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20p7732

Mobile programming

Milestone 1

Project components overview:

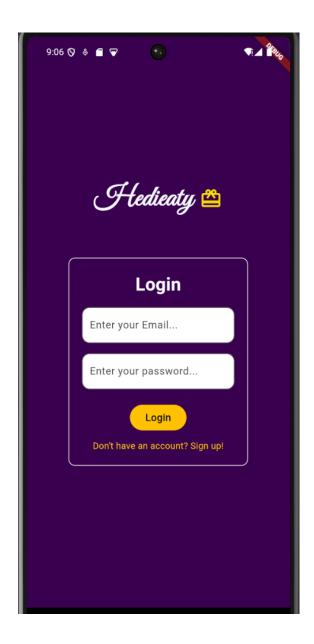
- MaterialApp: Provides the main application structure with defined routes.
- **Scaffold:** Basic layout structure with AppBar, body, and FloatingActionButton.
- Screens and Pages
- LoadingScreen: Simple page with a loading animation.
- LoginPage: User login interface with text fields and a login button.
- SignUpPage: Registration page with fields for user details.
- HomePage: Main navigation hub for the app.
- EventListPage: Lists events with sorting options and provides access to the Gift List.
- **AppBar:** Provides a title, a profile icon, and navigation options.
- CircleAvatar: Displays a profile picture icon in the AppBar.
- **DropdownButton:** Sorting options (by name, category, or status).
- **ListView.builder:** Dynamically generates a list of events.
- Card: Displays each event item in a visually distinct container.
- **ListTile:** Holds the event details (title, subtitle, and trailing actions).
- IconButton: Edit and delete options for each event item.
- FloatingActionButton.extended: Button to add a new event.
- Styling and Theming
- BoxDecoration with LinearGradient: Background styling for gradients.
- TextStyle: Customizes font color and style across various text elements.
- IconThemeData: Configures icon color in the AppBar.
- Colors and Color.fromARGB: Provides color consistency for backgrounds, icons, and other UI elements.

Screenshots from the UI:

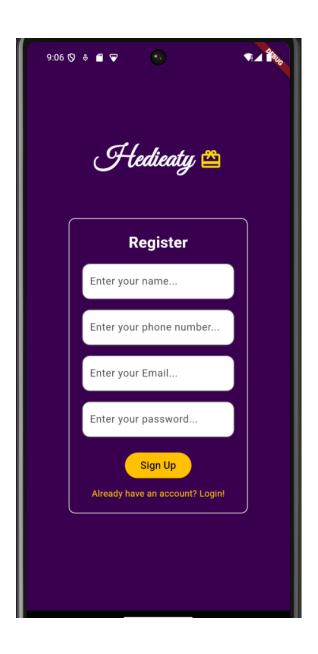
1-Loading Screen:



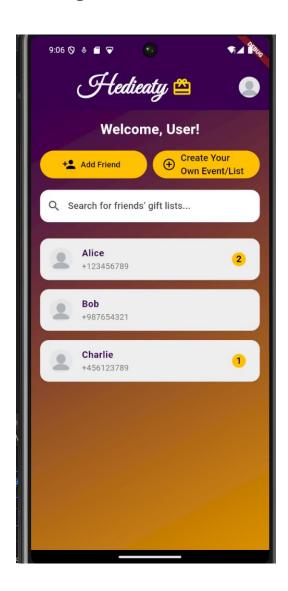
2-Login Page



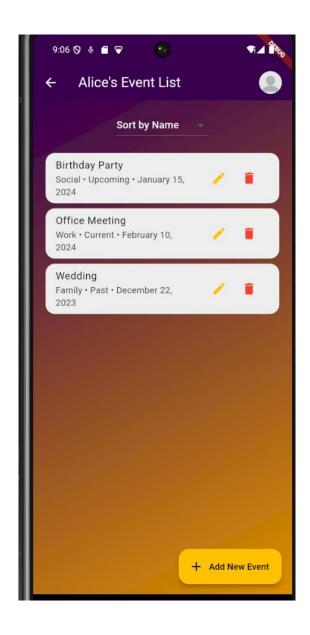
3-Sign up page:



