

Recipe Book – Project Report

1. Title Page

Project Title: Recipe Book Website **Submitted By:**

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- **Course:** UI/UX Design Fundamentals
- **Instructor Name:** Dr Nagaveena
- **Institution:** Christ University
- **Date of Submission:** 26/09/2025

2. Abstract

This project presents an interactive Recipe Book web application built using HTML, CSS, JavaScript, Bootstrap, and jQuery. The aim was to create a responsive and user-friendly interface that allows users to browse, search, and filter recipes based on categories, ingredients, and difficulty levels. Key features include dynamic recipe listings with images and summaries, real-time filtering options, and detailed recipe pages showcasing ingredients and preparation steps. The design adapts seamlessly across devices, ensuring accessibility and ease of navigation. This application serves as a practical tool for culinary enthusiasts and developers alike, emphasizing modular design, intuitive UX, and scalable front-end architecture.

3. Objectives

- Design and intuitive and visually appealing interface that aligns with modern UI/UX standards.
- Develop a fully responsive recipe browsing experience using HTML, CSS, Bootstrap, and jQuery.
- Implement structured HTML5 semantic elements to enhance clarity, maintainability, and SEO performance.
- Utilize CSS and Bootstrap for consistent branding, dynamic layout control, and smooth visual transitions.
- Ensure accessibility, readability, and seamless navigation across all screen sizes and devices.

- Integrate interactive features such as category-based filtering and detailed recipe views to enrich user engagement.

4. Scope of the Project

- Focused primarily on front-end development using HTML, CSS, Bootstrap, and jQuery.
- Designed to support seamless interaction across desktop, tablet, and mobile devices.
- Utilizes open-source technologies and custom-written code for layout, styling, and interactivity.
- Incorporates locally hosted recipe images (JPEG/PNG/WebP) organized within the project’s assets directory.
- Excludes server-side functionality; all data handling and filtering are managed client-side for demonstration purposes.
- Intended as a standalone front-end prototype suitable for showcasing UI/UX design and responsive behavior.

Tools & Technologies Used

Tool / Technology	Purpose
HTML5	Markup and semantic structure for recipe listings and detail pages
CSS3	Styling, layout control, responsive design, and visual enhancements
Bootstrap	Grid system, UI components, and mobile-first responsiveness
jQuery	Testing and debugging
VS Code	DOM manipulation for search/filter interactions and dynamic content display

5. HTML Structure Overview

- Semantic sections used: <header>, <nav>, <main>, <section>, and <footer>
- Page organized into Header, Search & Filter Controls, Recipe Listing Grid, Recipe Details View, and Footer
- Navigation bar (<nav>) includes category links and branding for intuitive access

- Recipe cards structured with <article> elements containing images, titles, and summaries

6. CSS Styling Strategy

- External Stylesheet: style.css organized into modular sections with clear comments for maintainability
- Layout: Bootstrap grid system for responsive recipe cards; Flexbox used for header and filter controls
- Interactivity: Smooth hover effects on recipe cards, button transitions, and subtle animations for UI feedback
- Responsiveness: Media queries and Bootstrap classes ensure fluid layout across devices; images styled with object-fit: cover for visual consistency
- Typography: Google Fonts (e.g., Lora, Open Sans) imported with a robust fallback stack for readability

7. Key Features

Recipe Listing: Display a curated list of recipes with images, titles, and brief descriptions

Search and Filter Functionality: Allow users to refine results by cuisine type, difficulty level, or dietary preferences.

Recipe Details Page: Provide a dedicated view for each recipe, including ingredients, preparation steps, and additional notes.

Responsive Design: Ensure seamless usability across desktops, tablets, and mobile devices.

8. Challenges Faced & Solutions

Challenge	Solution
Image overflow on smaller screens	Applied objectfit: cover to recipe images and used media queries to adjust grid layout and image dimensions.
Dynamic filtering without page reload	Leveraged jQuery to update recipe listings in real-time based on selected filters, avoiding full page refresh.
Maintaining layout consistency	Used Bootstrap’s grid system and Flexbox for structured alignment across recipe cards and filter controls.
Responsive navigation on mobile devices	Implemented a collapsible navbar using Bootstrap components for smooth mobile interaction.

9. Outcome

- Delivered a responsive, user-friendly recipe book interface with intuitive navigation and dynamic filtering.
- Successfully implemented core features—recipe listing, search/filter controls, and detailed views—using HTML, CSS, Bootstrap, JavaScript, and jQuery.
- Achieved consistent layout and visual hierarchy across devices, enhancing usability and readability.
- Strengthened practical understanding of semantic HTML structure, modular CSS styling, and interactive front-end behaviour.
- Demonstrated effective use of open-source tools and frameworks to build scalable, maintainable web applications.

10. Future Enhancements

Advanced Interactivity: Enhance user experience with JavaScript-powered features like keyboard navigation, animated transitions, and modal overlays for recipe previews.

Theme Toggler: Introduce a light/dark mode switch using CSS variables to improve accessibility and user personalization.

Accessibility Improvements: Add focus management, ARIA roles, and ESC-to-close functionality for modals and dropdowns to support keyboard and screen reader users.

Backend Integration: Connect to a server-side database to store recipes, enable user submissions, and track usage analytics.

User Accounts: Allow users to create profiles, save favorite recipes, and submit their own creations for community sharing.

