Project Report: FlavorFusion Recipe Web Application

AIM

To design and implement an interactive web-based recipe application named "FlavorFusion" that allows users to explore, search, and view detailed animated recipes with a user-friendly interface.

OBJECTIVE

The main objectives of this project are:

- - To provide an attractive and responsive design for recipe browsing.
- - To include search functionality to filter recipes.
- - To display recipe details using a modal popup.
- - To utilize modern CSS animations and layout techniques for better UX.

INPUT / OUTPUT

INPUT:

- User searches recipe by keyword.

- User clicks on a recipe to view detailed content.

OUTPUT:

- Displays filtered list of matching recipes.

- Shows selected recipe image, description, ingredients, and instructions in a modal popup.

PARAMETERS USED

- HTML: Structure of the web page.

- CSS: Styling and animation effects for visual appeal.

- JavaScript: Dynamic rendering, search functionality, and modal handling.

- Font Awesome: Icons used in the interface.

- External Images: Recipe thumbnails.

PROCEDURE CODE

```
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>FlavorFusion</title>

    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.4.0/css/all.min.css">

    <style>

        :root { --primary: #ff6b6b; --secondary: #4ecdc4; --dark: #292f36; --light: #f7fff7; --accent: #ffd166; }

        * { margin: 0; padding: 0; box-sizing: border-box; font-family: 'Segoe UI', sans-serif; }

        body { background: var(--light); color: var(--dark); overflow-x: hidden; }



        header { background: linear-gradient(135deg, var(--primary), var(--accent)); color: white; padding: 2rem; text-align: center; position: relative; overflow: hidden; box-shadow: 0 4px 20px rgba(0,0,0,0.1); }

        h1 { font-size: 3.5rem; margin-bottom: 1rem; text-shadow: 2px 2px 4px rgba(0,0,0,0.2); animation: fadeInDown 1s; }

        .floating-icon { position: absolute; opacity: 0.1; animation: float 10s infinite; }



        .container { max-width: 1200px; margin: 2rem auto; padding: 0 2rem; }

        .recipe-grid { display: grid; grid-template-columns: repeat(auto-fill, minmax(300px, 1fr)); gap: 2rem; margin-bottom: 3rem; }

        .recipe-card { background: white; border-radius: 15px; overflow: hidden; box-shadow: 0 10px 30px rgba(0,0,0,0.1); transition: all 0.5s; opacity: 0; transform: translateY(50px); animation: fadeInUp 0.8s forwards; }
```

.recipe-card:hover { transform: translateY(-10px) !important; box-shadow: 0 15px 40px rgba(0,0,0,0.15); }

.recipe-img { height: 200px; width: 100%; object-fit: cover; transition: transform 0.5s; }

.recipe-card:hover .recipe-img { transform: scale(1.05); }

.search-container { margin: 1rem auto 2rem; max-width: 600px; position: relative; }

#search { width: 100%; padding: 1rem; border: none; border-radius: 50px; font-size: 1rem; box-shadow: 0 4px 15px rgba(0,0,0,0.1); }

.search-btn { position: absolute; right: 10px; top: 50%; transform: translateY(-50%); background: var(--dark); color: white; border: none; border-radius: 50%; width: 40px; height: 40px; cursor: pointer; }

.contact { background: var(--dark); color: white; padding: 3rem 2rem; text-align: center; }

.contact-form { max-width: 500px; margin: 0 auto; }

.contact-form input, .contact-form textarea { width: 100%; padding: 1rem; margin: 0.5rem 0; border: none; border-radius: 5px; }

.contact-form button { background: var(--primary); color: white; border: none; padding: 1rem 2rem; border-radius: 50px; cursor: pointer; margin-top: 1rem; }

.modal { position: fixed; top: 0; left: 0; width: 100%; height: 100%; background: rgba(0,0,0,0.8); display: none; justify-content: center; align-items: center; z-index: 1000; }