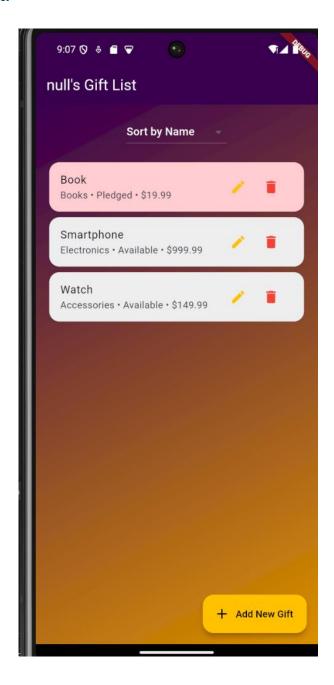
4-HomePage



5-Event List:



6- Gifts List:



Dart Code:

1-Loading_screen.dart:

```
import 'package:flutter/material.dart';
import 'package:flutter_spinkit/flutter_spinkit.dart';
import 'package:hedieaty/title_widget.dart';
class LoadingScreen extends StatefulWidget {
const LoadingScreen({super.key});
@override
State<LoadingScreen> createState() => _LoadingScreenState();
}
class _LoadingScreenState extends State<LoadingScreen> {
@override
void initState() {
  super.initState();
 // Navigate to HomeScreen after 3 seconds
  Future.delayed(const Duration(seconds: 3), () {
  Navigator.pushReplacementNamed(context, '/login');
 });
}
@override
Widget build(BuildContext context) {
  return const Scaffold(
  backgroundColor: Color.fromARGB(255, 58, 2, 80),
  body: Center(
```

```
child: Column(
mainAxisAlignment: MainAxisAlignment.center,
children: [
 TitleWidget(),
 SizedBox(height: 20),
 Text(
  "Gifting made easy!",
   style: TextStyle(
   fontFamily: 'arima',
   fontSize: 18.0,
   color: Colors.white,
   fontStyle: FontStyle.italic,
  ),
 ),
 SizedBox(height: 50),
 SpinKitSpinningLines(
  color: Colors.amber,
  size: 50.0,
 ),
 SizedBox(height: 20),
 Text(
  'Loading...',
  style: TextStyle(
   fontSize: 18.0,
   color: Colors.white,
  ),
 ),
],
),
```

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

```
2-Main.dart:
import 'package:flutter/material.dart';
import 'package:hedieaty/loading_screen.dart';
import 'package:hedieaty/sign_up.dart';
import 'package:hedieaty/login.dart';
import 'package:hedieaty/home_page.dart';
import 'package:hedieaty/event_list.dart';
import 'package:hedieaty/gift_list.dart';
void main() {
runApp(MaterialApp(
  initialRoute: '/loading',
  routes: {
   '/loading': (context) => const LoadingScreen(),
   '/login': (context) => const LoginPage(),
   '/signup': (context) => const SignUpPage(),
   '/home': (context) => const HomePage(),
   '/eventListPage': (context) => const EventListPage(),
   '/giftListPage': (context) => const GiftListPage(),
 },
));
}
```