11. Sample Code

11.1 HTML code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8" />
  <meta name="viewport" content="width=device-width,initial-scale=1" />
  <title>Bougie Recipe Book</title>

  <!-- Bootstrap -->
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/css/bootstrap.min.css"
rel="stylesheet">
```

```

<!-- Bootstrap Icons -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap-
icons@1.11.3/font/bootstrap-icons.css" rel="stylesheet">

<!-- Custom -->
<link rel="stylesheet" href="style.css" />
</head>
<body class="light">

<!-- NAV -->
<nav class="navbar navbar-expand-lg navbar-light bg-white shadow-sm py-3">
  <div class="container">
    <a class="navbar-brand fw-bold" href="#">Bougie Recipe Book</a>

    <div class="d-flex gap-2 align-items-center">
      <div class="me-2">
        <select id="categoryFilter" class="form-select form-select-sm">
          <option value="">All Categories</option>
          <option value="breakfast">Breakfast</option>
          <option value="lunch">Lunch</option>
          <option value="dinner">Dinner</option>
          <option value="dessert">Dessert</option>
          <option value="snack">Snack</option>
        </select>
      </div>

      <input id="searchInput" class="form-control form-control-sm me-2"
placeholder="Search name / ingredients" />

      <button id="randomBtn" class="btn btn-outline-primary btn-sm me-2"
title="Surprise me">
        <i class="bi bi-dice-5-fill"></i>
      </button>
    </div>
  </div>
</nav>

<!-- HERO -->
<header class="hero text-center text-white d-flex align-items-center
justify-content-center">
  <div class="overlay"></div>

```

```

    <div class="hero-content">
      <h1 class="display-5 fw-bold">A Bougie Collection – 12 Gourmet
Recipes</h1>
      <p class="lead">Ignite Your Tastebuds, One Recipe at a Time</p>
    </div>
  </header>

  <!-- CONTENT -->
  <main class="container my-5">
    <div id="cards" class="row g-4">
      <!-- Recipe cards injected in HTML for clarity (12 cards) -->
      <!-- 1 -->
      <div class="col-md-4 recipe-card" data-category="dinner" data-
name="Truffle Mushroom Pasta" data-ingredients="Pasta,Cremini
mushrooms,Truffle oil,Parmesan,Garlic,Butter">
        <div class="card h-100 shadow-sm">
          <div class="card-img-top-wrapper">
            
            <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
          </div>
          <div class="card-body d-flex flex-column">
            <h5 class="card-title">Truffle Mushroom Pasta</h5>
            <p class="card-text text-muted small">Silky tagliatelle tossed
with sautéed mushrooms and a whisper of truffle.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
              <small class="badge bg-secondary">Difficulty: Medium</small>
              <button class="btn btn-outline-success btn-sm view-btn"
                data-title="Truffle Mushroom Pasta"
                data-steps='["Boil pasta al dente.", "Sauté garlic in butter,
add mushrooms and cook until golden.", "Toss pasta with mushrooms, add truffle
oil and grated parmesan.", "Serve immediately with extra parmesan."]'
                data-ingredients="Pasta,Cremini mushrooms,Truffle
oil,Parmesan,Garlic,Butter">
                View
              </button>
            </div>
          </div>
        </div>
      </div>
    </div>
  </main>

```

```

    <!-- 2 -->
    <div class="col-md-4 recipe-card" data-category="dinner" data-
name="Seared Ribeye Steak" data-
ingredients="Ribeye,Butter,Thyme,Garlic,Salt,Pepper">
      <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
          
          <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
        <div class="card-body d-flex flex-column">
          <h5 class="card-title">Seared Ribeye Steak</h5>
          <p class="card-text text-muted small">Perfectly crusted ribeye
finished with garlic butter.</p>
          <div class="mt-auto d-flex justify-content-between align-items-
center">
            <small class="badge bg-secondary">Difficulty: Hard</small>
            <button class="btn btn-outline-success btn-sm view-btn"
              data-title="Seared Ribeye Steak"
              data-steps='["Bring steak to room temp and season
generously.", "Heat pan until smoking hot and sear both sides.", "Add butter,
garlic, and thyme; baste for 2-3 minutes.", "Rest 5-10 minutes before
slicing." ]'
              data-ingredients="Ribeye,Butter,Thyme,Garlic,Salt,Pepper">
              View
            </button>
          </div>
        </div>
      </div>
    </div>

    <!-- 3 -->
    <div class="col-md-4 recipe-card" data-category="lunch" data-
name="Salmon Poke Bowl" data-ingredients="Sushi-grade
salmon,Rice,Avocado,Edamame,So y sauce,Sesame oil">
      <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
          
          <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
      </div>
    </div>

```

```

        <div class="card-body d-flex flex-column">
            <h5 class="card-title">Salmon Poke Bowl</h5>
            <p class="card-text text-muted small">Fresh cubes of salmon over
seasoned rice with crunchy veg.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
                <small class="badge bg-secondary">Difficulty: Easy</small>
                <button class="btn btn-outline-success btn-sm view-btn"
                    data-title="Salmon Poke Bowl"
                    data-steps='["Cook and season sushi rice.", "Marinate diced
salmon in soy, sesame oil and chili.", "Assemble rice, salmon, avocado, edamame
and garnish.", "Drizzle extra sauce and enjoy chilled."]'
                    data-ingredients="Sushi-grade salmon,Rice,Avocado,Edamame,Soy
sauce,Sesame oil">
                    View
                </button>
            </div>
        </div>
    </div>
</div>

