



Bharatiya Vidya Bhavan's
SARDAR PATEL INSTITUTE OF TECHNOLOGY
 (Autonomous Institute Affiliated to University of Mumbai)
 Munshi Nagar, Andheri (W), Mumbai – 400 058.
 Department of Computer Science and Engineering

Experiment	Lab 2
Aim	Create Dynamic Registration form
Objective	To Create Dynamic Registration form using UI components and Scaffold elements.
Name	Sanjana Pandurang Palkar
UCID	2024510040
Class	FY MCA
Batch	D
Date of Submission	02-02-25

Technology used	VS Code,Flutter,Dart
Task	Create Dynamic Webpage for submitting review for movie app along with giving ratings for the same. The webpage should include, name, surname, date of birth, address, email id, phone number, gender, review and ratings for the movie in terms of stars/smiley etc. include validation. The information should be fetched and displayed on the next page for viewing it. Use snackbar, alert dialog box, try adding fan button (static) etc.
Code with proper label	<p>Home_screen.dart</p> <pre>import 'package:flutter/material.dart'; import 'movie_details_screen.dart'; class HomeScreen extends StatelessWidget { final List<Map<String, dynamic>> movies = [{ "title": "Beauty and Beast", "rating": 9.0, "image": "assets/img4.jpeg", "description": " A magical love story where Belle, a young woman, is taken prisoner by a Beast in his castle. Despite her fears, she befriends the castle's enchanted staff and learns to see beyond the Beast's exterior, recognizing the kind heart and soul he possesses.", "language": "English", "actors": "Emma Watson, Dan Stevens", "director": "Bill Condon", "songs": "Beauty and the Beast, Be Our Guest", "genre": "Fantasy, Romance" }, { "title": "Mufasa", "rating": 8.5, "image": "assets/img5.jpeg", "description": " A gripping story of Mufasa's early life, exploring his rise to power in the Pride Lands and the struggles he faced as he learned to be a ruler.", "language": "English", "actors": "Donald Glover, Beyoncé", "director": "Jon Favreau", "songs": "Circle of Life, Hakuna Matata", "genre": "Adventure, Animation, Family" },]</pre>