.modal.active { display: flex; animation: fadeIn 0.3s; }

.modal-content { background: white; width: 90%; max-width: 800px; max-height: 90vh; border-radius: 15px; overflow-y: auto; transform: scale(0.8); animation: scaleIn 0.3s forwards; }

```
        @keyframes fadeIn { from { opacity: 0; } to { opacity: 1; } }

        @keyframes fadeInDown { from { opacity: 0; transform: translateY(-50px); } to { opacity: 1; transform: translateY(0); } }

        @keyframes fadeInUp { from { opacity: 0; transform: translateY(50px); } to { opacity: 1; transform: translateY(0); } }

        @keyframes float { 0%,100% { transform: translateY(0) rotate(0deg); } 50% { transform: translateY(-20px) rotate(5deg); } }

        @keyframes scaleIn { to { transform: scale(1); } }


        @media (max-width: 768px) { h1 { font-size: 2.5rem; } .recipe-grid { grid-template-columns: 1fr; } }
    </style>
</head>
<body>
    <header>
        <div class="floating-icon"><i class="fas fa-utensils"></i></div>
        <div class="floating-icon"><i class="fas fa-cheese"></i></div>
        <h1>FlavorFusion</h1>
        <p>Discover delicious animated recipes</p>
    </header>

    <div class="container">
        <div class="search-container">
            <input type="text" id="search" placeholder="Search recipes...">
            <button class="search-btn" onclick="searchRecipes()"><i class="fas fa-search"></i></button>
        </div>
```

```
        <div class="recipe-grid" id="recipeGrid"></div>
    </div>

    <section class="contact" id="contact">
        <h2>Contact Us</h2>
        <div class="contact-form">
            <input type="text" placeholder="Your Name">
            <input type="email" placeholder="Your Email">
            <textarea placeholder="Your Message" rows="5"></textarea>
            <button onclick="alert('Message sent!')">Send Message</button>
        </div>
    </section>

    <div class="modal" id="recipeModal">
        <div class="modal-content">
            <button onclick="closeModal()"
style="position:absolute;top:15px;right:15px;background:var(--
primary);color:white;border:none;width:40px;height:40px;border-
radius:50%;cursor:pointer;"><i class="fas fa-times"></i></button>
            <img src="" id="modalImg" style="width:100%;height:300px;object-
fit:cover;">
            <div style="padding:2rem;" id="modalBody"></div>
        </div>
    </div>

    <script>
```

```
const recipes = [
    {
        title: "Creamy Garlic Pasta", cookTime: "25 mins", servings: 4,
        image: "https://images.unsplash.com/photo-1611270629569-8b357cb88da9?ixlib=rb-4.0.3&auto=format&fit=crop&w=1000&q=80",
        desc: "Rich and creamy pasta with garlic and parmesan.",
        ingredients: ["12 oz pasta", "3 tbsp butter", "4 cloves garlic", "1 cup cream", "1 cup parmesan"],
        instructions: ["Cook pasta", "Melt butter", "Add garlic", "Mix in cream", "Add cheese"]
    },
    {
        title: "Avocado Toast", cookTime: "10 mins", servings: 2,
        image: "https://images.unsplash.com/photo-1525351326368-efbb5cb6814d?ixlib=rb-4.0.3&auto=format&fit=crop&w=1000&q=80",
        desc: "Simple breakfast with avocado and eggs on toast.",
        ingredients: ["2 bread slices", "1 avocado", "2 eggs", "1 tbsp oil", "Salt"],
        instructions: ["Toast bread", "Mash avocado", "Cook eggs", "Assemble"]
    },
    {
        title: "Beef Tacos", cookTime: "30 mins", servings: 4,
        image: "https://images.unsplash.com/photo-1565299585323-38d6b0865b47?ixlib=rb-4.0.3&auto=format&fit=crop&w=1000&q=80",
        desc: "Flavorful ground beef tacos with fresh salsa.",
        ingredients: ["1 lb beef", "8 tortillas", "1 cup lettuce", "1/2 cup cheese"],
        instructions: ["Cook beef", "Warm tortillas", "Add toppings"]
```