<!-- 4 -->
<div class="col-md-4 recipe-card" data-category="dessert" data-
name="Classic Cheesecake" data-ingredients="Cream cheese,Sugar,Eggs,Graham
crackers,Butter,Vanilla">
    <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
            
            <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
        <div class="card-body d-flex flex-column">
            <h5 class="card-title">Classic Cheesecake</h5>
            <p class="card-text text-muted small">Silky, dense cheesecake with
buttery crust.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
                <small class="badge bg-secondary">Difficulty: Medium</small>
                <button class="btn btn-outline-success btn-sm view-btn"
                    data-title="Classic Cheesecake"

```



```

        data-steps='["Prepare and press graham crust into a springform
pan.", "Beat cream cheese with sugar until smooth.", "Add eggs one at a time and
vanilla.", "Bake in a water bath until set; chill thoroughly."]'
        data-ingredients="Cream cheese, Sugar, Eggs, Graham
crackers, Butter, Vanilla">
            View
        </button>
    </div>
</div>
</div>
</div>
</div>

<!-- 5 -->
<div class="col-md-4 recipe-card" data-category="dessert" data-
name="Tiramisu" data-
ingredients="Mascarpone, Espresso, Savoiardi, Sugar, Cocoa, Mascarpone">
    <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
            
            <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
        <div class="card-body d-flex flex-column">
            <h5 class="card-title">Tiramisu</h5>
            <p class="card-text text-muted small">Luxurious layers of
espresso-soaked ladyfingers and mascarpone.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
                <small class="badge bg-secondary">Difficulty: Medium</small>
                <button class="btn btn-outline-success btn-sm view-btn"
                    data-title="Tiramisu"
                    data-steps='["Whip mascarpone with sugar; fold in whipped
cream.", "Briefly dip ladyfingers in espresso.", "Layer fingers and mascarpone
mixture.", "Chill at least 4 hours and dust with cocoa."]'
                    data-ingredients="Mascarpone, Espresso, Savoiardi, Sugar, Cocoa">
                    View
                </button>
            </div>
        </div>
    </div>
</div>

```

```

        <!-- 6 -->
        <div class="col-md-4 recipe-card" data-category="breakfast" data-
name="Avocado Toast with Poached Egg" data-
ingredients="Bread,Avocado,Egg,Chili flakes,Lemon,Olive oil">
            <div class="card h-100 shadow-sm">
                <div class="card-img-top-wrapper">
                    
                <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
            </div>
            <div class="card-body d-flex flex-column">
                <h5 class="card-title">Avocado Toast & Poached Egg</h5>
                <p class="card-text text-muted small">Creamy smash with a runny
poached egg – simple luxury.</p>
                <div class="mt-auto d-flex justify-content-between align-items-
center">
                    <small class="badge bg-secondary">Difficulty: Easy</small>
                    <button class="btn btn-outline-success btn-sm view-btn"
                        data-title="Avocado Toast with Poached Egg"
                        data-steps='["Toast bread until golden.", "Smash avocado with
lemon, salt, and pepper.", "Poach egg to desired doneness.", "Assemble toast,
top with egg and chili flakes."]'
                        data-ingredients="Bread,Avocado,Egg,Chili flakes,Lemon,Olive
oil">
                        View
                    </button>
                </div>
            </div>
        </div>

        <!-- 7 -->
        <div class="col-md-4 recipe-card" data-category="lunch" data-name="Sushi
– Salmon Nigiri" data-ingredients="Sushi rice,Sushi-grade salmon,Rice
vinegar,Salt,Sugar,Wasabi">
            <div class="card h-100 shadow-sm">
                <div class="card-img-top-wrapper">
                    
                <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
            </div>

```

```

        <div class="card-body d-flex flex-column">
            <h5 class="card-title">Salmon Nigiri</h5>
            <p class="card-text text-muted small">Hand-formed nigiri with
delicate salmon slices.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
                <small class="badge bg-secondary">Difficulty: Hard</small>
                <button class="btn btn-outline-success btn-sm view-btn"
                    data-title="Sushi – Salmon Nigiri"
                    data-steps='["Season and cool sushi rice.", "Slice salmon
thinly against the grain.", "Form rice oblong shapes.", "Press salmon onto rice
and serve with soy/wasabi."]'
                    data-ingredients="Sushi rice,Sushi-grade salmon,Rice
vinegar,Salt,Sugar,Wasabi">
                    View
                </button>
            </div>
        </div>
    </div>
</div>

<!-- 8 -->
<div class="col-md-4 recipe-card" data-category="snack" data-
name="Gourmet Bruschetta" data-ingredients="Baguette,Tomato,Basil,Olive
oil,Garlic,Balsamic">
    <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
            
            <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
        <div class="card-body d-flex flex-column">
            <h5 class="card-title">Gourmet Bruschetta</h5>
            <p class="card-text text-muted small">Toasty baguette with herby
tomato confit and balsamic glaze.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
                <small class="badge bg-secondary">Difficulty: Easy</small>
                <button class="btn btn-outline-success btn-sm view-btn"
                    data-title="Gourmet Bruschetta"

```

