

ADVANCE PYTHON PROGRAMMING (ETH)

WEBSITE- FLUTTER

Lab-22

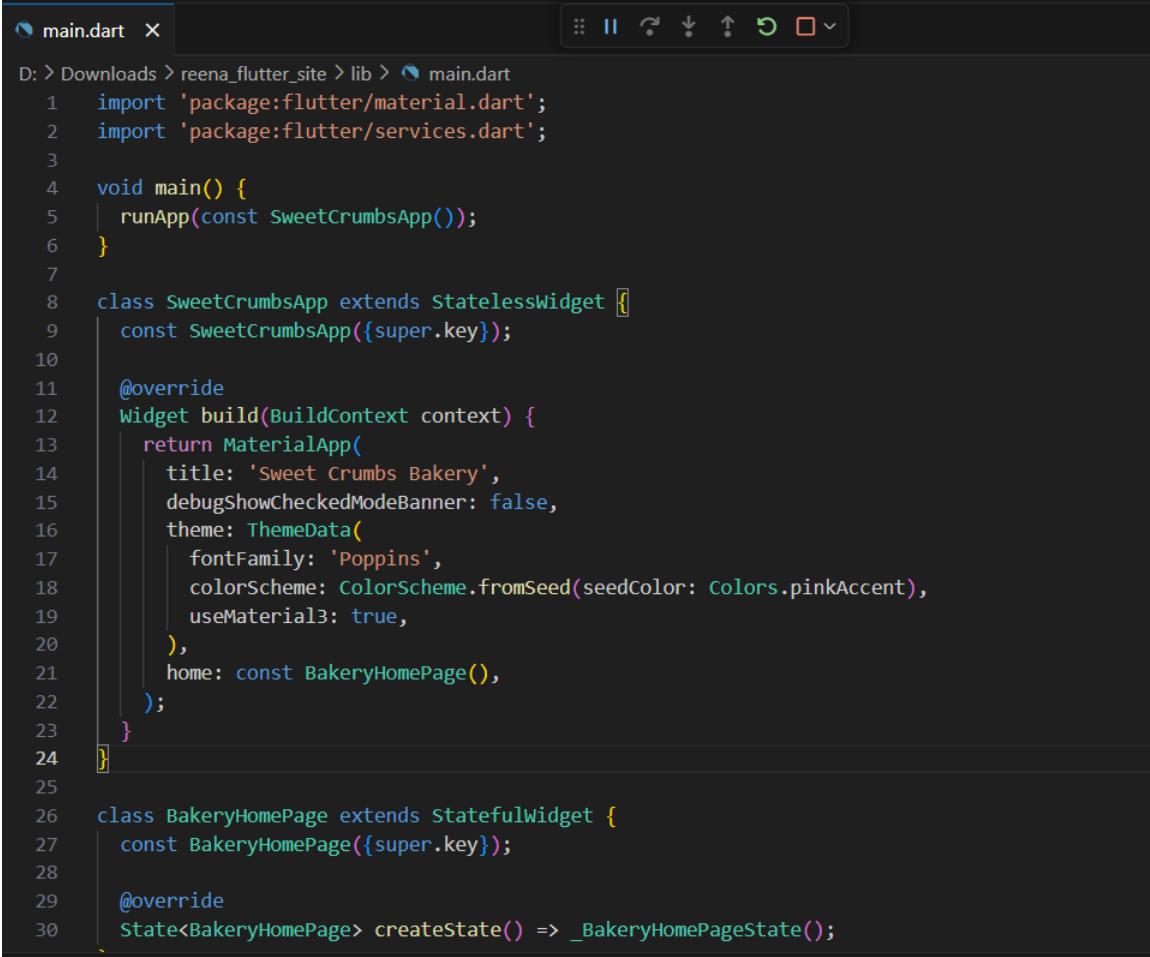
G REENA SRI
22MID0009

05-11-2025

STEPS:

- Install flutter
- Open the folder in terminal
- Flutter devices
- Flutter run -d chrome

SCREENSHOTS:



The screenshot shows a code editor window with the file 'main.dart' open. The code is written in Dart and defines a Flutter application. It imports 'flutter/material.dart' and 'flutter/services.dart'. The main function runs an instance of 'SweetCrumbsApp'. The 'SweetCrumbsApp' class extends 'StatelessWidget' and overrides the 'build' method to return a 'MaterialApp' with a title, theme, and home page. The 'BakeryHomePage' class extends 'StatefulWidget' and defines a 'createState' method.

```
D: > Downloads > reena_flutter_site > lib > main.dart
1 import 'package:flutter/material.dart';
2 import 'package:flutter/services.dart';
3
4 void main() {
5   runApp(const SweetCrumbsApp());
6 }
7
8 class SweetCrumbsApp extends StatelessWidget {
9   const SweetCrumbsApp({super.key});
10
11   @override
12   Widget build(BuildContext context) {
13     return MaterialApp(
14       title: 'Sweet Crumbs Bakery',
15       debugShowCheckedModeBanner: false,
16       theme: ThemeData(
17         fontFamily: 'Poppins',
18         colorScheme: ColorScheme.fromSeed(seedColor: colors.pinkAccent),
19         useMaterial3: true,
20       ),
21       home: const BakeryHomePage(),
22     );
23   }
24 }
25
26 class BakeryHomePage extends StatefulWidget {
27   const BakeryHomePage({super.key});
28
29   @override
30   State<BakeryHomePage> createState() => _BakeryHomePageState();
```

```
31 }
32
33 class _BakeryHomePageState extends State<BakeryHomePage> {
34   final ScrollController _scrollController = ScrollController();
35
36   void _scrollToProducts() {
37     _scrollController.animateTo(
38       600, // scroll distance to products
39       duration: const Duration(milliseconds: 700),
40       curve: Curves.easeInOut,
41     );
42   }
43
44   @override
45   Widget build(BuildContext context) {
46     return Scaffold(
47       body: Container(
48         decoration: const BoxDecoration(
49           gradient: LinearGradient(
50             colors: [Color(0xFFFFF3E6), Color(0xFFFFE6F2)],
51             begin: Alignment.topLeft,
52             end: Alignment.bottomRight,
53           ),
54         ),
55         child: SingleChildScrollView(
56           controller: _scrollController,
57           child: Column(
58             children: [
59               const BakeryNavbar(),
60               HeroSection(onExplore: _scrollToProducts),
61               const ProductGrid(),
62               const BakeryFooter(),
63             ],
64           ),
65         ),
66       ),
67     );
68   }
69 }
70
71 /* ❁ Navbar */
72 class BakeryNavbar extends StatelessWidget {
73   const BakeryNavbar({super.key});
74
75   @override
76   Widget build(BuildContext context) {
77     return Container(
78       padding: const EdgeInsets.symmetric(horizontal: 60, vertical: 14),
79       decoration: BoxDecoration(
80         color: Colors.white.withOpacity(0.95),
81         boxShadow: [
82           BoxShadow(
83             color: Colors.black.withOpacity(0.05),
84             blurRadius: 8,
85             offset: const Offset(0, 4),
86           ),
87         ],
88       ),
89       child: Row(
90         mainAxisAlignment: MainAxisAlignment.spaceBetween,
91         children: [
92           const Text(
93             'Sweet Crumbs ☺',
94             style: TextStyle(
95               fontSize: 24,
96               fontWeight: FontWeight.bold,
97               color: Color(0xFFFF7B9C),
98               shadows: [
99                 Shadow(color: color(0xFFFFE3E3), offset: Offset(1, 1)),
100               ],
101             ),
102           ),
103           Row(
104             children: [
105               _navItem('Home'),
106               _navItem('Menu'),
107               _navItem('About'),
108               _navItem('Cart 🛒'),
109             ],
110           ),
111         ],
112       ),
113     );
114 }
```

```

110     ],
111     ],
112   ),
113 );
114 }
115
116 Widget _navItem(String label) {
117   return Padding(
118     padding: const EdgeInsets.symmetric(horizontal: 14),
119     child: MouseRegion(
120       cursor: SystemMouseCursors.click,
121       child: Text(
122         label,
123         style: const TextStyle(
124           color: Colors.black87,
125           fontWeight: FontWeight.w500,
126           fontSize: 16,
127         ),
128       ),
129     ),
130   );
131 }
132 }
133 */
134 /* 🎂 Hero Section */
135 class HeroSection extends StatelessWidget {
136   final VoidCallback onExplore;
137   const HeroSection({super.key, required this.onExplore});
138
139   @override
140   Widget build(BuildContext context) {
141     return Container(
142       color: Colors.white.withOpacity(0.7),
143       padding: const EdgeInsets.symmetric(vertical: 100, horizontal: 20),
144       child: Column(
145         children: [
146           const Text(
147             'Freshly Baked Happiness!',
148             textAlign: TextAlign.center,
149             style: TextStyle(
150               fontSize: 48,
151               fontWeight: FontWeight.bold,
152               color: Color(0xFFFF4F70),
153             ),
154           ),
155           const SizedBox(height: 16),
156           const Text(
157             'Discover our delicious handmade treats – cupcakes, cookies, and more – baked daily with love and fresh ingredients.',
158             textAlign: TextAlign.center,
159             style: TextStyle(
160               fontSize: 18,
161               color: Colors.black54,
162             ),
163           ),
164           const SizedBox(height: 30),
165           ElevatedButton(
166             onPressed: onExplore,
167             style: ElevatedButton.styleFrom(
168               backgroundColor: const Color(0xFFFF7B9C),
169               foregroundColor: Colors.white,
170               padding:
171                 const EdgeInsets.symmetric(horizontal: 30, vertical: 14),
172               shape: RoundedRectangleBorder(
173                 borderRadius: BorderRadius.circular(30),
174               ),
175               shadowColor: Colors.pinkAccent,
176               elevation: 10,
177             ),
178             child: const Text(
179               'Explore Menu',
180               style: TextStyle(fontSize: 16, fontWeight: FontWeight.w600),
181             ),
182           ),
183         ],
184       ),
185     );
186   }
187 }
188 */