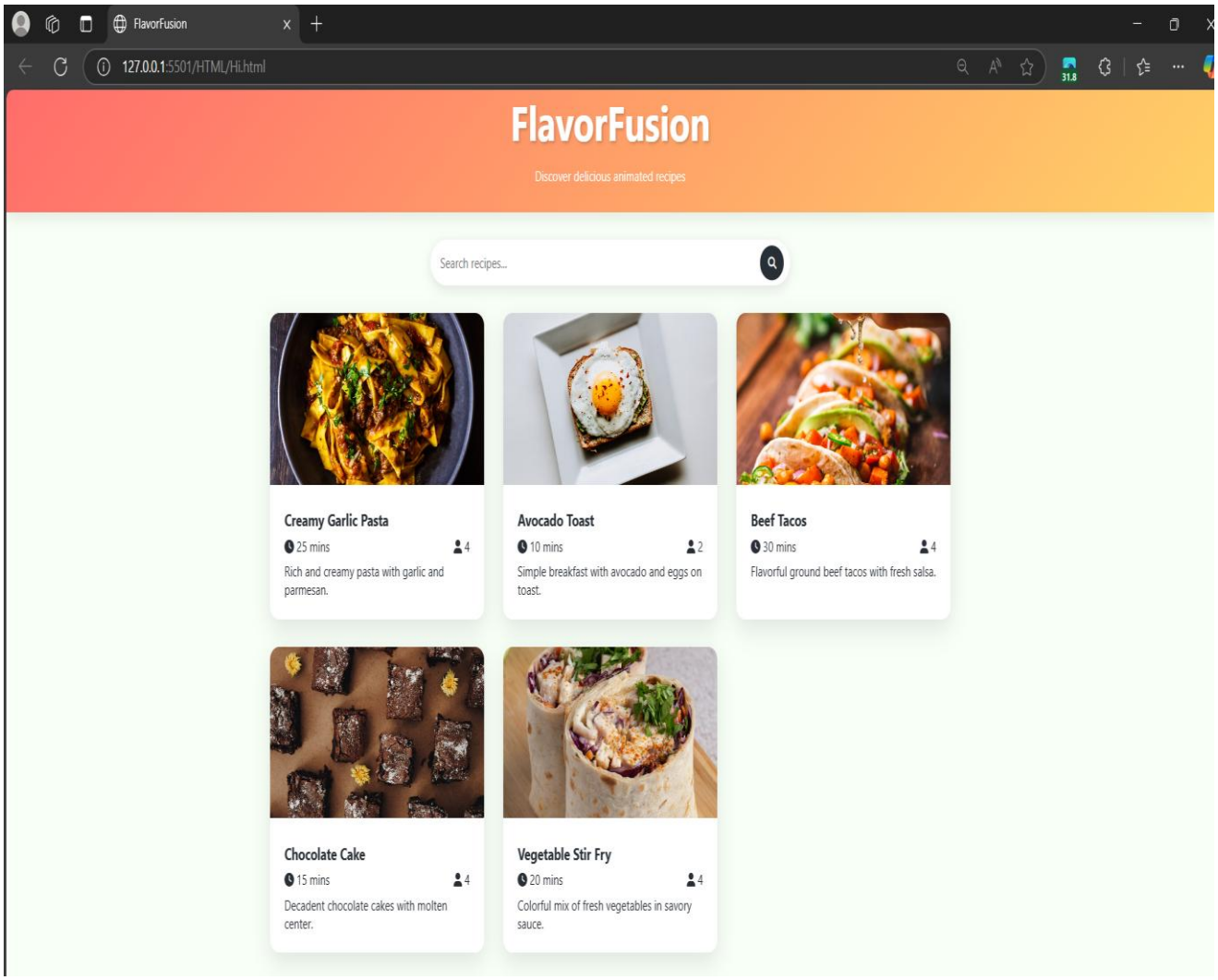
```
        },
        {
            title: "Chocolate Cake", cookTime: "15 mins", servings: 4,
            image: "https://images.unsplash.com/photo-1564355808539-22fda35bed7e?ixlib=rb-4.0.3&auto=format&fit=crop&w=1000&q=80",
            desc: "Decadent chocolate cakes with molten center.",
            ingredients: ["1/2 cup butter", "4 oz chocolate", "1 cup sugar", "2 eggs"],
            instructions: ["Melt butter", "Mix ingredients", "Bake"]
        }
    ];

    function displayRecipes(recipesToShow = recipes) {
        recipeGrid.innerHTML = '';
        recipesToShow.forEach((recipe, i) => {
            const card = document.createElement('div');
            card.className = 'recipe-card';
            card.style.animationDelay = ${i * 0.2}s;
            card.innerHTML = `
                <img src="${recipe.image}" class="recipe-img">
                <div style="padding:1.5rem;">
                    <h3>${recipe.title}</h3>
                    <div style="display:flex;justify-content:space-between;margin:0.5rem 0;">
                        <span><i class="fas fa-clock"></i> ${recipe.cookTime}</span>
                        <span><i class="fas fa-user"></i> ${recipe.servings}</span>
```

```
                </div>
                <p>${recipe.desc}</p>
            </div>
        `;
        card.addEventListener('click', () => openModal(recipe));
        recipeGrid.appendChild(card);
    });
}

function searchRecipes() {
    const term = document.getElementById('search').value.toLowerCase();
    const filtered = recipes.filter(recipe =>
        recipe.title.toLowerCase().includes(term) ||
        recipe.desc.toLowerCase().includes(term) ||
        recipe.ingredients.some(i => i.toLowerCase().includes(term))
    );
    displayRecipes(filtered);
}

function openModal(recipe) {
    modalImg.src = recipe.image;
    modalBody.innerHTML = `
        <h2>${recipe.title}</h2>
        <p><i class="fas fa-clock"></i> ${recipe.cookTime} | <i class="fas fa-user"></i> ${recipe.servings}</p>
```