```

        data-steps='["Toast baguette slices.", "Mix diced tomato,
basil, garlic, olive oil.", "Top bread with tomato mix and drizzle
balsamic.", "Serve immediately. "]'
        data-ingredients="Baguette, Tomato, Basil, Olive
oil, Garlic, Balsamic">
            View
        </button>
    </div>
</div>
</div>
</div>
</div>

<!-- 9 -->
<div class="col-md-4 recipe-card" data-category="dessert" data-
name="Dark Chocolate Soufflé" data-ingredients="Dark
chocolate, Eggs, Butter, Sugar, Flour">
    <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
            
            <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
        <div class="card-body d-flex flex-column">
            <h5 class="card-title">Dark Chocolate Soufflé</h5>
            <p class="card-text text-muted small">Voluminous, airy and
intensely chocolaty – theatrical dessert.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
                <small class="badge bg-secondary">Difficulty: Hard</small>
                <button class="btn btn-outline-success btn-sm view-btn"
                    data-title="Dark Chocolate Soufflé"
                    data-steps='["Preheat oven and butter ramekins; dust with
sugar.", "Melt chocolate with butter.", "Whip egg whites with sugar until
stiff.", "Fold whites into chocolate gently and bake until risen." ]'
                    data-ingredients="Dark chocolate, Eggs, Butter, Sugar, Flour">
                    View
                </button>
            </div>
        </div>
    </div>
</div>

```

```

    <!-- 10 -->
    <div class="col-md-4 recipe-card" data-category="lunch" data-name="Herb-
Crusted Lamb Chops" data-ingredients="Lamb
chops,Parsley,Thyme,Breadcrumbs,Garlic,Olive oil">
      <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
          
          <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
        <div class="card-body d-flex flex-column">
          <h5 class="card-title">Herb-Crusted Lamb Chops</h5>
          <p class="card-text text-muted small">Crisp herb crust with
succulent lamb – restaurant style.</p>
          <div class="mt-auto d-flex justify-content-between align-items-
center">
            <small class="badge bg-secondary">Difficulty: Medium</small>
            <button class="btn btn-outline-success btn-sm view-btn"
              data-title="Herb-Crusted Lamb Chops"
              data-steps='["Coat chops with olive oil, press herb-breadcrum
mix on each side.", "Sear in pan to form crust, finish in oven.", "Rest briefly
and serve with jus."]'
              data-ingredients="Lamb
chops,Parsley,Thyme,Breadcrumbs,Garlic,Olive oil">
              View
            </button>
          </div>
        </div>
      </div>
    </div>

    <!-- 11 -->
    <div class="col-md-4 recipe-card" data-category="snack" data-
name="Smoked Salmon Crostini" data-ingredients="Baguette,Smoked salmon,Crème
fraîche,Dill,Lemon,Zest">
      <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
          
          <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
      </div>
    </div>

```

```

        <div class="card-body d-flex flex-column">
            <h5 class="card-title">Smoked Salmon Crostini</h5>
            <p class="card-text text-muted small">Elegant bites with cream,
citrus and herbs.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
                <small class="badge bg-secondary">Difficulty: Easy</small>
                <button class="btn btn-outline-success btn-sm view-btn"
                    data-title="Smoked Salmon Crostini"
                    data-steps='["Toast baguette slices.", "Spread crème fraîche,
top with smoked salmon and dill.", "Finish with lemon zest."]'
                    data-ingredients="Baguette, Smoked salmon, Crème
fraîche, Dill, Lemon">
                    View
                </button>
            </div>
        </div>
    </div>
</div>

<!-- 12 -->
<div class="col-md-4 recipe-card" data-category="dinner" data-
name="Lobster Thermidor" data-ingredients="Lobster, Butter, Shallots, White
wine, Cream, Cheese">
    <div class="card h-100 shadow-sm">
        <div class="card-img-top-wrapper">
            
            <button class="fav-btn btn btn-sm" aria-label="favorite"><i
class="bi bi-star"></i></button>
        </div>
        <div class="card-body d-flex flex-column">
            <h5 class="card-title">Lobster Thermidor</h5>
            <p class="card-text text-muted small">Indulgent, creamy lobster
bake with cheese crust.</p>
            <div class="mt-auto d-flex justify-content-between align-items-
center">
                <small class="badge bg-secondary">Difficulty: Hard</small>
                <button class="btn btn-outline-success btn-sm view-btn"
                    data-title="Lobster Thermidor"
                    data-steps='["Poach lobster and remove meat from
shells.", "Sauté shallots, deglaze with wine and add cream.", "Combine lobster,
sauce, return to shell, top with cheese and broil."]'

```

```

        data-ingredients="Lobster,Butter,Shallots,White
wine,Cream,Cheese">
        View
    </button>
</div>
</div>
</div>
</div>

</div>
</main>

<!-- MODAL: Step-by-step viewer -->
<div class="modal fade" id="recipeModal" tabindex="-1" aria-hidden="true">
    <div class="modal-dialog modal-lg modal-dialog-centered">
        <div class="modal-content border-0 shadow-lg">
            <div class="modal-header">
                <h5 class="modal-title" id="modalTitle">Recipe</h5>
                <div class="d-flex align-items-center gap-2">
                    <button id="modalFav" class="btn btn-outline-warning btn-sm"
title="Favorite"><i class="bi bi-star"></i></button>
                    <button type="button" class="btn-close" data-bs-dismiss="modal"
aria-label="Close"></button>
                </div>
            </div>
            <div class="modal-body">
                <div class="d-flex gap-4 flex-column flex-md-row">
                    <div class="flex-fill">
                        <h6>Ingredients</h6>
                        <ul id="modalIngredients" class="list-unstyled small text-muted
mb-3"></ul>

