

Sri Lanka Institute of Information Technology

Programming Applications and Framework (IT3030)

**Continuous Assignment – 2025, Semester 1
Initial Documentation**



Group Details

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Project Overview

Learnoo is a comprehensive Skill-Sharing & Learning Platform that empowers users to share their knowledge and track their learning journey across various fields, such as coding, cooking, photography, DIY crafts, and more. It serves as a community-driven space where individuals can interact, engage, and inspire each other through their shared expertise and experiences. Whether you're learning something new or teaching others, Learnoo offers a dynamic environment for both personal growth and social learning.

Learnoo is designed to be an accessible, engaging, and collaborative platform that helps users not only showcase their skills but also enhance their learning through structured plans, social interaction, and progress tracking.

Key Features

1.Skill Sharing Posts:

- Users must be able to upload content, including images (up to 3) or short videos (maximum duration of 30 seconds) for each post.
- Users must be able to add descriptions to their shared content (e.g., explaining the skill or process involved).
- Each post should have a unique ID for easy tracking and referencing.

2.Learning Progress Updates:

- Users should have the option to post updates regarding their learning journey (e.g., completed tutorials, new skills learned).
- There should be predefined templates for users to input their progress in a structured manner.
- Users should be able to edit and update their progress posts.

3.Learning Plan Sharing:

- Users should be able to create and share structured learning plans, which can include:
 - ✓ Topics or skills to learn.
 - ✓ Resources like books, articles, videos, or courses.
 - ✓ Completion timelines for each topic.
- Users should be able to update their learning plans as they progress in their learning journey.

4.Interactivity & Engagement:

- Users should be able to like posts from others.
- Users should be able to comment on posts.
- Comments should be editable or deletable by the user who posted them.
- Post owners should have the ability to delete any comment on their own posts.
- Users should be notified when they receive likes or comments on their posts.

5.User Profiles & Social Features:

- Each user must have a personal profile page showcasing the following:
 - ✓ Shared posts.
 - ✓ Progress updates.
 - ✓ Learning plans.
- Users should be able to follow other users.
- Followers should receive notifications for posts and updates from users they follow.
- Profiles must be publicly visible to encourage community engagement.

6.Notifications:

- Users should receive notifications for interactions on their posts (likes, comments, etc.).
- Notifications should be displayed in real-time and can be managed in the user's settings.

7.Authentication:

- Users must be able to log in using their existing social media accounts via OAuth 2.0 (e.g., Google, Facebook, Twitter).
- There should be a secure sign-up and login process with proper session management.

Functional Requirements

1.User Authentication and Authorization:

- Users must be able to log in via their valid account credentials.
- Secure user registration, login, and session management.

2.Skill Sharing Posts:

- Users can upload up to 3 photos or 30-second videos per post, along with descriptions.
- Posts should be publicly visible and shareable.

3. Learning Progress Updates:

- Users can post updates about their learning journey using predefined templates (e.g., completed tutorials or skills learned).
- Progress can be edited and updated by users.

4.Learning Plan Sharing:

- Users can create, update, and share structured learning plans with topics, resources, and timelines.

5.Interactivity and Engagement:

- Users can like and comment on posts, with the ability to edit or delete their own comments.
- Post owners can delete comments on their posts.

6.User Profiles:

- Each user has a profile page showing their posts, progress, and learning plans.
- Users can follow others and interact with their content.

7. Notifications:

- Users receive notifications for interactions on their posts (likes, comments).
- Notifications can be managed through the user's settings.

8.Search and Discovery:

- Users can search for other users' profiles.
- The platform should support easy discovery of shared skills and learning content.

Non-Functional Requirements

1.Scalability:

- The platform must be scalable to handle many users and posts without degrading performance.
- The system must be able to support a growing user base, especially for media-rich posts (images and videos).

2.Security:

- User data (profile information, posts, and learning plans) must be securely stored and encrypted.
- The platform must comply with data protection regulations (e.g., GDPR).
- OAuth 2.0 login must be implemented securely, ensuring users' social media account information is protected.

3.Performance:

- The platform must be loaded quickly, even with high post traffic.
- Media (images and videos) must be optimized for quick upload and retrieval to ensure smooth performance.
- The user interface should be responsive and work smoothly on both desktop and mobile devices.

4.Usability:

- The platform should be user-friendly and intuitive, making it easy for users to navigate through their profile, posts, and learning plans.
- There should be clear call-to-action buttons for posting, liking,

commenting, and following.

- The templates for learning progress and plans should be simple to use and not require complex input.

5.Availability:

- The platform should be highly available with minimal downtime. Regular backups should be made to prevent data loss.
- The system should have a disaster recovery plan in case of unexpected failures.

6.Maintainability:

- The codebase should be modular and well-documented, making it easy for developers to maintain and extend the platform.
- The system should have proper logging for debugging and monitoring purposes.