```

```

188 /* 🎂 Product Grid */
189 class ProductGrid extends StatelessWidget {
190   const ProductGrid({super.key});
191
192   final List<Map<String, String>> products = const [
193     {
194       'name': 'Chocolate Cupcake',
195       'price': '₹120',
196       'image': 'assets/cupcakes.jpg',
197     },
198     {
199       'name': 'Cake',
200       'price': '₹499',
201       'image': 'assets/cakes.jpeg',
202     },
203     {
204       'name': 'Butter Cookies',
205       'price': '₹250',
206       'image': 'assets/butter_cookies.jpg',
207     },
208     {
209       'name': 'French Macarons',
210       'price': '₹299',
211       'image': 'assets/macarons.jpg',
212     },
213   ],
214 ];
215
216 @override
217 Widget build(BuildContext context) {
218   return LayoutBuilder(
219     builder: (context, constraints) {
220       int crossAxisCount = constraints.maxWidth < 600
221         ? 1
222         : constraints.maxWidth < 900
223           ? 2
224           : 4;
225       return Padding(
226         padding: const EdgeInsets.symmetric(horizontal: 60, vertical: 40),
227         child: GridView.builder(
228           itemCount: products.length,
229           shrinkWrap: true,
230           physics: const NeverScrollableScrollPhysics(),
231           gridDelegate: SliverGridDelegateWithFixedCrossAxisCount(
232             crossAxisCount: crossAxisCount,
233             crossAxisSpacing: 30,
234             mainAxisSpacing: 30,
235             childAspectRatio: 0.75,
236           ),
237           itemBuilder: (context, index) {
238             final product = products[index];
239             return ProductCard(
240               name: product['name']!,
241               price: product['price']!,
242               imagePath: product['image']!,
243             );
244           },
245           imageFit: BoxFit.cover,
246         );
247       );
248     },
249   );
250 }
251
252 /* 💳 Product Card Widget */
253 class ProductCard extends StatefulWidget {
254   final String name;
255   final String price;
256   final String imagePath;
257
258   const ProductCard({
259     super.key,
260     required this.name,
261     required this.price,
262     required this.imagePath,
263   });
264
265   @override
266   State<ProductCard> createState() => _ProductCardState();
267 }