                        <h6>Step-by-step</h6>
                        <div id="stepBox" class="p-3 rounded-3 bg-light border">
                            <div id="stepCounter" class="small text-muted mb-2"></div>
                            <div id="stepText" class="fs-6"></div>
                        </div>

                        <div class="mt-3 d-flex justify-content-between">
                            <div>
                                <button id="prevStep" class="btn btn-sm btn-outline-
secondary">Prev</button>

```

```

        <button id="nextStep" class="btn btn-sm btn-
primary">Next</button>
    </div>
    <div class="d-flex gap-2">
        <button id="openAll" class="btn btn-sm btn-outline-
info">Show All Steps</button>
        <button id="closeModal" class="btn btn-sm btn-outline-
secondary" data-bs-dismiss="modal">Close</button>
    </div>
</div>
<div class="w-50 d-none d-md-block">
    <div id="modalImage" class="h-100 rounded-3 overflow-hidden">
        <!-- background set via JS -->
    </div>
</div>
</div>
<div class="modal-footer small text-muted">
    Mark favorites with the star.
</div>
</div>
</div>
</div>

<!-- FOOTER -->
<footer class="py-4 text-center small text-muted">
    © 2025 Bougie Recipe Book
</footer>

<!-- Scripts -->
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0/dist/js/bootstrap.bundle.min
.js"></script>
<script src="script.js"></script>
</body>
</html>

```

11.2 CSS code:

```

:root{
    --bg:#fafafa; --card:#ffffff; --muted:#000000; --accent:#1f6feb;
    --glass: rgba(0, 0, 0, 0.6);

```



```

}
body.light{ background: var(--bg); color:#111; }
body.dark{
  --bg:#0b0f14; --card:#0f1720; --muted:#000000; --accent:#7cc4ff; --glass:
  rgba(255,255,255,0.03);
  background: linear-gradient(180deg,#051018 0%, #07121a 100%); color:#e6eef8;
}
body{ font-family: Inter, system-ui, -apple-system, "Segoe UI", Roboto,
"Helvetica Neue", Arial; transition: background 300ms ease, color 300ms ease;
}

/* NAV / HERO */
.navbar { background: transparent !important; }
.hero{
  height:240px; position:relative; margin-bottom:1.5rem; overflow:hidden;
  display:block; background-image:
url('https://source.unsplash.com/1600x600/?gourmet,food'); background-
size:cover; background-position:center;
}
.hero .overlay{ position:absolute; inset:0; background:linear-gradient(180deg,
rgba(0,0,0,0.35), rgba(0,0,0,0.45)); }
.hero .hero-content{ position:relative; z-index:3; padding:3rem 1rem; }
.hero h1{ letter-spacing:0.6px; text-shadow:0 6px 20px rgba(0,0,0,0.4); }

/* CARDS */
.recipe-card .card{ border-radius:14px; overflow:hidden; transition: transform
.22s cubic-bezier(.2,.9,.2,1), box-shadow .22s; }
.recipe-card .card:hover{ transform: translateY(-8px) scale(1.01); box-shadow:
0 20px 40px rgba(2,6,23,0.15); }
.card-img-top-wrapper{ position:relative; overflow:hidden; height:200px; }
.card-img-top{ width:100%; height:100%; object-fit:cover; display:block;
transition: transform .6s ease; }
.card:hover .card-img-top{ transform: scale(1.06) rotate(.5deg); filter:
saturate(1.05) contrast(1.02); }

/* Favorite button over image */
.fav-btn{ position:absolute; top:10px; right:10px; z-index:5;
background:rgba(255,255,255,0.9); border-radius:50%; width:38px; height:38px;
display:flex; align-items:center; justify-content:center; border:none;
transition: transform .12s; }
.fav-btn i{ color:#ffb400; font-size:18px; opacity:.45; transition: opacity
.12s; }
.fav-btn.active{ transform: scale(1.08); background:var(--accent); }

```

```

.fav-btn.active i{ color:#fff; opacity:1; }

/* Modal */
#modalImage{ background-size:cover; background-position:center; min-
height:220px; border-radius:8px; }
#stepBox{ min-height:90px; }

/* Buttons */
.btn-outline-success{ border-radius:10px; }
.view-btn{ border-radius:10px; }

/* accessibility small tweaks */
.badge{ font-size:12px; }

/* responsive */
@media (max-width:767px){
  .hero{ height:180px; }
  .card-img-top-wrapper{ height:160px; }
  #modalImage{ display:none !important; }
}

```

11.3 JavaScript code:

```

// --- Utility & initial state ---
const $ = window.jQuery;
const FAVORITES_KEY = 'bougie_favorites_v1';
let favorites = new Set(JSON.parse(localStorage.getItem(FAVORITES_KEY) ||
'[]'));
let currentSteps = [];
let currentIndex = 0;
let currentRecipeName = '';
let currentImageUrl = '';