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```
{  
    "title": "Beautiful Disaster",  
    "rating": 8.7,  
    "image": "assets/img6.jpeg",  
    "description":  
        "A story about two college students, Abby and Travis, who find  
        themselves entangled in a tumultuous romance that pushes the limits of their  
        emotions and challenges their desires.",  
        "language": "English",  
        "actors": "Dylan Sprouse, Virginia Gardner",  
        "director": "Roger Kumble",  
        "songs": "Heartbeats, Wild Love",  
        "genre": "Romance, Drama"  
        "title": "Murarbaji",  
        "rating": 8.7,  
        "image": "assets/img7.jpeg",  
        "description":  
            "Set in the underworld, this intense drama follows Rocky as he rises to  
            power by confronting and defeating dangerous enemies in the criminal world.",  
            "language": "Marathi",  
            "actors": "Nana Patekar, Rajesh Shringarpure",  
            "director": "Nagraj Manjule",  
            "songs": "Jingalala, Murarbaji Theme",  
            "genre": "Action, Thriller"  
        "title": "Chandramukhi Marathi",  
        "rating": 8.7,  
        "image": "assets/img8.jpeg",  
        "description":  
            "A suspenseful tale where a retired jailer must protect his family from a  
            powerful and vengeful gangster while uncovering dark secrets from his past.",  
            "language": "Marathi",  
            "actors": "Sachin Khedekar, Medha Manjrekar",  
            "director": "Vijay Rane",  
            "songs": "Chandramukhi, Khel Khel",  
            "genre": "Crime, Thriller"  
        "title": "Benwad",  
        "rating": 8.7,  
        "image": "assets/img9.jpeg",  
        "description":  
            "A suspense drama where an unsuspecting hero embarks on a journey to  
            confront enemies that have personal ties to him. It becomes a battle of survival  
            and redemption.",  
            "language": "Marathi",  
            "actors": "Pushkar Shrotri, Mukta Barve",  
            "director": "Sumitra Bhave",  
            "songs": "Benwad Theme, Chupke Chupke",  
            "genre": "Drama, Thriller"  
        "title": "Double Seat",  
        "rating": 8.7,  
        "image": "assets/img10.jpeg",  
        "description":
```



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"A story of two individuals caught between the expectations of society and their desire to live life on their own terms, while struggling with love, dreams, and challenges.",

 "language": "Marathi",
 "actors": "Swapanil Joshi, Medha Manjrekar",
 "director": "Sandeept Sawant",
 "songs": "Ghar Ghar Kahi, Double Seat Title",
 "genre": "Romance, Drama"
},
{
 "title": "Elizabeth Ekadashi",
 "rating": 7.8,
 "image": "assets/img11.jpeg",
 "description":

 "A retired jailer must protect his family from a dangerous gang while trying to protect the secrets of his past life that have come back to haunt him.",

 "language": "Marathi",
 "actors": "Subodh Bhave, Vandana Gupte",
 "director": "Sandeept Sawant",
 "songs": "Elizabeth, Saheli",
 "genre": "Drama, Crime"
},
{
 "title": "Moana 2",
 "rating": 8.2,
 "image": "assets/img12.jpeg",
 "description":

 "In this continuation of the story, Moana faces new challenges as she embarks on an adventure to save her island from an impending disaster, while discovering her true destiny.",

 "language": "English",
 "actors": "Auli'i Cravalho, Dwayne Johnson",
 "director": "Ron Clements",
 "songs": "How Far I'll Go, You're Welcome",
 "genre": "Animation, Adventure, Family"
},
{
 "title": "Elemental",
 "rating": 8.2,
 "image": "assets/img13.jpeg",
 "description":

 "In a world where everything is made of elements, a fire girl and a water boy navigate the complexities of their contrasting worlds to solve a city crisis and discover new bonds.",

 "language": "English",
 "actors": "Leah Lewis, Mamoudou Athie",
 "director": "Peter Sohn",
 "songs": "Elemental Flow, Fire and Water",
 "genre": "Animation, Fantasy"
},
{
 "title": "Shang-chi",
 "rating": 8.2,
 "image": "assets/img14.jpeg",
 "description":

 "Shang-Chi, a skilled martial artist, must confront the past he thought he left behind when he's drawn into a web of intrigue involving the mysterious Ten Rings organization.",

 "language": "English",



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```
"actors": "Simu Liu, Awkwafina",
"director": "Destin Daniel Cretton",
"songs": "Shang-Chi Theme, Legends Rise",
"genre": "Action, Adventure, Fantasy"
},
{
"title": "Thandel",
"rating": 8.2,
"image": "assets/img15.jpeg",
"description":
    "A young warrior named Thandel fights against a ruthless empire to save his kingdom and restore peace, while overcoming betrayals and learning what it means to be a leader.",
"language": "Hindi",
"actors": "Ajay Devgn, Parineeti Chopra",
"director": "Rohit Shetty",
"songs": "Thandel Anthem, Lead the Way",
"genre": "Action, Drama"
},
{
"title": "Smile",
"rating": 8.2,
"image": "assets/img16.jpeg",
"description":
    "A psychological thriller that follows a woman whose life begins to unravel after a series of disturbing and unexplained occurrences, forcing her to face her inner demons.",
"language": "English",
"actors": "Sosie Bacon, Kyle Gallner",
"director": "Parker Finn",
"songs": "Smile Theme, The Haunting Melody",
"genre": "Horror, Thriller"
},
{
"title": "Jara Hatke Jara Bachke",
"rating": 8.2,
"image": "assets/img1.jpeg",
"description":
    "A comedic drama about a married couple who have different ideas about life and love, exploring the humorous conflicts they face in their relationship.",
"language": "Hindi",
"actors": "Vicky Kaushal, Sara Ali Khan",
"director": "Anand L. Rai",
"songs": "Jara Hatke, Saath Saath",
"genre": "Comedy, Drama"
},
{
"title": "Aadesh",
"rating": 8.2,
"image": "assets/img2.jpeg",
"description":
    "A thriller that tells the story of a man who finds himself drawn into a world of crime and danger when he seeks justice for a loved one.",
"language": "Marathi",
"actors": "Nikhil Vaidya, Aishwarya Narkar",
"director": "Sandeep Jadhav",
"songs": "Aadesh Title, Tumhi Hi Aadesh",
"genre": "Action, Thriller"
},
```



