

# ADVANCE PYTHON PROGRAMMING (ETH)

## WEBSITE- FLUTTER

### Lab-22

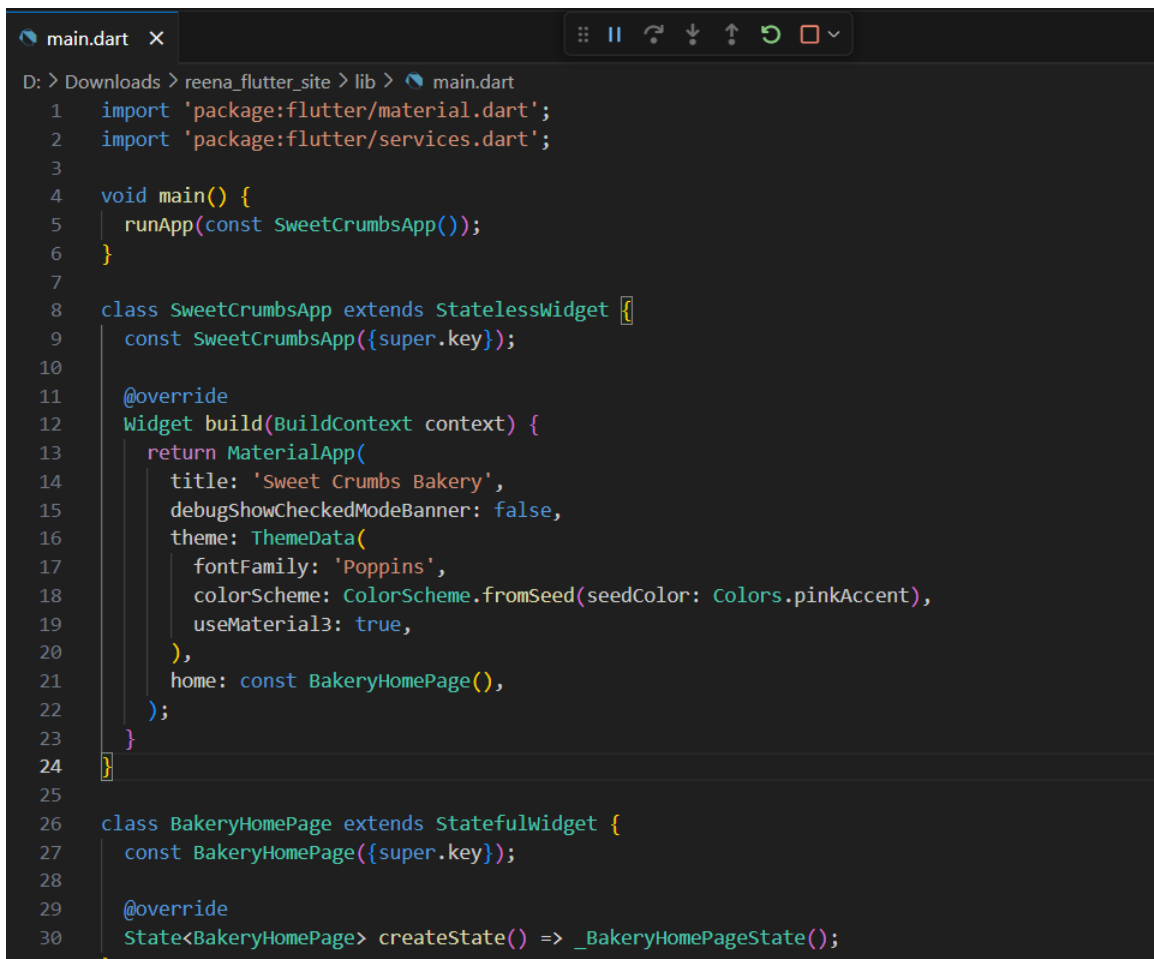
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**05-11-2025**