// --- DOM refs ---
const $cards = $('#cards');
const $search = $('#searchInput');
const $category = $('#categoryFilter');
const $randomBtn = $('#randomBtn');
const $darkToggle = $('#darkToggle');
const $darkIcon = $('#darkIcon');
const $recipeModal = new bootstrap.Modal($('#recipeModal')[0], { keyboard:true
});
const $modalTitle = $('#modalTitle');

```

```

const $modalIngredients = $('#modalIngredients');
const $stepText = $('#stepText');
const $stepCounter = $('#stepCounter');
const $prevStep = $('#prevStep');
const $nextStep = $('#nextStep');
const $openAll = $('#openAll');
const $modalImage = $('#modalImage');
const $modalFav = $('#modalFav');

// --- Initialize favorites UI on page load ---
function initFavoritesUI(){
    $('.recipe-card').each(function(){
        const name = $(this).data('name');
        const $btn = $(this).find('.fav-btn');
        if(favorites.has(name)) { $btn.addClass('active');
$btn.find('i').removeClass('bi-star').addClass('bi-star-fill'); }
        else { $btn.removeClass('active'); $btn.find('i').addClass('bi-
star').removeClass('bi-star-fill'); }
    });
}
initFavoritesUI();

// --- Favorite toggling ---
$cards.on('click', '.fav-btn', function(e){
    e.preventDefault(); e.stopPropagation();
    const $card = $(this).closest('.recipe-card');
    const name = $card.data('name');
    if(favorites.has(name)){ favorites.delete(name);
$(this).removeClass('active').find('i').removeClass('bi-star-
fill').addClass('bi-star'); }
    else { favorites.add(name);
$(this).addClass('active').find('i').removeClass('bi-star').addClass('bi-star-
fill'); }
    localStorage.setItem(FAVORITES_KEY, JSON.stringify([...favorites]));
});

// --- Open modal from card view button ---
$cards.on('click', '.view-btn', function(){
    const $btn = $(this);
    const title = $btn.data('title');
    const steps = JSON.parse(JSON.stringify($btn.data('steps'))); // sometimes
jQuery returns string; ensure array

```

```

    const ingredientsString = $btn.attr('data-ingredients') ||
$btn.data('ingredients') || '';
    const ingredientsArr =
String(ingredientsString).split(',').map(s=>s.trim()).filter(Boolean);

    // handle steps if it's a string (some data attributes are strings)
    let stepsArr;
    if (typeof steps === 'string') {
        try { stepsArr = JSON.parse(steps); }
        catch { stepsArr = steps.split('|').map(s=>s.trim()).filter(Boolean); }
    } else {
        stepsArr = steps;
    }

    // if image exists, derive from parent card img
    const imgUrl = $(this).closest('.card').find('.card-img-top').attr('src') ||
'';

    openRecipeModal(title, ingredientsArr, stepsArr, imgUrl);
});

// --- Random recipe ---
$randomBtn.on('click', function(){
    const visible = $('.recipe-card:visible');
    if(!visible.length) { return alert('No recipes visible to choose from.')}
    const rand = visible.eq(Math.floor(Math.random() * visible.length));
    rand.find('.view-btn').trigger('click');
});

// --- Modal open / populate ---
function openRecipeModal(title, ingredients, steps, image){
    currentSteps = steps || [];
    currentIndex = 0;
    currentRecipeName = title;
    currentImageUrl = image || '';

    $modalTitle.text(title);
    // ingredients
    $modalIngredients.empty();
    ingredients.forEach(ing => { $modalIngredients.append(`<li>• ${ing}</li>`);
});

```

```

// show step 0
showStep(currentIndex);

// set modal image background
if(currentImageUrl){
  $modalImage.css('background-image', `url('${currentImageUrl}')`);
} else {
  $modalImage.css('background-image', 'none');
}

// set modal favorite button
updateModalFav();

$recipeModal.show();
}

// --- Step navigation ---
function showStep(i){
  if(!currentSteps || currentSteps.length === 0){
    $stepCounter.text('No step-by-step instructions available. ');
    $stepText.text('');
    $prevStep.prop('disabled', true);
    $nextStep.prop('disabled', true);
    return;
  }
  // clamp
  currentIndex = Math.max(0, Math.min(i, currentSteps.length - 1));
  $stepCounter.text(`Step ${currentIndex + 1} of ${currentSteps.length}`);
  $stepText.text(currentSteps[currentIndex]);
  $prevStep.prop('disabled', currentIndex === 0);
  $nextStep.prop('disabled', currentIndex === currentSteps.length - 1);
}

$prevStep.on('click', ()=> showStep(currentIndex - 1));
$nextStep.on('click', ()=> showStep(currentIndex + 1));

// show all steps in a quick alert-ish slide (simple)
$openAll.on('click', function(){
  if(!currentSteps || currentSteps.length === 0) return;
  const all = currentSteps.map((s,i)=> `${i+1}. ${s}`).join('\n\n');
  // open a new small window-like modal? Simpler: replace step area with all
  steps temporarily

```

```

$stepCounter.text('All Steps');
$stepText.html(all.replace(/\n/g, '<br>'));
$prevStep.prop('disabled', true); $nextStep.prop('disabled', true);
});