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```
{  
    "title": "Vedha",  
    "rating": 7.9,  
    "image": "assets/img3.jpeg",  
    "description":  
        "An alcoholic professor must confront a ruthless gangster who threatens  
        everything he holds dear, including his career and loved ones.",  
        "language": "Hindi",  
        "actors": "Hrithik Roshan, Saif Ali Khan",  
        "director": "Pushkar-Gayathri",  
        "songs": "Vedha Anthem, Unforgiven",  
        "genre": "Action, Drama, Thriller"  
};  
  
@override  
Widget build(BuildContext context) {  
    return Scaffold(  

```



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

Main.dart

```
import 'package:flutter/material.dart';
import 'home_screen.dart';

void main() {
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  @override
  Widget build(BuildContext context) {
    return MaterialApp(
      debugShowCheckedModeBanner: false,
      theme: ThemeData.dark(), // Enable dark mode
      home: HomeScreen(),
    );
  }
}
```

Movie_details.dart

```
import 'package:flutter/material.dart';
import 'review_form_screen.dart';

class MovieDetailsScreen extends StatefulWidget {
  final Map<String, dynamic> movie;

  MovieDetailsScreen({required this.movie});

  @override
  _MovieDetailsScreenState createState() => _MovieDetailsScreenState();
}

class _MovieDetailsScreenState extends State<MovieDetailsScreen> {
  bool isFan = false;

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      backgroundColor: Colors.black,
      appBar: AppBar(
        title: Text(widget.movie["title"]),
        backgroundColor: Colors.black,
      ),
      body: Padding(
        padding: EdgeInsets.all(16.0),
        child: SingleChildScrollView(
          // To make sure the content can scroll
        ),
      ),
    );
  }
}
```



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```
child: Column(  
  crossAxisAlignment: CrossAxisAlignment.start,  
  children: [  
    // Movie Image  
    Image.asset(widget.movie["image"],  
      height: 250, fit: BoxFit.cover),  
    SizedBox(height: 10),  
  
    // Movie Title  
    Text(  
      widget.movie["title"],  
      style: TextStyle(  
        fontSize: 22,  
        fontWeight: FontWeight.bold,  
        color: Colors.white),  
    ),  
    SizedBox(height: 5),  
  
    // Movie Rating  
    Text("⭐ ${widget.movie["rating"]}",  
      style: TextStyle(color: Colors.white70)),  
    SizedBox(height: 10),  
  
    // Movie Description  
    Text(  
      widget.movie["description"],  
      style: TextStyle(color: Colors.white),  
    ),  
    SizedBox(height: 20),  
  
    // Movie Genre  
    Text(  
      "Genre: ${widget.movie["genre"]}",  
      style: TextStyle(color: Colors.white),  
    ),  
    SizedBox(height: 5),  
  
    // Movie Language  
    Text(  
      "Language: ${widget.movie["language"]}",  
      style: TextStyle(color: Colors.white),  
    ),  
    SizedBox(height: 5),  
  
    // Movie Actors  
    Text(  
      "Actors: ${widget.movie["actors"]}",  
      style: TextStyle(color: Colors.white),  
    ),  
    SizedBox(height: 5),  
  
    // Movie Director  
    Text(  
      "Director: ${widget.movie["director"]}",  
      style: TextStyle(color: Colors.white),  
    ),  
    SizedBox(height: 5),  
  
    // Movie Songs
```