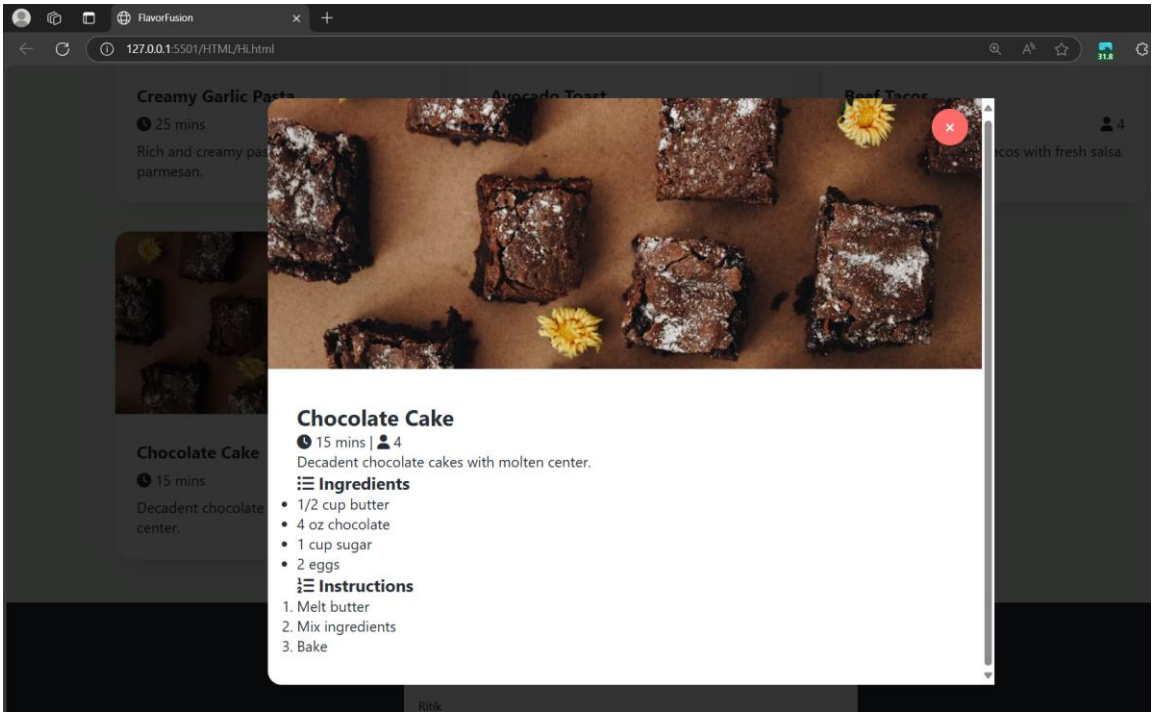
```
            <p>${recipe.desc}</p>
            <h3><i class="fas fa-list-ul"></i> Ingredients</h3>
            <ul>${recipe.ingredients.map(i => <li>${i}</li>).join('')}</ul>
            <h3><i class="fas fa-list-ol"></i> Instructions</h3>
            <ol>${recipe.instructions.map((i,n) => <li>${i}</li>).join('')}</ol>
        `;
        recipeModal.classList.add('active');
    }

    function closeModal() {
        recipeModal.classList.remove('active');
    }

    // Initialize
    displayRecipes();

    // Search when Enter is pressed
    document.getElementById('search').addEventListener('keyup', function(e) {
        if (e.key === 'Enter') searchRecipes();
    });
  </script>
</body>
</html>
```