// modal favorite toggle
$modalFav.on('click', function(){
  if(!currentRecipeName) return;
  if(favorites.has(currentRecipeName)) favorites.delete(currentRecipeName);
  else favorites.add(currentRecipeName);
  localStorage.setItem(FAVORITES_KEY, JSON.stringify([...favorites]));
  initFavoritesUI();
  updateModalFav();
});

function updateModalFav(){
  if(favorites.has(currentRecipeName)) { $modalFav.addClass('active btn-
warning').removeClass('btn-outline-warning').html('<i class="bi bi-star-
fill"></i>'); }
  else { $modalFav.removeClass('active btn-warning').addClass('btn-outline-
warning').html('<i class="bi bi-star"></i>'); }
}

// when modal closes, reset to currentIndex view
$('#recipeModal').on('hidden.bs.modal', function(){
  showStep(0);
});

// --- Search & Filters (search in name + ingredients attributes) ---
function applyFilters(){
  const q = $search.val().trim().toLowerCase();
  const cat = $category.val();
  $('.recipe-card').each(function(){
    const name = ($(this).data('name') || '').toString().toLowerCase();
    const ingr = ($(this).attr('data-ingredients') ||
$(this).data('ingredients') || '').toString().toLowerCase();
    const catMatch = !cat || $(this).data('category') === cat;
    const textMatch = !q || name.includes(q) || ingr.includes(q);
    if(catMatch && textMatch) $(this).show();
    else $(this).hide();
  });
}
$search.on('input', applyFilters);

```

```

$category.on('change', applyFilters);

// init theme
const savedTheme = localStorage.getItem(THEME_KEY) || 'light';
setTheme(savedTheme);

// --- keyboard navigation for modal: left/right -->
$(document).on('keydown', function(e){
  // left arrow
  if($('#recipeModal').hasClass('show')){
    if(e.key === 'ArrowLeft') $prevStep.trigger('click');
    if(e.key === 'ArrowRight') $nextStep.trigger('click');
  }
});

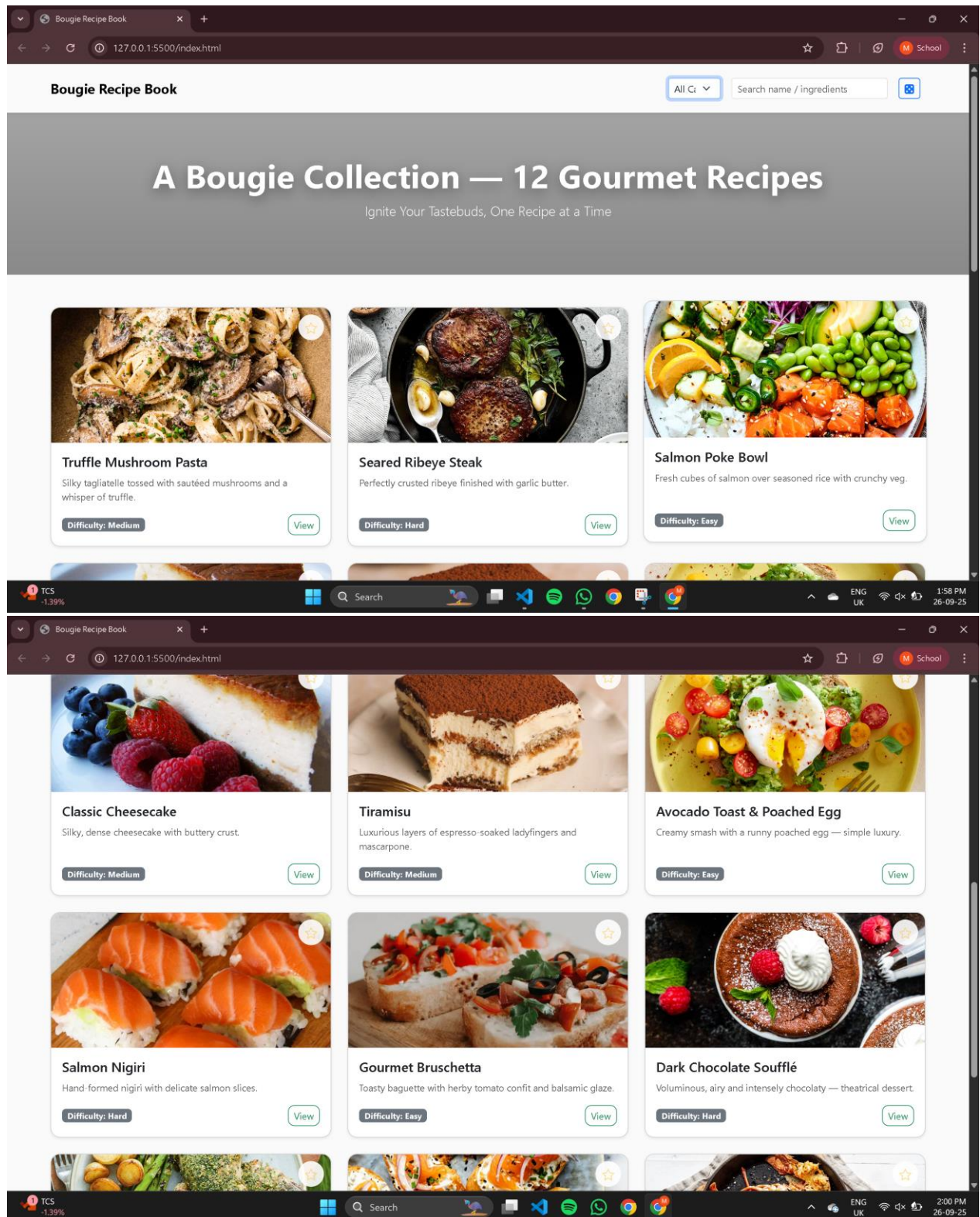
// small UX: clicking a card (not the buttons) opens the modal
$cards.on('click', '.card', function(e){
  // ignore clicks on buttons
  if($(e.target).closest('button, .view-btn, .fav-btn').length) return;
  $(this).find('.view-btn').trigger('click');
});