3-Login.dart:

```
import 'package:flutter/material.dart';
import 'package:hedieaty/title_widget.dart';
class LoginPage extends StatefulWidget {
const LoginPage({super.key});
@override
State<LoginPage> createState() => _LoginPageState();
}
class _LoginPageState extends State<LoginPage> {
final GlobalKey<FormState> loginKey = GlobalKey();
final TextEditingController emailController = TextEditingController();
final TextEditingController passwordController = TextEditingController();
@override
Widget build(BuildContext context) {
  return Scaffold(
  backgroundColor: const Color.fromARGB(255, 58, 2, 80),
  body: Center(
   child: Column(
    mainAxisAlignment: MainAxisAlignment.center,
    children: [
     const TitleWidget(),
     const SizedBox(height: 60),
```

```
Container(
width: 280,
 padding: const EdgeInsets.all(20.0),
decoration: BoxDecoration(
 color: const Color.fromARGB(255, 58, 2, 80),
 border: Border.all(color: Colors.white),
 borderRadius: BorderRadius.circular(10.0),
),
 child: Form(
  key: loginKey,
  child: Column(
   mainAxisSize: MainAxisSize.min,
   children: [
   const Text(
    "Login",
    style: TextStyle(
     fontSize: 28,
     fontWeight: FontWeight.bold,
     color: Colors.white,
    ),
   ),
   const SizedBox(height: 16.0),
   TextFormField(
    controller: emailController,
    decoration: const InputDecoration(
     labelText: 'Enter your Email...',
     border: OutlineInputBorder(
```

```
borderRadius: BorderRadius.all(Radius.circular(12.0)),
 ),
 filled: true,
 fillColor: Colors.white,
),
keyboardType: TextInputType.emailAddress,
validator: (value) {
 if (value == null || value.isEmpty) {
  return 'Please enter your email';
 }
 return null;
},
),
const SizedBox(height: 16.0),
TextFormField(
controller: passwordController,
decoration: const InputDecoration(
 labelText: 'Enter your password...',
 border: OutlineInputBorder(
  borderRadius: BorderRadius.all(Radius.circular(12.0)),
 ),
 hintText: 'Enter your password',
 hintStyle: TextStyle(color: Color.fromARGB(255, 200, 200, 200)),
 filled: true,
 fillColor: Colors.white,
),
obscureText: true,
```

```
validator: (value) {
 if (value == null || value.isEmpty) {
  return 'Please enter your password';
 }
 return null;
},
),
const SizedBox(height: 20.0),
ElevatedButton(
style: ElevatedButton.styleFrom(
 backgroundColor: Colors.amber,
 foregroundColor: Colors.black,
),
onPressed: () {
 if (loginKey.currentState?.validate() ?? false) {
  Navigator.pushReplacementNamed(context, '/home');
 }
},
child: const Text('Login', style: TextStyle(fontSize: 16),),
),
const SizedBox(height: 10),
GestureDetector(
onTap: () {
 Navigator.pushReplacementNamed(context, '/signup');
},
child: const Text(
 "Don't have an account? Sign up!",
```

```
style: TextStyle(
            color: Colors.amber,
            decoration: TextDecoration.underline,
           ),
          ),
         ),
        ],
       ),
      ),
     ),
    ],
   ),
  ),
 );
}
}
4-Sign_up.dart:
import 'package:flutter/material.dart';
import 'package:hedieaty/title_widget.dart';
class SignUpPage extends StatefulWidget {
const SignUpPage({super.key});
@override
State<SignUpPage> createState() => _SignUpPageState();
}
class _SignUpPageState extends State<SignUpPage> {
```

```
final GlobalKey<FormState> signUpKey = GlobalKey();
final TextEditingController nameController = TextEditingController();
final TextEditingController phoneController = TextEditingController();
final TextEditingController emailController = TextEditingController();
final TextEditingController passwordController = TextEditingController();
@override
Widget build(BuildContext context) {
 return Scaffold(
  backgroundColor: const Color.fromARGB(255, 58, 2, 80),
  body: Center(
   child: Column(
   mainAxisAlignment: MainAxisAlignment.center,
   children: [
    const TitleWidget(),
    const SizedBox(height: 60),
    Container(
     width: 280,
     padding: const EdgeInsets.all(20.0),
     decoration: BoxDecoration(
      color: const Color.fromARGB(255, 58, 2, 80),
      border: Border.all(color: Colors.white),
      borderRadius: BorderRadius.circular(10.0),
     ),
     child: Form(
      key: signUpKey,
      child: Column(
```

```
mainAxisSize: MainAxisSize.min,
children: [
