

# **Sri Lanka Institute of Information Technology**

# Programming Applications and Framework IT3030

## **Initial Document**

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## 1. Introduction

In a world where culinary skills are as diverse as the cultures they stem from, FlavorFlow emerges as a vibrant platform for food enthusiasts to share, learn, and grow together. Whether you're a seasoned chef or a kitchen novice, FlavorFlow provides a space to showcase your culinary creations, document your learning journey, and connect with like-minded individuals. From mastering the art of baking to exploring exotic cuisines, FlavorFlow is more than just a skill-sharing platform—it's a community where passion for cooking meets the joy of learning.

## 2. Functional Requirements

FlavorFlow allows users to share and learn cooking skills through a variety of features:

- Users can upload up to 3 photos or short videos (max: 30 sec) per post and add descriptions for their shared content, such as recipes or cooking tips.
- Posts are categorized by cuisine type, such as Italian, Indian, or Vegan.
- Users can post updates on their cooking journey using predefined templates like
   "Completed a cooking tutorial" or "Learned a new recipe."
- Users can create and manage learning plans (e.g., "Learn French cuisine in 3 months") with topics, resources (e.g., YouTube links, blogs), and completion timelines.
- Users can like and comment on others' posts. Comments can be edited or deleted by the commenter, and post owners can delete comments on their posts.
- Each user has a profile page displaying their skill-sharing posts, activities, and learning progress. Users can follow others to stay updated on their content.

- Users receive real-time alerts for likes and comments on their posts.
- Users can create and join virtual cooking sessions, generating a Google Meet URL for live participation.
- OAuth 2.0 is used for secure login and user management.

## 3. Non-Functional Requirements

#### Security:

- User authentication is secured through OAuth 2.0, ensuring data privacy and protection against unauthorized access.
- Secure storage of user credentials and sensitive information.

#### Scalability:

- The system should handle a growing number of users and posts without performance degradation.
- Cloud-based architecture will be used for efficient scaling of user interactions and media storage.

#### • Performance:

- Fast response times for API requests (under 500ms) to ensure a smooth user experience.
- Efficient media handling, ensuring quick uploads and retrieval of photos/videos.

#### Usability:

- o A user-friendly interface with an intuitive design for easy navigation.
- o Responsive web design to provide a seamless experience across devices.

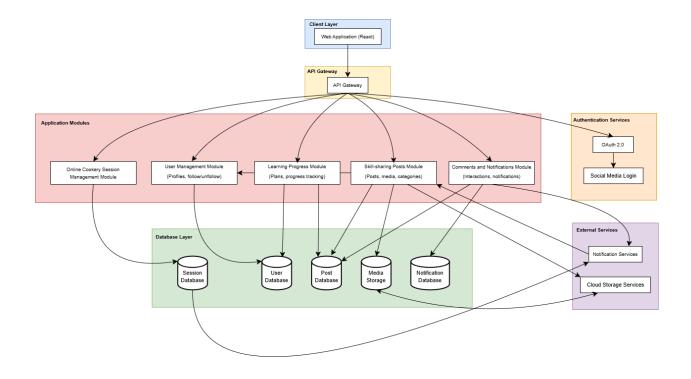
#### • Maintainability:

- The code will follow modular principles for easy updates and future enhancements.
- Version control (Git) will be used for tracking changes and collaboration.

#### Reliability:

- o The system will ensure high availability with minimal downtime.
- o Regular backups of user data to prevent data loss.

# 4. System Overview Architecture



## 5. Work Distribution

#### 1. IT22284570 : Skill-Sharing Posts Module

#### CRUD Operations:

- o Allow users to create new posts with up to 3 photos/videos and descriptions.
- o Fetch posts by category (e.g., Italian, Vegan) or user.
- o Edit post descriptions or media.
- o Remove posts.

#### Additional Responsibilities:

- o Implement media upload functionality (photos/videos).
- Categorize posts by cuisine type.

#### 2. IT22084590: Learning Progress & Plans Module

#### CRUD Operations:

- o Allow users to create learning plans (e.g., "Learn French cuisine in 3 months").
- Fetch learning plans and progress updates.
- o Edit learning plans (e.g; add/remove topics, update timelines).
- Remove learning plans.

#### Additional Responsibilities:

- o Implement predefined templates for progress updates.
- o Allow users to post updates on their learning journey.
- Ensure seamless integration with skill-sharing posts.

#### 3. IT22216700 : Online Cookery Session Management Module

#### • CRUD Operations:

- Users can create an event by posting about an online cookery session. A meeting URL will be automatically generated.
- Other users can view upcoming cookery sessions and explore event details.
- o Event creators can modify the event details (e.g., date, time, description).
- The event creator can remove the session if needed.

#### Additional Responsibilities:

- o Generate a unique Google Meet URL when an event is created
- Users can join the event by selecting "Join," and upon confirmation, they will receive the event Google Meet link via WhatsApp.
- o Users can explore events based on categories, cooking styles, or chef profiles.

#### 4. IT22282354: Comments & Notifications Module

#### CRUD Operations:

- Allow users to add comments on posts.
- Fetch comments for a specific post.
- o Allow users to edit their comments.
- Allow users to delete their comments or allow post owners to delete comments on their posts.

#### Additional Responsibilities:

- Implement notification system for likes and comments.
- Ensure real-time updates for notifications.
- o Handle comment moderation (e.g; post owners can delete comments).

### **Shared Responsibilities:**

#### **User Management Responsibilities:**

- Users can register/login using OAuth 2.0 (Google, Facebook).
- Users have profile pages displaying their posts and activities.
- Users can follow/unfollow others to stay updated.
- Role-based permissions will be implemented for different user levels.
- Secure storage of user credentials and profile data.

#### **General Responsibilities:**

- Backend modules will be integrated with a React frontend for a seamless experience.
- Each member will write unit tests for their module.
- API documentation will be maintained.
- All members will use Git for version control with proper branching and commit messages.

# 6. GANTT Chart

Task	Start Date	End Date	Duration	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Project Planning	17.03	24.03	1 week						
Backend Development	24.03	14.03	3 weeks						
Frontend  Development	24.03	21.04	4 weeks						
Integration (FE and BE)	21.04	28.04	1 week						
Testing and Bug Fixing	28.04	30.04	3 days						
Final Documentation	30.04	02.05	3 days						
Submission	02.05		1 day						