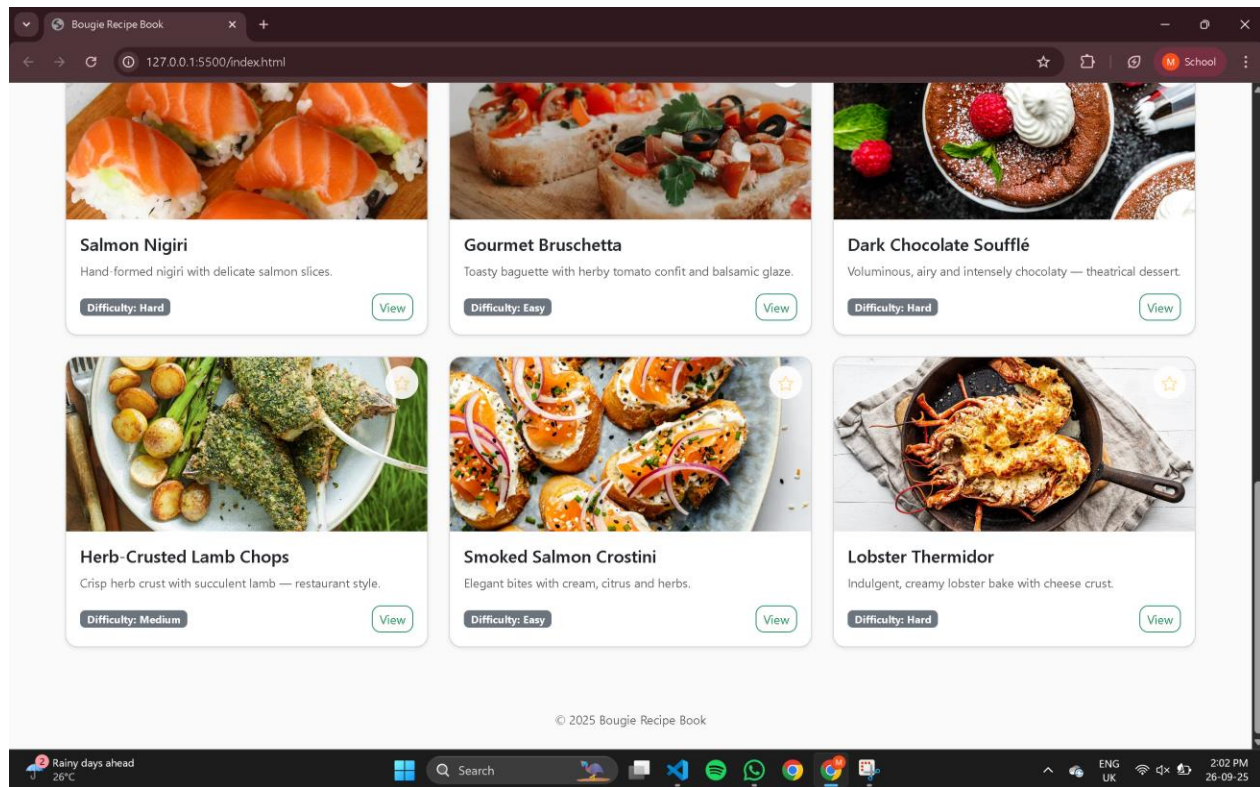
// initial small animation / reveal
$('.recipe-card').css({opacity:0,
transform:'translateY(10px)'}).each(function(i){
  $(this).delay(i*60).animate({opacity:1, transform:'translateY(0)'},
{duration:450, step: function(now, fx){
    $(this).css('transform', `translateY(${ (1-now) * 8 }px)`);
  }});
});

// ensure UI reflects favorites if user toggles in another tab
window.addEventListener('storage', () => {
  favorites = new Set(JSON.parse(localStorage.getItem(FAVORITES_KEY) ||
'[]'));
  initFavoritesUI();
});

```


9. Screenshots of Final Output





11. Conclusion

The **Recipe Book** website showcases how a dynamic, responsive, and user-friendly interface can be built using core front-end technologies. Implementing features like searchable recipe listings, category filters, and detailed views reinforced essential concepts such as semantic HTML structuring, modular CSS styling, and interactive UI behaviour. This mini-project deepened practical skills in responsive design, accessibility-first development, and client-side scripting—laying a strong foundation for more advanced web applications and UI/UX design work.

12. References

- L&T LMS: <https://learn.Intedutech.com/Landing/MyCours>
- MDN Web Docs – HTML, CSS, JavaScript, Bootstrap & jQuery References
- Google Fonts – Web Typography Guidelines