const Text(
 "Register",
 style: TextStyle(
  fontSize: 24,
  fontWeight: FontWeight.bold,
  color: Colors.white,
 ),
),
const SizedBox(height: 16.0),
TextFormField(
 controller: nameController,
 decoration: const InputDecoration(
  labelText: 'Enter your name...',
  border: OutlineInputBorder(
   borderRadius: BorderRadius.all(Radius.circular(12.0)),
  ),
  hintText: 'Enter your name',
  hintStyle: TextStyle(color: Colors.grey),
  filled: true,
  fillColor: Colors.white,
 ),
 validator: (value) {
  if (value == null || value.isEmpty) {
   return 'Please enter your name';
  }
```

```
return null;
},
),
const SizedBox(height: 16.0),
TextFormField(
controller: phoneController,
decoration: const InputDecoration(
 labelText: 'Enter your phone number...',
 border: OutlineInputBorder(
  borderRadius: BorderRadius.all(Radius.circular(12.0)),
 ),
 hintText: 'Enter your phone number',
 hintStyle: TextStyle(color: Colors.grey),
 filled: true,
 fillColor: Colors.white,
),
keyboardType: TextInputType.phone,
validator: (value) {
 if (value == null || value.isEmpty) {
  return 'Please enter your phone number';
 }
 return null;
},
),
const SizedBox(height: 16.0),
TextFormField(
controller: emailController,
```

```
decoration: const InputDecoration(
 labelText: 'Enter your Email...',
 border: OutlineInputBorder(
  borderRadius: BorderRadius.all(Radius.circular(12.0)),
 ),
 hintText: 'Enter your email',
 hintStyle: TextStyle(color: Colors.grey),
 filled: true,
 fillColor: Colors.white,
),
keyboardType: TextInputType.emailAddress,
validator: (value) {
 if (value == null || value.isEmpty) {
  return 'Please enter your email';
 }
 return null;
},
),
const SizedBox(height: 16.0),
TextFormField(
controller: passwordController,
decoration: const InputDecoration(
 labelText: 'Enter your password...',
 border: OutlineInputBorder(
  borderRadius: BorderRadius.all(Radius.circular(12.0)),
 ),
 hintText: 'Enter your password',
```

```
hintStyle: TextStyle(color: Colors.grey),
 filled: true,
 fillColor: Colors.white,
),
obscureText: true,
validator: (value) {
 if (value == null || value.isEmpty) {
  return 'Please enter your password';
 }
 return null;
},
),
const SizedBox(height: 20.0),
ElevatedButton(
style: ElevatedButton.styleFrom(
 backgroundColor: Colors.amber,
 foregroundColor: Colors.black,
),
onPressed: () {
 if (signUpKey.currentState?.validate() ?? false) {
  Navigator.pushReplacementNamed(context, '/home');
 }
},
child: const Text('Sign Up', style: TextStyle(fontSize: 16),),
),
const SizedBox(height: 10),
GestureDetector(
```

```
onTap: () {
           Navigator.pushReplacementNamed(context, '/login');
          },
          child: const Text(
           "Already have an account? Login!",
           style: TextStyle(
            color: Colors.amber,
            decoration: TextDecoration.underline,
           ),
          ),
         ),
        ],
       ),
      ),
     ),
    ],
   ),
  ),
 );
}
}
5-Title_widget.dart:
import 'package:flutter/material.dart';
class TitleWidget extends StatelessWidget {
const TitleWidget({super.key});
```

```
@override
Widget build(Object context) {
  return const Row(
   mainAxisAlignment: MainAxisAlignment.center,
   children: [
   Text(
    'Hedieaty',
    style: TextStyle(
     fontSize: 45.0,
     color: Color(0xFFF8F8FF),
     fontWeight: FontWeight.bold,
     fontFamily: "gvibes",
    ),
   ),
   SizedBox(width: 10),
   Icon(
    Icons.card_giftcard,
    color: Color.fromARGB(255, 248, 220, 9),
    size: 35.0,
   ),
  ],
 );
}
}
6-Homepage.dart:
import 'package:flutter/material.dart';
import 'title_widget.dart';
import 'package:hedieaty/event_list.dart';
```

```
class HomePage extends StatefulWidget {
const HomePage({super.key});
@override
State<HomePage> createState() => _HomePageState();
}
class _HomePageState extends State<HomePage>{
final List<Map<String, dynamic>> friends = [
 {
   'name': 'Alice',
   'profilePic': 'assets/images/profile_icon.png',
   'phone': '+123456789',
   'events': 2,
 },
 {
   'name': 'Bob',
   'profilePic': 'assets/images/profile_icon.png',
   'phone': '+987654321',
   'events': 0,
 },
   'name': 'Charlie',
   'profilePic': 'assets/images/profile_icon.png',
   'phone': '+456123789',
   'events': 1,
 }
];
```