```

```
255     class _ProductCard extends StatelessWidget {
256   }
257
258   class _ProductCardState extends State<ProductCard> {
259     bool _isHovered = false;
260
261     @override
262     Widget build(BuildContext context) {
263       return MouseRegion(
264         onEnter: (_) => setState(() => _isHovered = true),
265         onExit: (_) => setState(() => _isHovered = false),
266         child: AnimatedContainer(
267           duration: const Duration(milliseconds: 250),
268           transform: Matrix4.identity()
269             ..scale(_isHovered ? 1.04 : 1.0),
270           decoration: BoxDecoration(
271             color: Colors.white,
272             borderRadius: BorderRadius.circular(20),
273             boxShadow: [
274               BoxShadow(
275                 color: _isHovered
276                   ? Colors.pinkAccent.withOpacity(0.3)
277                   : Colors.black12,
278                 blurRadius: _isHovered ? 20 : 10,
279                 offset: const Offset(0, 6),
280               ),
281             ],
282           ),
283         ),
284         child: Column(
285           mainAxisAlignment: MainAxisAlignment.center,
286           children: [
287             ClipRect(
288               borderRadius:
289                 const BorderRadius.vertical(top: Radius.circular(20)),
290               child: Image.asset(
291                 widget imagePath,
292                 height: 180,
293                 width: double.infinity,
294                 fit: BoxFit.cover,
295               ),
296             ),
297             const SizedBox(height: 12),
298             Text(
299               widget.name,
300               style: const TextStyle(
301                 fontSize: 18,
302                 fontWeight: FontWeight.w600,
303                 color: Colors.black87),
304             ),
305             const SizedBox(height: 6),
306             Text(
307               widget.price,
308               style: const TextStyle(fontSize: 15, color: Colors.grey),
309             ),
310             const SizedBox(height: 12),
311
312             ElevatedButton(
313               onPressed: () {},
314               style: ElevatedButton.styleFrom(
315                 backgroundColor: const Color(0xFFFFF7B9C),
316                 foregroundColor: Colors.white,
317                 shape: RoundedRectangleBorder(
318                   borderRadius: BorderRadius.circular(20),
319                 ),
320                 padding:
321                   const EdgeInsets.symmetric(horizontal: 24, vertical: 10),
322               ),
323               child: const Text('Add to Cart'),
324             ),
325           ],
326         ),
327       );
328     }
329   }
330
331   /* ❤ Footer */
332   class BakeryFooter extends StatelessWidget {
333     const BakeryFooter({super.key});
334
335     @override
336     Widget build(BuildContext context) {
337       return Container(
338         padding: const EdgeInsets.all(16),
339         color: Colors.white,
340         child: Column(
341           mainAxisAlignment: MainAxisAlignment.end,
342           children: [
343             Text('© 2023 BAKERY. All rights reserved.'),  
344           
```

```

340  /* ❤ Footer */
341  class BakeryFooter extends StatelessWidget {
342    const BakeryFooter({super.key});
343
344
345    @override
346    Widget build(BuildContext context) {
347      return Container(
348        color: const Color(0xFFFFF3F8),
349        padding: const EdgeInsets.all(40),
350        child: const Text(
351          '© 2025 Sweet Crumbs Bakery. Crafted with ❤ by Reena Sri G',
352          style: TextStyle(color: colors.black54, fontSize: 15),
353          textAlign: TextAlign.center,
354        ),
355      );
356    }
357  }
358
359

```

FOLDER:

This PC > Downloads > reena_flutter_site >				
	Name	Date modified	Type	Size
Quick access	.dart_tool	04-11-2025 13:31	File folder	
Desktop	.idea	04-11-2025 13:26	File folder	
Documents	android	04-11-2025 13:26	File folder	
Downloads	build	04-11-2025 13:29	File folder	
Pictures	ios	04-11-2025 13:26	File folder	
Anushree	lib	05-11-2025 20:54	File folder	
Mod2 and 3	linux	04-11-2025 13:26	File folder	
mod6	macos	04-11-2025 13:26	File folder	
reena_flutter_site	test	04-11-2025 13:26	File folder	
Screenshots	web	04-11-2025 13:26	File folder	
OneDrive - Personal	windows	04-11-2025 13:26	File folder	
This PC	.gitignore	04-11-2025 13:26	Text Document	1 KB
3D Objects	.metadata	04-11-2025 13:26	METADATA File	2 KB
Desktop	analysis_options.yaml	04-11-2025 13:26	Yaml Source File	2 KB
Documents	pubspec.lock	04-11-2025 13:26	LOCK File	6 KB
Downloads	pubspec.yaml	04-11-2025 13:26	Yaml Source File	4 KB
Music	README.md	04-11-2025 13:26	Markdown Source ...	1 KB
Pictures	reena_flutter_site.iml	04-11-2025 13:26	IML File	1 KB
Videos	cakes.jpeg	05-11-2025 21:05	JPEG File	455 KB
Windows (C)	macarons.jpg	05-11-2025 21:05	JPG File	11 KB
DATA (D)	butter_cookies.jpg	05-11-2025 21:03	JPG File	134 KB
New Volume (E)	cupcakes.jpg	05-11-2025 21:03	JPG File	115 KB
Network				

