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Semester 2 Report of Project

Recipe Sharing Website Application

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Software System Practice

# **Abstract**

## **1.1 Development Background**

China has the largest population in the world, making up 18% of the world. With the economy and technology advancing quickly, people work an average of 48 hours per week. This indicates that, after distributing the average working hours among the elderly and children, workers face significant work pressure. So, making delicious food that can soothe and satisfy oneself in this limited free time becomes a challenge.

## 1.2 Develop Aims

The aim of this project is to provide users with a simple, efficient, full-stack, and secure web platform for sharing recipes. It enables users to create, share, comment, bookmark, rate, and search for recipes. In this report, I will outline the website's features, the technologies and methodologies used in the project development, and provide a detailed description of the development process.

# **Tools and Technologies**

## 2.1 React.js

React.js is a highly popular framework for building frontend web applications. It is a JavaScript toolkit developed and open-sourced by Facebook for creating frontend interfaces. Through reusable components and a range of efficient methods such as hooks, React.js integrates a component-centric, efficient, concise, and highly reusable UI building framework.

React.js provides great convenience for websites with its highly reusable components. Below is a table about the components used in this project.

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Table2.1 Components Table

## 2.2 Express

Express is a popular Node.js web application framework used to build reliable, flexible, and high-performance web applications and APIs. With its middleware support, Express enables modular and reusable functionality. It also features a handy routing system that speeds up development and enhances functionality. In this project, Express is primarily used to handle server-side API logic, user authentication, and connecting to the database.

## 2.3 MongoDB (Mongo Database)

MongoDB is a popular NoSQL (Not Only Structured Query Language) database that uses a document-oriented data storage model, suitable for various data storage needs. In this project, MongoDB's cloud storage feature ensures data security and flexibility. MongoDB integrates well with Express, allowing easy connection and operation with the database through official MongoDB drivers or other ORM (Object-Relational Mapping) libraries.

# **User Experience**

To facilitate user uploads, publishing, and bookmarking functionalities, this project categorizes visitors into two types: guests and logged-in users. Guests are only able to access limited functionalities, while logged-in users have access to all functionalities.

## 3.1 Guests

Guests refer to visitors who access the website as without having an account on the site. It's impossible to provide them with personalized recommendations without a website account. Additionally, they are limited to basic website functionalities, such as browsing, accessing, and categorically searching.

## 3.2 Logged-in Users

When users register and have an account on the website, they will have full access to the site's functionalities after logging in. These users can publish recipes, access their own user page, save their favorite recipes, post comments, and enjoy personalized recipe recommendations.

## 2.3 User Permission Flow Chart

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(Figure1 User Permission Flow Chart)

# Basic Pages

## Site Map Diagram

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(Figure2 Site Map Diagram)