@override

```
Widget build(BuildContext context) {
 return Scaffold(
  appBar: AppBar(
  toolbarHeight: 80,
   backgroundColor: const Color.fromARGB(255, 58, 2, 80),
   title: const TitleWidget(),
   actions: [
   GestureDetector(
    onTap: () {
     Navigator.pushNamed(context, '/profile');
    },
    child: const Padding(
     padding: EdgeInsets.only(right: 16.0),
     child: CircleAvatar(
      backgroundImage: AssetImage('assets/images/profile_icon.png'),
      radius: 18.0,
     ),
    ),
   ),
  1,
 ),
  body: Container(
   decoration: const BoxDecoration(
   gradient: LinearGradient(
    colors:[
     Color.fromARGB(255, 58, 2, 80),
     Color.fromARGB(255, 219, 144, 5),
```

```
],
 begin: Alignment.topLeft,
 end: Alignment.bottomRight,
),
),
padding: const EdgeInsets.all(16.0),
child: Column(
crossAxisAlignment: CrossAxisAlignment.center,
children: [
 const Text(
  'Welcome, User!',
  style: TextStyle(
   fontSize: 24,
   fontWeight: FontWeight.bold,
   color: Colors.white,
  ),
 ),
 const SizedBox(height: 20),
 Row(
  children: [
   Expanded(
    child: ElevatedButton.icon(
     style: ElevatedButton.styleFrom(
      backgroundColor: Colors.amber,
      foregroundColor: Colors.black,
      minimumSize: const Size.fromHeight(48),
     ),
     icon: const lcon(lcons.person_add),
     label: const Text("Add Friend"),
```

```
onPressed: () {
   },
  ),
 ),
  const SizedBox(width: 10),
  Expanded(
   child: ElevatedButton.icon(
   style: ElevatedButton.styleFrom(
    backgroundColor: Colors.amber,
    foregroundColor: Colors.black,
    minimumSize: const Size.fromHeight(48),
   ),
   icon: const lcon(lcons.add_circle_outline),
   label: const Text(
    'Create Your Own Event/List',
    style: TextStyle(fontSize: 16),
   ),
   onPressed: () {
    Navigator.pushNamed(context, '/createEvent');
   },
  ),
 ),
],
),
const SizedBox(height: 20),
TextField(
decoration: InputDecoration(
 hintText: 'Search for friends' gift lists...',
  prefixIcon: const Icon(Icons.search),
```

```
filled: true,
 fillColor: Colors.white,
  border: OutlineInputBorder(
   borderRadius: BorderRadius.circular(15.0),
  borderSide: BorderSide.none,
 ),
),
onChanged: (value) {},
),
const SizedBox(height: 20),
Expanded(
 child: ListView.builder(
 itemCount: friends.length,
  itemBuilder: (context, index) {
  final friend = friends[index];
   return Card(
   color: Colors.grey[200],
    shape: RoundedRectangleBorder(
    borderRadius: BorderRadius.circular(15.0),
   ),
    margin: const EdgeInsets.symmetric(vertical: 8.0),
    child: ListTile(
    leading: CircleAvatar(
     backgroundColor: Colors.white,
     backgroundImage: AssetImage(friend['profilePic']),
    ),
    title: Text(
     friend['name'],
     style: const TextStyle(
```

```
color: Color.fromARGB(255, 58, 2, 80),
 fontWeight: FontWeight.bold,
),
),
subtitle: Text(
friend['phone'],
 style: const TextStyle(color: Colors.black54),
),
trailing: friend['events'] > 0
 ? CircleAvatar(
    radius: 12,
    backgroundColor: Colors.amber,
    child: Text(
    friend['events'].toString(),
     style: const TextStyle(
      color: Colors.black,
     fontWeight: FontWeight.bold,
     ),
   ),
  )
 : null,
onTap: () {
 Navigator.push(
 context,
  MaterialPageRoute(
  builder: (context) =>
     EventListPage(friendName: friend['name']),
 ),
);
```

```
},
         ),
        );
       },
      ),
     ),
    ],
   ),
  ),
 );
}
}
7-event_list.dart:
import 'package:flutter/material.dart';
import 'package:intl/intl.dart';
class EventListPage extends StatefulWidget {
final String? friendName;