TERMINAL EXECUTION:

```
parthi@Panda 05:38 ~
⚡ flutter create reena_flutter_site
Creating project reena_flutter_site...
Resolving dependencies in `reena_flutter_site`...
Downloading packages...
Got dependencies in `reena_flutter_site`.
Wrote 130 files.

All done!
You can find general documentation for Flutter at: https://docs.flutter.dev/
Detailed API documentation is available at: https://api.flutter.dev/
If you prefer video documentation, consider: https://www.youtube.com/c/flutterdev

In order to run your application, type:

$ cd reena_flutter_site
$ flutter run

Your application code is in reena_flutter_site/lib/main.dart.
```

Your application code is in reena_flutter_site/lib/main.dart.

```
parthi@Panda 05:38 ~
⚡ cd reena_flutter_site/
parthi@Panda 05:39 ~/reena_flutter_site
⚡ flutter devices
Found 2 connected devices:
  Linux (desktop) • linux • linux-x64      • Debian GNU/Linux 13 (trixie)
  6.12.48+deb13-amd64
  Chrome (web)    • chrome • web-javascript • Chromium 141.0.7390.122 built on Debian
  GNU/Linux 13 (trixie)
```

Run "flutter emulators" to list and start any available device emulators.

If you expected another device to be detected, please run "flutter doctor" to diagnose potential issues. You may also try increasing the time to wait for connected devices with the "--device-timeout" flag. Visit <https://flutter.dev/setup/> for troubleshooting tips.

```
parthi@Panda 05:39 ~/reena_flutter_site
⚡ flutter run -d chrome
Launching lib/main.dart on Chrome in debug mode...
Waiting for connection from debug service on Chrome...          16.6s
This app is linked to the debug service: ws://127.0.0.1:40351/L2SI4rG2G0A=/ws
Debug service listening on ws://127.0.0.1:40351/L2SI4rG2G0A=/ws

Flutter run key commands.
r Hot reload. 🔥🔥
R Hot restart.
h List all available interactive commands.
d Detach (terminate "flutter run" but leave application running).
c Clear the screen
q Quit (terminate the application on the device).

A Dart VM Service on Chrome is available at: http://127.0.0.1:40351/L2SI4rG2G0A=
Starting application from main method in: org-dartlang-app:/web_entrypoint.dart.
The Flutter DevTools debugger and profiler on Chrome is available at:
http://127.0.0.1:9100?uri=http://127.0.0.1:40351/L2SI4rG2G0A=
```

OUTPUT;

The screenshot shows a web browser window for 'Sweet Crumbs Bakery' at 'localhost:35271'. The page has a pink header with the title 'Sweet Crumbs 😊'. A navigation bar at the top right includes 'Home', 'Menu', 'About', and 'Cart'. Below the header, a main heading 'Freshly Baked Happiness!' is displayed, followed by a subtext: 'Discover our delicious handmade treats — cupcakes, cookies, and more — baked daily with love and fresh ingredients.' A red 'Explore Menu' button is centered. Below this, there are four product cards: 'Chocolate Cupcake' (image of a chocolate cupcake), 'Cake' (image of a chocolate cake with drips), 'Butter Cookies' (image of yellow swirl cookies), and 'French Macarons' (image of colorful macarons). Each card has its name and a small description below it. At the bottom of the page, there's a footer with the bakery's name, a copyright notice for 2025, and a link to Reena Sri G.

Sweet Crumbs 😊

Freshly Baked Happiness!

Discover our delicious handmade treats — cupcakes, cookies, and more — baked daily with love and fresh ingredients.

Explore Menu

Chocolate Cupcake

Cake

Butter Cookies

French Macarons

Sweet Crumbs 😊

— baked daily with love and fresh ingredients

Explore Menu

Chocolate Cupcake ₹120 Add to Cart

Cake ₹499 Add to Cart

Butter Cookies ₹250 Add to Cart

French Macarons ₹299 Add to Cart

© 2025 Sweet Crumbs Bakery. Crafted with ❤️ by Reena Sri G

GITHUB LINK: <https://github.com/Reenasri-17/Advance-python-programming-LAB-.git>