#### STEPS:

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

#### SCREENSHOTS:



```
main.dart x
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 }
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
136 class HeroSection extends StatelessWidget {
137     final VoidCallback onExplore;
138     const HeroSection({super.key, required this.onExplore});
139
140     @override
141     Widget build(BuildContext context) {
142         return Container(
143             color: Colors.white.withOpacity(0.7),
144             padding: const EdgeInsets.symmetric(vertical: 100, horizontal: 20),
145             child: Column(
146                 children: [
147                     const Text(
148                         'Freshly Baked Happiness!',
149                         textAlign: TextAlign.center,
150                         style: TextStyle(
151                             fontSize: 48,
152                             fontWeight: FontWeight.bold,
153                             color: Color(0xFFFFF4F70),
154                         ),
155                     ),
156                     const SizedBox(height: 16),
157                     const Text(
158                         'Discover our delicious handmade treats – cupcakes, cookies, and more – baked daily with love and fresh ingredients.',
159                         textAlign: TextAlign.center,
160                         style: TextStyle(
161                             fontSize: 18,
162                             color: Colors.black54,
163                         ),
164                     ),
165                     const SizedBox(height: 30),
166                     ElevatedButton(
167                         onPressed: onExplore,
168                         style: ElevatedButton.styleFrom(
169                             backgroundColor: const Color(0xFFFFF7B9C),
170                             foregroundColor: Colors.white,
171                             padding:
172                                 const EdgeInsets.symmetric(horizontal: 30, vertical: 14),
173                             shape: RoundedRectangleBorder(
174                                 borderRadius: BorderRadius.circular(30),
175                             ),
176                             shadowColor: Colors.pinkAccent,
177                             elevation: 10,
178                         ),
179                         child: const Text(
180                             'Explore Menu',
181                             style: TextStyle(fontSize: 16, fontWeight: FontWeight.w600),
182                         ),
183                     ),
184                 ],
185             ),
186         );
187     }
188 }

```

```

188
189 /* 🍰 Product Grid */
190 class ProductGrid extends StatelessWidget {
191   const ProductGrid({super.key});
192
193   final List<Map<String, String>> products = const [
194     {
195       'name': 'Chocolate Cupcake',
196       'price': '₹120',
197       'image': 'assets/cupcakes.jpg',
198     },
199     {
200       'name': 'Cake',
201       'price': '₹499',
202       'image': 'assets/cakes.jpeg',
203     },
204     {
205       'name': 'Butter Cookies',
206       'price': '₹250',
207       'image': 'assets/butter_cookies.jpg',
208     },
209     {
210       'name': 'French Macarons',
211       'price': '₹299',
212       'image': 'assets/macarons.jpg',
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           ),
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 }

```

```

267 }
268
269 class _ProductCardState extends State<ProductCard> {
270   bool _isHovered = false;
271
272   @override
273   Widget build(BuildContext context) {
274     return MouseRegion(
275       onEnter: (_) => setState(() => _isHovered = true),
276       onExit: (_) => setState(() => _isHovered = false),
277       child: AnimatedContainer(
278         duration: const Duration(milliseconds: 250),
279         transform: Matrix4.identity()
280           ..scale(_isHovered ? 1.04 : 1.0),
281         decoration: BoxDecoration(
282           color: Colors.white,
283           borderRadius: BorderRadius.circular(20),
284           boxShadow: [
285             BoxShadow(
286               color: _isHovered
287                 ? Colors.pinkAccent.withOpacity(0.3)
288                 : Colors.black12,
289               blurRadius: _isHovered ? 20 : 10,
290               offset: const Offset(0, 6),
291             ),
292           ],
293       ),
294       child: Column(
295         crossAxisAlignment: CrossAxisAlignment.center,
296         children: [
297           ClipRect(
298             borderRadius:
299               const BorderRadius.vertical(top: Radius.circular(20)),
300             child: Image.asset(
301               widget.imagePath,
302               height: 180,
303               width: double.infinity,
304               fit: BoxFit.cover,
305             ),
306           ),
307           const SizedBox(height: 12),
308           Text(
309             widget.name,
310             style: const TextStyle(
311               fontSize: 18,
312               fontWeight: FontWeight.w600,
313               color: Colors.black87),
314           ),
315           const SizedBox(height: 6),
316           Text(
317             widget.price,
318             style: const TextStyle(fontSize: 15, color: Colors.grey),
319           ),
320           const SizedBox(height: 12),