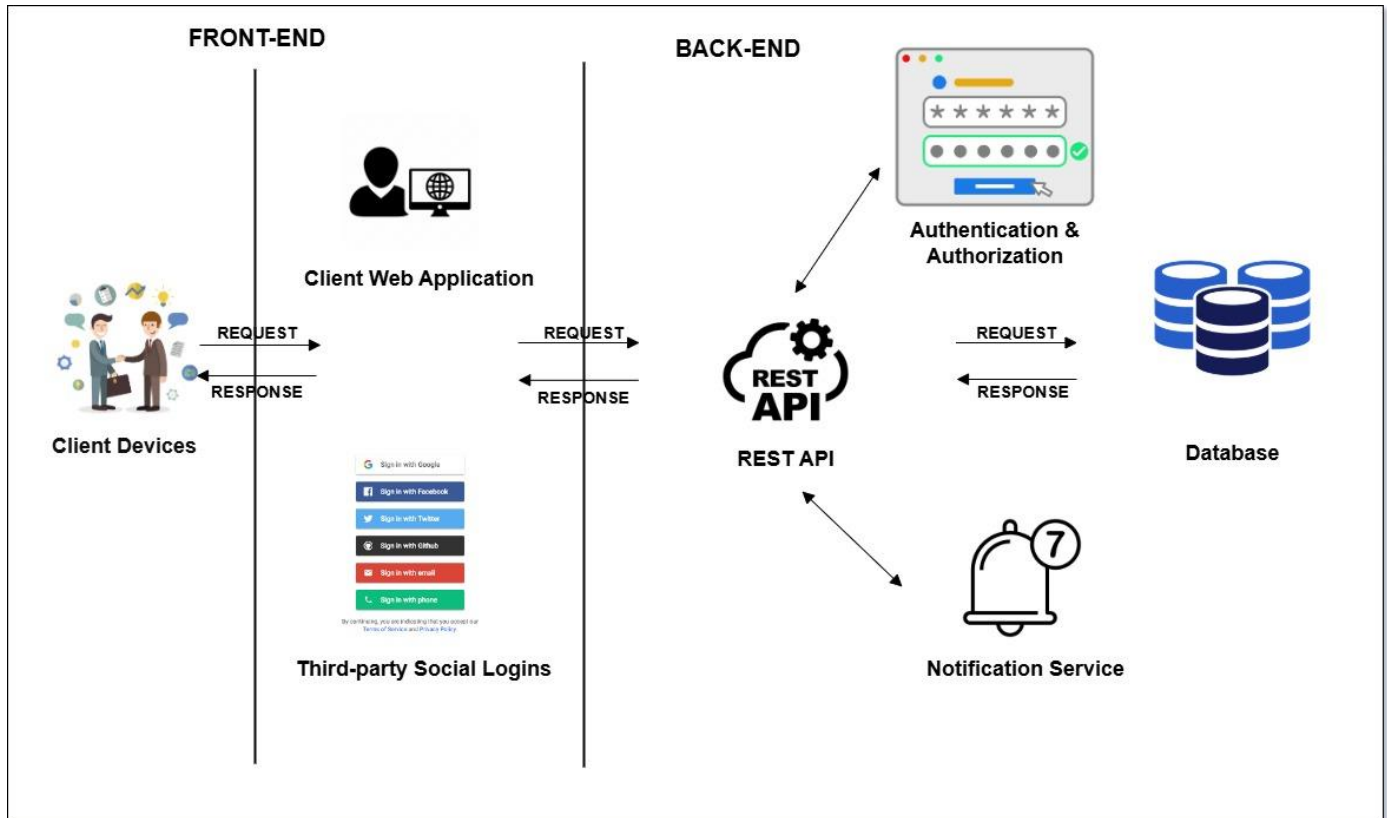
7.Compatibility:

- The platform should be compatible with all major web browsers (e.g., Chrome, Firefox, Safari, Edge).
- It should also be compatible with mobile browsers and provide smooth experience for mobile users.

8.Localization and Internationalization:

- The platform should support multiple languages and regional formats for dates, times, and currencies if applicable.
- Users should be able to choose their preferred language.

System Overview Diagram



Initial Documentation Work Breakdown

- Functional Requirement Gathering with explanations and preparing the initial documentation (IT22268662)
- Non-functional Requirement Gathering and system overview diagram (IT22056016)
- Key features Explanation (IT22359988)
- Gant chart and Project overview (IT22182500)

Project Work Distribution

1. Haarun Chandramohan (IT22268662)

1) Skill Sharing Posts

- Managing the posts of the users
- Implementing REST API endpoints to handle the CRUD operations of those posts.

2) User Authentication and Authorization

- Setting up user roles (User, Admin) and managing their permissions.
- User registration functionalities and social media registration integration using OAuth 2.0
- Implementing a secure login system and a password recovery function

3) User Profiles

- Develop profile pages displaying user posts, progress, and learning plans.
- Implement the follow user feature (users can follow/unfollow others).

2. Dineshkumar Sivapalan (IT22056016)

1) Learning Progress Updates

- Creating pages with the posting and editing functionalities for post for their effective management.
- Implement predefined templates for users to post learning progress.

2) Learning Plan Sharing

- Create a feature where users can create, update, and share learning plans

3.Farshad Inayathulla (IT22182500)

1) Like & Comment System Like & Comment System

- Implement likes and comments on posts.
- Allow users to edit or delete their own comments.

2) Notifications

- Develop a notification system for likes and comments.
- Ensure users can manage notifications from their settings.

4. Shambavi Thavajothy (IT22359988)

1) Search and Discovery

- Implement search functionality for finding users and shared content.
- Optimize content discovery based on skill categories.

2) Backend API & Database Management

- Work on API endpoints for posts, comments, likes, and notifications.
- Ensure data security and proper database structuring.

Gant Chart

Gantt Chart

