

# Faculty of Technology and Engineering

Chandubhai S. Patel Institute of Technology

Department of Computer Science & Engineering

Date:    /    /

## Laboratory Manual Performa

Academic Year	:	2024-25	Semester	:	5 <sup>TH</sup>
Course code	:	CSE309	Course name	:	Mobile Application and Development

### Practical - 4

Create a to-do Application using Text field Button. On the button click event display data in List.

#### Introduction of relevant concepts used:

- **StatefulWidget:** A widget in Flutter that maintains mutable state, enabling the UI to dynamically update in response to user interactions, such as adding new tasks in a to-do application.

#### main.dart

```
import 'package:flutter/material.dart';  
import 'screens/todo_screen.dart';
```

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

```
class MyApp extends StatelessWidget {  
  @override  
  Widget build(BuildContext context) {  
    return MaterialApp(  
      title: 'To-Do Application',  
      theme: ThemeData(  
        primarySwatch: Colors.blue,  
      ),  
      home: TodoScreen(),  
    );  
  }  
}
```

#### Todo\_screen.dart

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

```
class TodoScreen extends StatefulWidget {  
  @override  
  _TodoScreenState createState() => _TodoScreenState();  
}
```

```

}

class _TodoScreenState extends State<TodoScreen> {
  final TextEditingController taskController = TextEditingController();
  final List<String> tasks = [];

  void _addTask() {
    if (taskController.text.isNotEmpty) {
      setState(() {
        tasks.add(taskController.text);
        taskController.clear(); // Clear the text field after adding
      });
    }
  }

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      appBar: AppBar(
        title: Text('To-Do Application'),
      ),
      body: Padding(
        padding: const EdgeInsets.all(16.0),
        child: Column(
          children: [
            TextField(
              controller: taskController,
              decoration: InputDecoration(
                labelText: 'Enter a new task',
                border: OutlineInputBorder(),
              ),
            ),
            SizedBox(height: 10),
            ElevatedButton(
              onPressed: _addTask,
              child: Text('Add Task'),
            ),
            SizedBox(height: 20),
            Expanded(
              child: ListView.builder(
                itemCount: tasks.length,
                itemBuilder: (context, index) {
                  return ListTile(
                    title: Text(tasks[index]),
                  );
                },
              ),
            ),
          ],
        ),
      ),
    );
  }
}

```

**Output (Screenshot)**