const EventListPage({super.key, this.friendName});
@override
State<EventListPage> createState() => _EventListPageState();
}
class _EventListPageState extends State<EventListPage>{
List<Map<String, dynamic>> events = [
```

```
{
  'name': 'Birthday Party',
  'category': 'Social',
  'status': 'Upcoming',
  'date': DateTime(2024, 1, 15),
 },
 {
  'name': 'Wedding',
  'category': 'Family',
  'status': 'Past',
  'date': DateTime(2023, 12, 22),
 },
 {
  'name': 'Office Meeting',
  'category': 'Work',
  'status': 'Current',
  'date': DateTime(2024, 2, 10),
 }
];
String sortBy = 'name';
void addEvent() {
}
void editEvent(int index) {
}
```

```
void deleteEvent(int index) {
 setState(() {
 events.removeAt(index);
});
}
@override
Widget build(BuildContext context) {
 events.sort((a, b) => a[sortBy].compareTo(b[sortBy]));
 return Scaffold(
  appBar: AppBar(
   title: Text(
   "${widget.friendName}'s Event List",
   style: const TextStyle(color: Colors.white),
   ),
   backgroundColor: const Color.fromARGB(255, 58, 2, 80),
   iconTheme: const IconThemeData(color: Colors.white),
   actions: [
   GestureDetector(
    onTap: () {
     Navigator.pushNamed(
       context, '/profile');
    },
    child: const Padding(
     padding: EdgeInsets.only(right: 16.0),
```

```
child: CircleAvatar(
     backgroundImage: AssetImage('assets/images/profile_icon.png'),
     radius: 18.0,
   ),
  ),
  ),
1,
),
body: Container(
 decoration: const BoxDecoration(
  gradient: LinearGradient(
  colors:[
   Color.fromARGB(255, 58, 2, 80),
   Color.fromARGB(255, 219, 144, 5),
  ],
  begin: Alignment.topLeft,
  end: Alignment.bottomRight,
  ),
 ),
 padding: const EdgeInsets.all(16.0),
 child: Column(
  children: [
  DropdownButton<String>(
   value: sortBy,
   dropdownColor: const Color.fromARGB(255, 58, 2, 80),
    onChanged: (value) {
    setState(() {
```

```
sortBy = value!;
 });
},
 items: const [
  DropdownMenuItem(
  value: 'name',
   child: Text(
   'Sort by Name',
   style: TextStyle(color: Colors.white),
  ),
 ),
  DropdownMenuItem(
  value: 'category',
   child: Text(
   'Sort by Category',
   style: TextStyle(color: Colors.white),
  ),
 ),
  DropdownMenuItem(
  value: 'status',
  child: Text(
   'Sort by Status',
   style: TextStyle(color: Colors.white),
  ),
 ),
],
),
```

```
const SizedBox(height: 16.0),
Expanded(
 child: ListView.builder(
 itemCount: events.length,
  itemBuilder: (context, index) {
  final event = events[index];
  String formattedDate =
    DateFormat('MMMM dd, yyyy').format(event['date']);
   return Card(
   color: Colors.grey[200],
    shape: RoundedRectangleBorder(
    borderRadius: BorderRadius.circular(15.0),
   ),
    child: ListTile(
    title: Text(event['name']),
    subtitle: Text(
     '${event['category']} • ${event['status']} • $formattedDate',
    ),
    trailing: Row(
     mainAxisSize: MainAxisSize.min,
     children: [
      IconButton(
       icon: const Icon(Icons.edit, color: Colors.amber),
       onPressed: () => editEvent(index),
      ),
      IconButton(
       icon: const lcon(lcons.delete, color: Colors.red),
```

```
onPressed: () => deleteEvent(index),
            ),
           ],
          ),
         ),
        );
       },
      ),
     ),
    ],
   ),
  ),
  floating Action Button: Floating Action Button. extended (\\
   backgroundColor: Colors.amber,
    foregroundColor: Colors.black,
   icon: const lcon(lcons.add),
    label: const Text('Add New Event'),
    onPressed: addEvent,
  ),
 );
}
8-Gift_list.dart:
import 'package:flutter/material.dart';
class GiftListPage extends StatefulWidget {
final String? eventName;
```