```

```

321           const SizedBox(height: 12),
322           ElevatedButton(
323             onPressed: () {},
324             style: ElevatedButton.styleFrom(
325               backgroundColor: const Color(0xFFFFF7B9C),
326               foregroundColor: Colors.white,
327               shape: RoundedRectangleBorder(
328                 borderRadius: BorderRadius.circular(20),
329               ),
330               padding:
331                 const EdgeInsets.symmetric(horizontal: 24, vertical: 10),
332             ),
333             child: const Text('Add to Cart'),
334           ),
335         ],
336       ),
337     );
338   }
339 }
340
341 /* ❤️ Footer */
342 class BakeryFooter extends StatelessWidget {
343   const BakeryFooter({super.key});
344

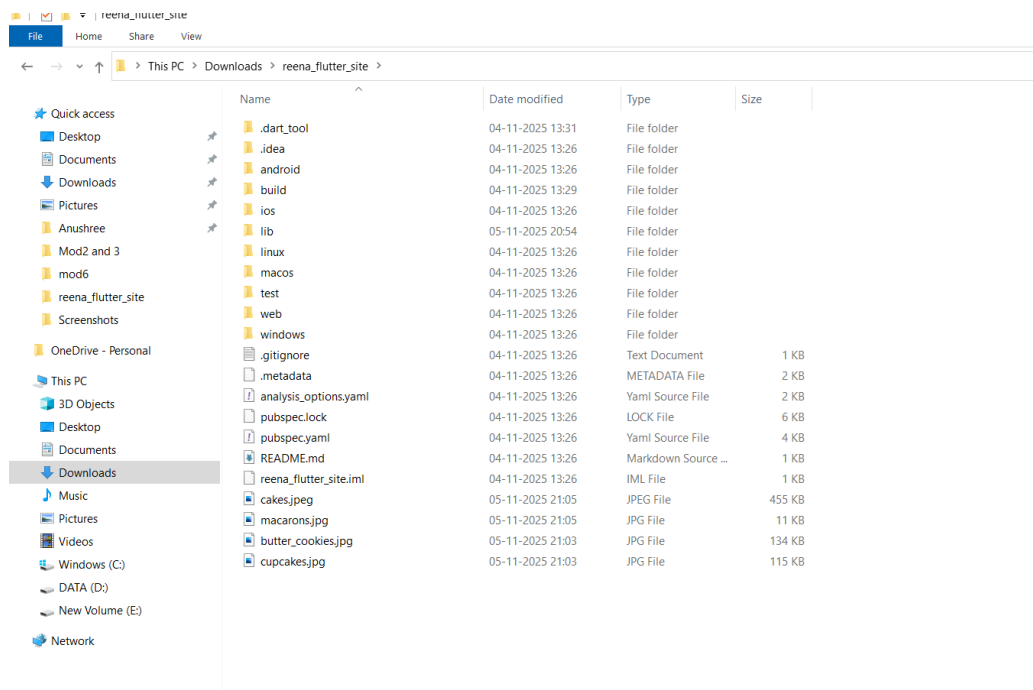
```

```

340
341 /* ♥ Footer */
342 class BakeryFooter extends StatelessWidget {
343   const BakeryFooter({super.key});
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:



Name	Date modified	Type	Size
.dart_tool	04-11-2025 13:31	File folder	
.idea	04-11-2025 13:26	File folder	
android	04-11-2025 13:26	File folder	
build	04-11-2025 13:29	File folder	
ios	04-11-2025 13:26	File folder	
lib	05-11-2025 20:54	File folder	