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```
Text(  
    "Songs: ${widget.movie['songs']}",  
    style: TextStyle(color: Colors.white),  
,  
    SizedBox(height: 20),  
  
    // Fan Button  
    ElevatedButton(  
        onPressed: () {  
            setState(() {  
                isFan = !isFan; // Toggle the fan status  
            });  
        },  
        child: Text(isFan ? "⭐ Unfavorite" : "⭐ Fan"),  
        style: ElevatedButton.styleFrom(  
            backgroundColor: isFan ? Colors.grey : Colors.red),  
,  
        SizedBox(height: 20),  
  
    // Submit Review Button  
    ElevatedButton(  
        onPressed: () {  
            Navigator.push(  
                context,  
                MaterialPageRoute(  
                    builder: (context) =>  
                        ReviewFormScreen(movie: widget.movie)),  
                );  
            },  
        child: Text("Submit Review"),  
        ),  
        ],  
        ),  
        ),  
        );  
    }  
}
```

Review_form.dart

```
import 'package:flutter/material.dart';  
  
class ReviewFormScreen extends StatefulWidget {  
    final Map<String, dynamic> movie;  
  
    ReviewFormScreen({required this.movie});  
  
    @override  
    _ReviewFormScreenState createState() => _ReviewFormScreenState();  
}  
  
class _ReviewFormScreenState extends State<ReviewFormScreen> {  
    final _formKey = GlobalKey<FormState>();  
    String name = "", surname = "", email = "", address = "", review = "";  
    String phoneNumber = "", gender = 'Male';
```



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```
int rating = 0;
DateTime? dob;

void _submitReview() {
    if (_formKey.currentState!.validate()) {
        _formKey.currentState!.save();

        showDialog(
            context: context,
            builder: (context) => AlertDialog(
                title: Text("Confirm Submission"),
                content: Text("Are you sure you want to submit the review?"),
                actions: [
                    TextButton(
                        onPressed: () => Navigator.pop(context),
                        child: Text("Cancel")),
                    TextButton(
                        onPressed: () {
                            Navigator.pop(context);
                            ScaffoldMessenger.of(context).showSnackBar(
                                SnackBar(content: Text("Review submitted successfully!")));
                        },
                        child: Text("Submit")),
                ],
            ),
        );
    }
}

void _selectDate(BuildContext context) async {
    final DateTime? selected = await showDatePicker(
        context: context,
        initialDate: DateTime.now(),
        firstDate: DateTime(1900),
        lastDate: DateTime.now(),
    );
    if (selected != null && selected != dob) {
        setState(() {
            dob = selected;
        });
    }
}

@Override
Widget build(BuildContext context) {
    return Scaffold(
        backgroundColor: Colors.black,
        appBar: AppBar(title: Text("Submit Review"), backgroundColor: Colors.black),
        body: Padding(
            padding: EdgeInsets.all(16.0),
            child: Form(
                key: _formKey,
                child: Column(
                    children: [
                        TextFormField(
                            decoration: InputDecoration(
                                labelText: "Name", filled: true, fillColor: Colors.white),
                        ),
                    ],
                ),
            ),
        ),
    );
}
```