}

```
const GiftListPage({super.key, this.eventName});
@override
State<GiftListPage> createState() => _GiftListPageState();
}
class _GiftListPageState extends State<GiftListPage> {
List<Map<String, dynamic>> gifts = [
 {
   'name': 'Smartphone',
   'category': 'Electronics',
   'status': 'Available',
   'price': 999.99,
  'pledged': false,
 },
 {
   'name': 'Book',
   'category': 'Books',
   'status': 'Pledged',
   'price': 19.99,
   'pledged': true,
 },
 {
   'name': 'Watch',
   'category': 'Accessories',
   'status': 'Available',
```

```
'price': 149.99,
  'pledged': false,
},
];
String sortBy = 'name';
void addGift() {
}
void editGift(int index) {
}
void deleteGift(int index) {
 setState(() {
 gifts.removeAt(index);
});
}
@override
Widget build(BuildContext context) {
gifts.sort((a, b) => a[sortBy].compareTo(b[sortBy]));
 return Scaffold(
  appBar: AppBar(
   title: Text(
    "${widget.eventName}'s Gift List",
```

```
style: const TextStyle(color: Colors.white),
 ),
 backgroundColor: const Color.fromARGB(255, 58, 2, 80),
 iconTheme: const IconThemeData(color: Colors.white),
),
body: Container(
 decoration: const BoxDecoration(
  gradient: LinearGradient(
  colors: [
   Color.fromARGB(255, 58, 2, 80),
   Color.fromARGB(255, 219, 144, 5),
  ],
  begin: Alignment.topLeft,
  end: Alignment.bottomRight,
  ),
 ),
 padding: const EdgeInsets.all(16.0),
 child: Column(
  children: [
  DropdownButton<String>(
   value: sortBy,
   dropdownColor: const Color.fromARGB(255, 58, 2, 80),
    onChanged: (value) {
    setState(() {
     sortBy = value!;
    });
   },
```

```
items: const [
  DropdownMenuItem(
  value: 'name',
  child: Text(
   'Sort by Name',
   style: TextStyle(color: Colors.white),
  ),
 ),
  DropdownMenuItem(
  value: 'category',
  child: Text(
   'Sort by Category',
   style: TextStyle(color: Colors.white),
  ),
 ),
  DropdownMenuItem(
  value: 'status',
   child: Text(
   'Sort by Status',
   style: TextStyle(color: Colors.white),
  ),
 ),
],
),
const SizedBox(height: 16.0),
Expanded(
child: ListView.builder(
```

```
itemCount: gifts.length,
itemBuilder: (context, index) {
final gift = gifts[index];
 return Card(
 color: gift['pledged']? Colors.red[100]: Colors.grey[200],
 shape: RoundedRectangleBorder(
  borderRadius: BorderRadius.circular(15.0),
 ),
 child: ListTile(
  title: Text(gift['name']),
  subtitle: Text(
   '${gift['category']} • ${gift['status']} • \$${gift['price'].toStringAsFixed(2)}',
  ),
  trailing: Row(
   mainAxisSize: MainAxisSize.min,
   children: [
    IconButton(
     icon: const Icon(Icons.edit, color: Colors.amber),
     onPressed: gift['pledged']? null: () => editGift(index),
    ),
    IconButton(
     icon: const Icon(Icons.delete, color: Colors.red),
     onPressed: gift['pledged'] ? null : () => deleteGift(index),
    ),
   ],
  ),
 ),
```

```
);
      },
     ),
    ),
   ],
  ),
 ),
 floating Action Button: Floating Action Button. extended (\\
  backgroundColor: Colors.amber,
  foregroundColor: Colors.black,
  icon: const lcon(lcons.add),
  label: const Text('Add New Gift'),
  onPressed: addGift,
 ),
);
}
```

}