OUTPUT-

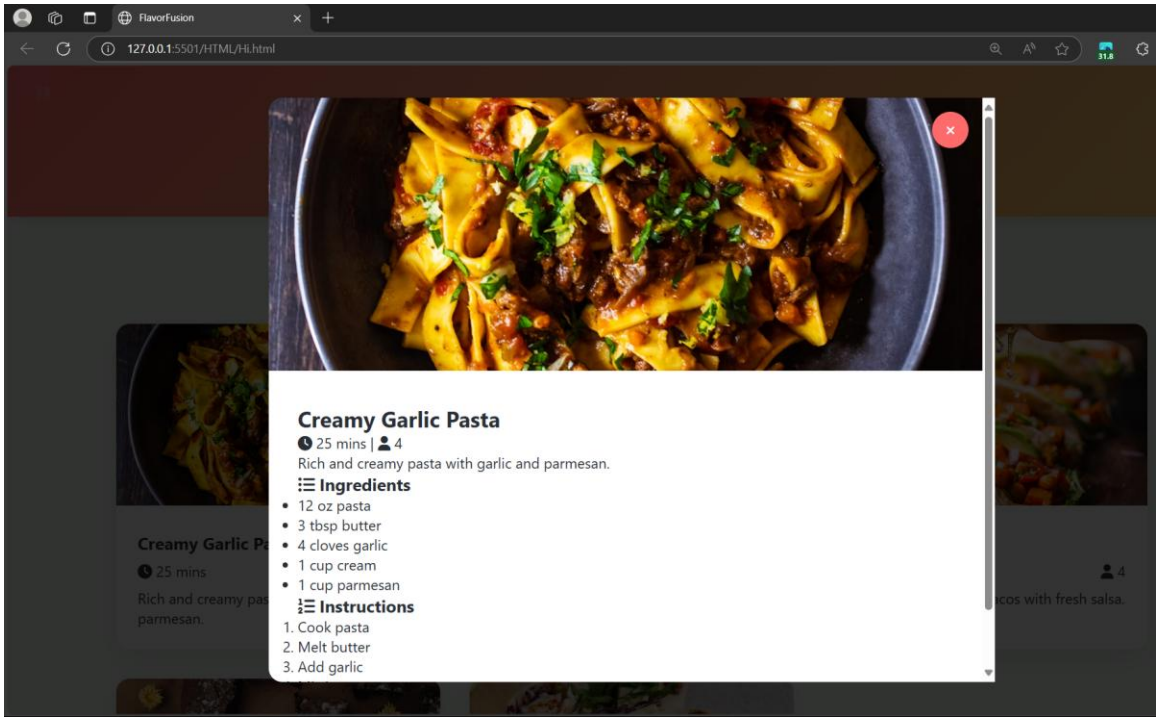
❖ Home Page-



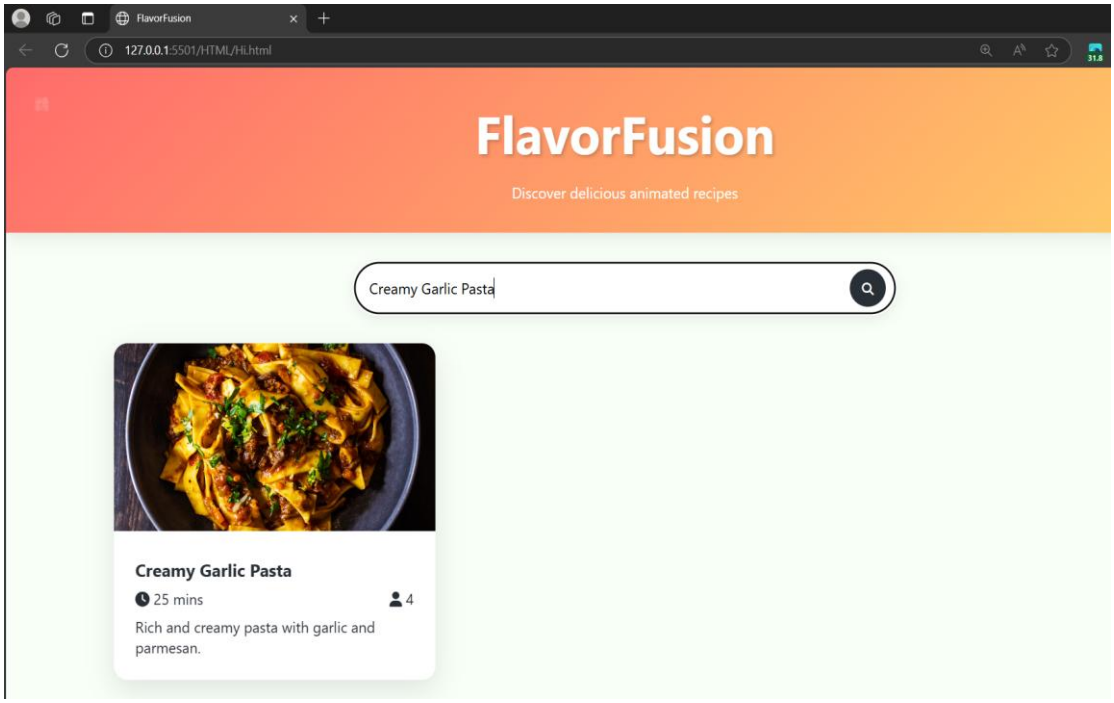
❖ Specific Dish Recipe-



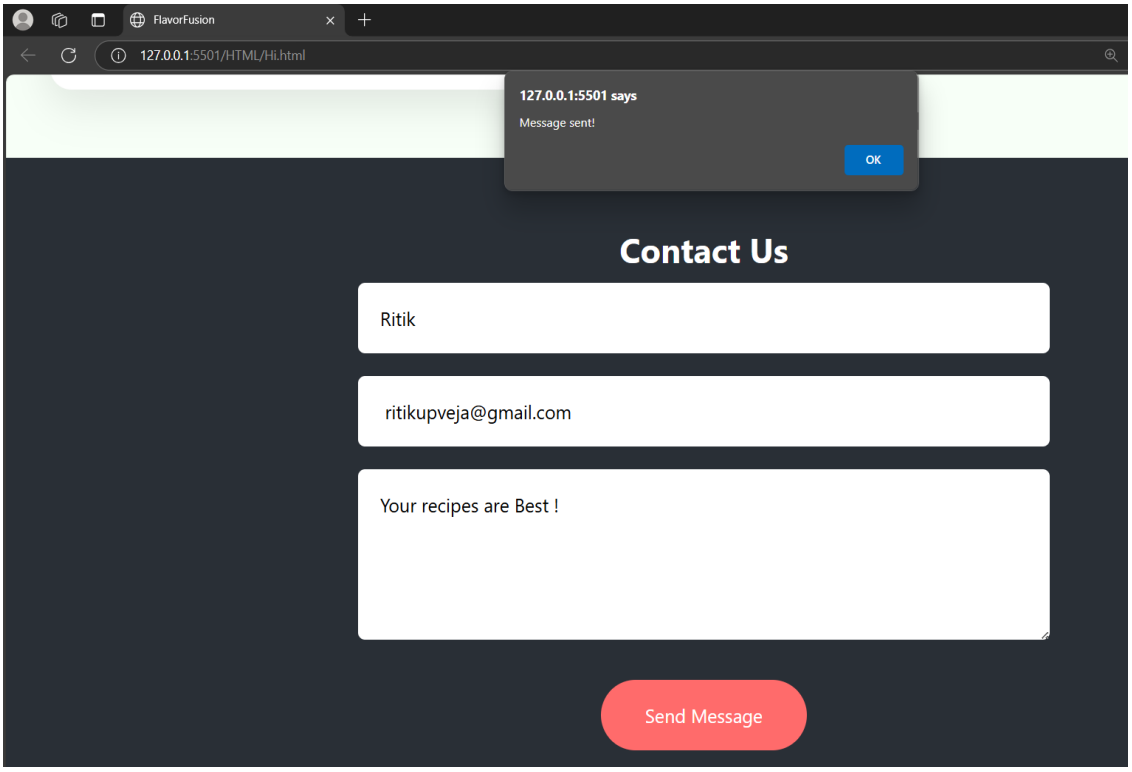
❖ Specific Dish Recipe-



❖ **Search bar-**



❖ **Contact us-**



CONCLUSION

The FlavorFusion project successfully demonstrates a responsive and interactive recipe website using HTML, CSS, and JavaScript. It meets the aim of allowing users to explore recipes visually and interactively, enhancing the user experience through animations and modal windows.

LEARNING OUTCOMES

- Gained hands-on experience in HTML, CSS, and JavaScript.
- Learned how to build and style responsive layouts.
- Understood DOM manipulation and event handling in JavaScript.
- Implemented search and filtering functionality dynamically.
- Applied CSS animations and transitions to enhance UI.