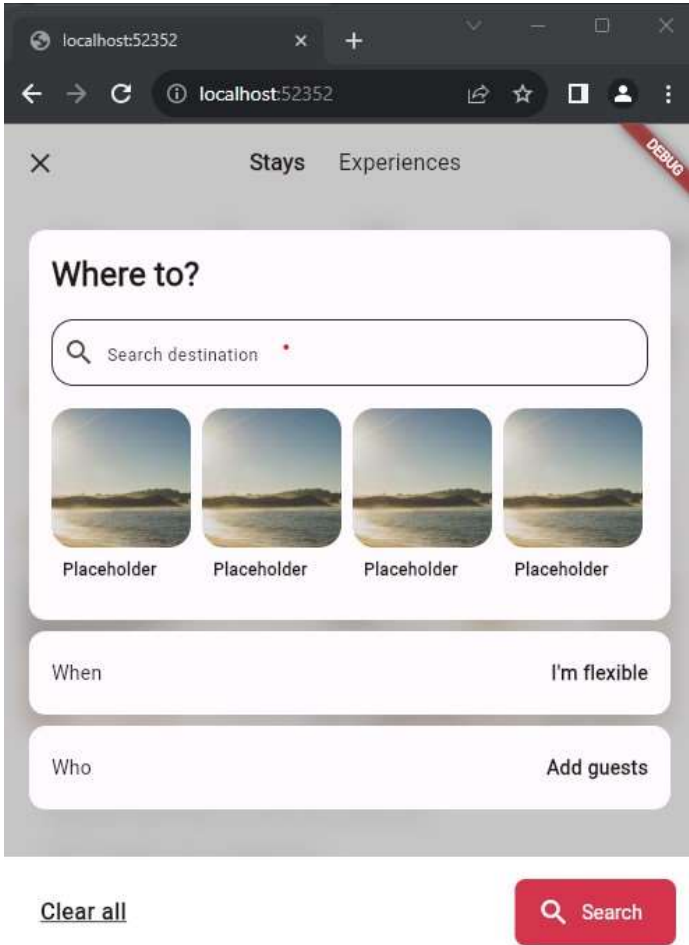
Container _buildGuestsQuantitySelector(
  BuildContext context,
  String title,
  String subtitle,
  VoidCallback onDecrement,
  VoidCallback onIncrement,
  String value,
) {
  final textTheme = Theme.of(context).textTheme;

  return Container(
    margin: const EdgeInsets.only(bottom: 8.0),
    child: Row(
      mainAxisAlignment: MainAxisAlignment.spaceBetween,
      children: [
        Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          children: [
            Text(title, style: textTheme.bodyLarge),
            Text(subtitle, style: textTheme.bodySmall),
          ],
        ),
        Row(
          children: [
            IconButton(
              onPressed: onDecrement,
              icon: const Icon(Icons.remove),
            ),
            Text(
              value,
              style:
                textTheme.bodyMedium!.copyWith(fontWeight: FontWeight.bold),
            ),
            IconButton(
              onPressed: onIncrement,
              icon: const Icon(Icons.add),
            ),
          ],
        ),
      ],
    ),
  ),
];

```

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

### Output:



### Conclusion:

In this experiment, we have successfully imported and inserted image in the flutter and used font style to enter text and successfully created button for it. All concept of image , font are implemented successfully.