linux	04-11-2025 13:26	File folder	
macos	04-11-2025 13:26	File folder	
test	04-11-2025 13:26	File folder	
web	04-11-2025 13:26	File folder	
windows	04-11-2025 13:26	File folder	
.gitignore	04-11-2025 13:26	Text Document	1 KB
.metadata	04-11-2025 13:26	METADATA File	2 KB
analysis_options.yaml	04-11-2025 13:26	Yaml Source File	2 KB
pubspec.lock	04-11-2025 13:26	LOCK File	6 KB
pubspec.yaml	04-11-2025 13:26	Yaml Source File	4 KB
README.md	04-11-2025 13:26	Markdown Source ...	1 KB
reena_flutter_site.iml	04-11-2025 13:26	IML File	1 KB
cakes.jpeg	05-11-2025 21:05	JPEG File	455 KB
macarons.jpg	05-11-2025 21:05	JPG File	11 KB
butter_cookies.jpg	05-11-2025 21:03	JPG File	134 KB
cupcakes.jpg	05-11-2025 21:03	JPG File	115 KB

## 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.

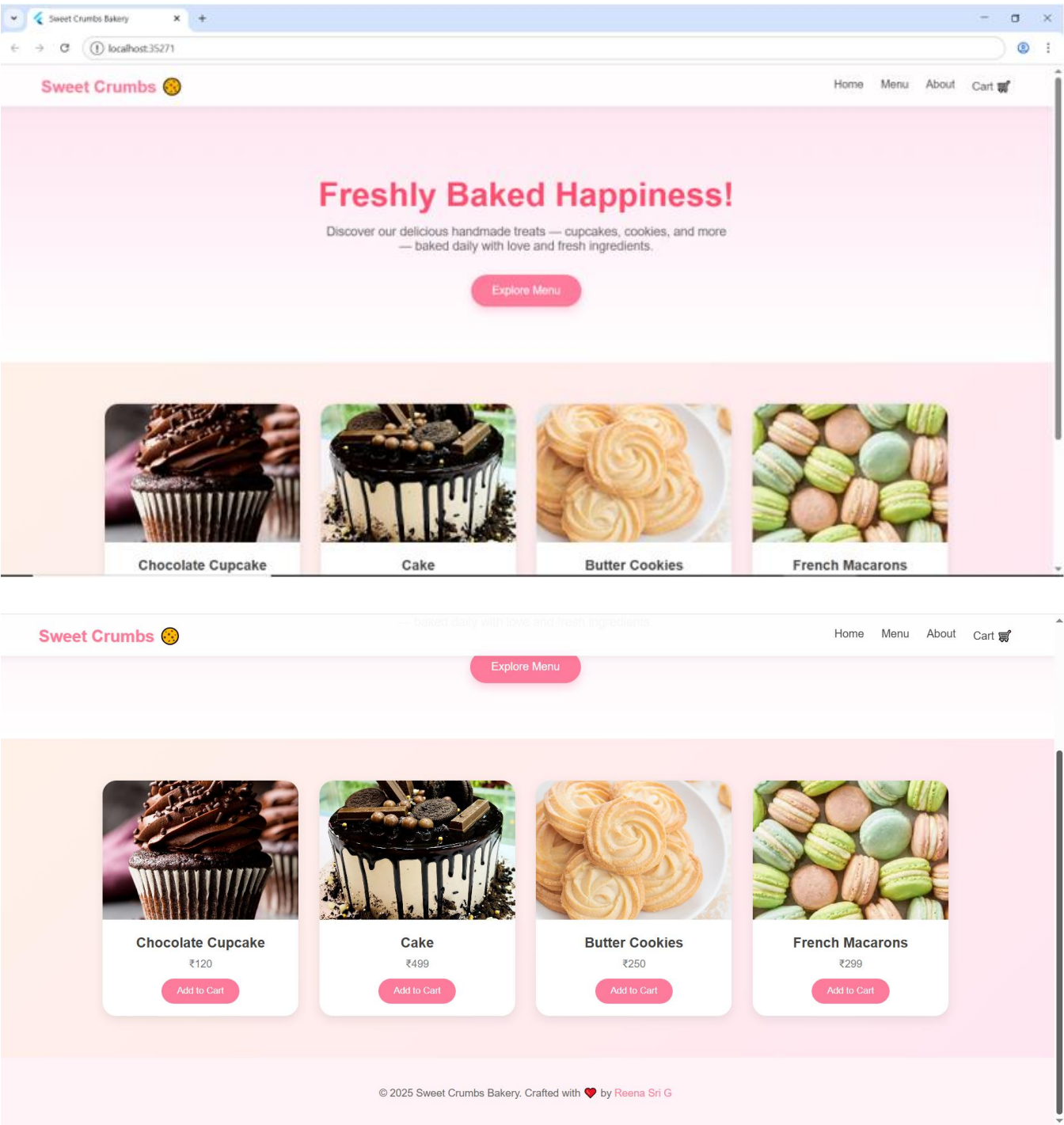
```
parthi@Panda 05:38 ~  
⚡ cd reena_flutter_site/  
parthi@Panda 05:39 ~/reena_flutter_site  
⚡ flutter devices  
Found 2 connected devices:  
Linux (desktop) • linux • linux-x64 • Debian GNU/Linux 13 (trixie)  
6.12.48+deb13-amd64  
Chrome (web) • chrome • web-javascript • Chromium 141.0.7390.122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



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