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```
validator: (value) => value!.isEmpty ? "Enter your name" : null,  
onSaved: (value) => name = value!,  
,  
TextField(  
  decoration: InputDecoration(  
    labelText: "Surname",  
    filled: true,  
    fillColor: Colors.white),  
  validator: (value) =>  
    value!.isEmpty ? "Enter your surname" : null,  
  onSaved: (value) => surname = value!,  
,  
TextField(  
  decoration: InputDecoration(  
    labelText: "Email", filled: true, fillColor: Colors.white),  
  validator: (value) =>  
    value!.isEmpty ? "Enter your email" : null,  
  onSaved: (value) => email = value!,  
,  
TextField(  
  decoration: InputDecoration(  
    labelText: "Phone Number",  
    filled: true,  
    fillColor: Colors.white),  
  validator: (value) => value!.isEmpty || value.length != 10  
    ? "Enter a valid phone number"  
    : null,  
  onSaved: (value) => phoneNumber = value!,  
,  
TextField(  
  decoration: InputDecoration(  
    labelText: "Address",  
    filled: true,  
    fillColor: Colors.white),  
  validator: (value) =>  
    value!.isEmpty ? "Enter your address" : null,  
  onSaved: (value) => address = value!,  
,  
ListTile(  
  title: Text("Date of Birth",  
    style: TextStyle(color: Colors.white)),  
  subtitle: Text(  
    dob == null ? "Select your date of birth" : dob.toString(),  
    style: TextStyle(color: Colors.white)),  
  trailing: Icon(Icons.calendar_today, color: Colors.white),  
  onTap: () => _selectDate(context),  
,  
DropdownButtonFormField<String>(  
  value: gender,  
  items: ['Male', 'Female', 'Other']  
  .map((label) => DropdownMenuItem(  
    value: label,  
    child: Text(label,  
      style: TextStyle(color: Colors.black))),  
  ))  
  .toList(),  
  onChanged: (value) {  
    setState(() {  
      gender = value!;
```



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	<pre> }); }, decoration: InputDecoration(labelText: 'Gender', filled: true, fillColor: Colors.white,), validator: (value) => value == null ? "Select gender" : null,), TextField(decoration: InputDecoration(labelText: "Review", filled: true, fillColor: Colors.white), maxLines: 3, validator: (value) => value!.isEmpty ? "Enter your review" : null, onSaved: (value) => review = value!,), SizedBox(height: 10), Text("Rate the movie:", style: TextStyle(color: Colors.white)), Row(mainAxisAlignment: MainAxisAlignment.center, children: List.generate(5, (index) { return IconButton(icon: Icon(index < rating ? Icons.star : Icons.star_border, color: index < rating ? Colors.yellow : Colors.grey,), onPressed: () { setState(() => rating = index + 1); },); }),), SizedBox(height: 20), ElevatedButton(onPressed: _submitReview, child: Text("Submit")), SizedBox(height: 20), // Display the entered information Text('Name: \$name \$surname\nEmail: \$email\nPhone: \$phoneNumber\nAddress: \$address\nDOB: \${dob?.toLocal().toString().split(' ')[0] ?? 'Not selected'}\nGender: \$gender\nReview: \$review\nRating: \${'⭐'*rating}', style: TextStyle(color: Colors.white),),],),),),); } }</pre>
Screenshots	



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Beauty and Beast ★ 9  Beautiful Disaster ★ 8.7	Mufasa ★ 8.5  Murarbaji ★ 8.7
 Chandramukhi Marathi ★ 8.7	 Benwad ★ 8.7
 Double Seat ★ 8.7	 Elizabeth Ekadashi ★ 7.8

← **Beauty and Beast**



Beauty and Beast

★ 9

A magical love story where Belle, a young woman, is taken prisoner by a Beast in his castle. Despite her fears, she befriends the castle's enchanted staff and learns to see beyond the Beast's exterior, recognizing the kind heart and soul he possesses.

Genre: Fantasy, Romance

Language: English

Actors: Emma Watson, Dan Stevens

Director: Bill Condon

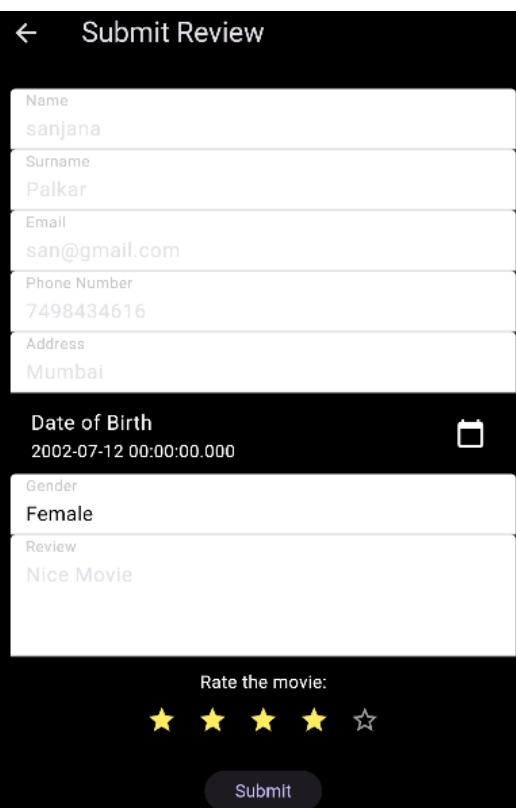
Songs: Beauty and the Beast, Be Our Guest

★ Fan

Submit Review



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	 <div data-bbox="422 1131 847 1491"><p>Name: sanjana Palkar Email: san@gmail.com Phone: 7498434616 Address: Mumbai DOB: 2002-07-12 Gender: Female Review: Nice Movie Rating: ★★★★☆</p></div>
Question and Answers	<p>1. How to create a snackbar? Which component of Flutter does it belong to?</p> <p>A Snackbar in Flutter is used to provide brief feedback about an operation in a lightweight popup. It is typically used to show a message at the bottom of the screen. The component it belongs to is the Scaffold.</p> <p>Example:</p> <pre>ScaffoldMessenger.of(context).showSnackBar(SnackBar(content: Text("This is a Snackbar!")) >;</pre> <p>Explanation:</p> <ul style="list-style-type: none">• ScaffoldMessenger.of(context) accesses the Scaffold of the current context.• showSnackBar displays a Snackbar with the given message.



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2. How to give validation to any field in Flutter?

To provide validation for a field in Flutter, you can use the **TextField** widget along with a **Form** and a **GlobalKey<FormState>**. Inside the form, you specify validation rules using the **validator** property.

Example:

```
final _formKey = GlobalKey<FormState>();
```

```
TextField(  
  decoration: InputDecoration(labelText: 'Name'),  
  validator: (value) {  
    if (value == null || value.isEmpty) {  
      return 'Please enter your name';  
    }  
    return null;  
  },  
)
```

Explanation:

- The validator checks if the input is empty and returns an error message.
- To validate all fields, call `_formKey.currentState?.validate()`.

3. How to navigate from one page to another?

In Flutter, you can navigate from one page to another using the **Navigator** widget. There are two primary methods for navigation:

1. **Push**: To move to a new screen.
2. **Pop**: To return to the previous screen.

Example:

```
Navigator.push(  
  context,  
  MaterialPageRoute(builder: (context) => NewPage()),  
)
```

Explanation:

- `Navigator.push` pushes a new route to the stack, which can be a screen defined by a widget like `MaterialPageRoute`.
- To go back to the previous screen, you use `Navigator.pop(context)`.

4. How are values of variables fetched in Flutter?

In Flutter, values of variables can be fetched using various methods depending on the type of data. For local state management, you can use `setState`, or for fetching data from external sources, you can use **FutureBuilder** or **StreamBuilder** for asynchronous operations.

Example of fetching values:

```
String myValue = 'Hello, Flutter!';
```

```
Text(myValue); // Directly use variable in the widget tree
```

Fetching data asynchronously:

```
Future<String> fetchData() async {  
  await Future.delayed(Duration(seconds: 2));  
  return "Data fetched!";  
}
```

Conclusion

Conclusion:

From this session, I learned the following key concepts about Flutter:

- **Snackbars** are used for quick feedback messages, and they are part of the `ScaffoldMessenger` widget.



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- | | |
|--|---|
| | <ul style="list-style-type: none">• Form validation can be done using the TextFormField with the validator property.• Page navigation in Flutter is accomplished using the Navigator widget with methods like push and pop.• Variable values in Flutter can be accessed and displayed directly or asynchronously, using methods such as FutureBuilder for fetching data. |
| | <p>This session helped me understand core Flutter concepts such as user interaction, validation, navigation, and state management, which are crucial for building interactive mobile applications.</p> |