

Overview of Services/Solutions

RED TEAM - Learning & Exercise Platform (RLEP)

Cyber security organization consists of blue team, red team and purple team. Each of organization having their own function to leverage the level of security profile

In most of cases these are the function of each role :

- Red Team
Adversary their capability to find some weakness in specific target using a complex and combine technique and tools of penetration testing skills
- Blue Team
Continue leverage to elevating the security posture profile of the environment under their responsible
- Purple Team
A new term that will set the effectiveness of both blue team and red team

RED TEAM - Learning & Exercise Platform provides simple, effective and integrated solution to improve your plan, implement and assess a specific learning process. It is used for eLearning and realizes advanced operations for Challenges idea, concept, deployments under secured environment.

RLEP enables you to leverage the level of security profile and exercise to find some weakness rules for all organization members in order to improve capabilities in cyber attack prevention & penetration.



Customer Benefits

In this case the benefit is to help in facilitating competency Red Team enablement:

1. Zero competency development starts with information security awareness
2. Accreditation and computer security training
3. Penetration testing accreditation and training
4. Updated learning collateral
5. Playground testing environment

by providing a platform :

■ Learning Portal

A platform of library ecosystem contains learning material.

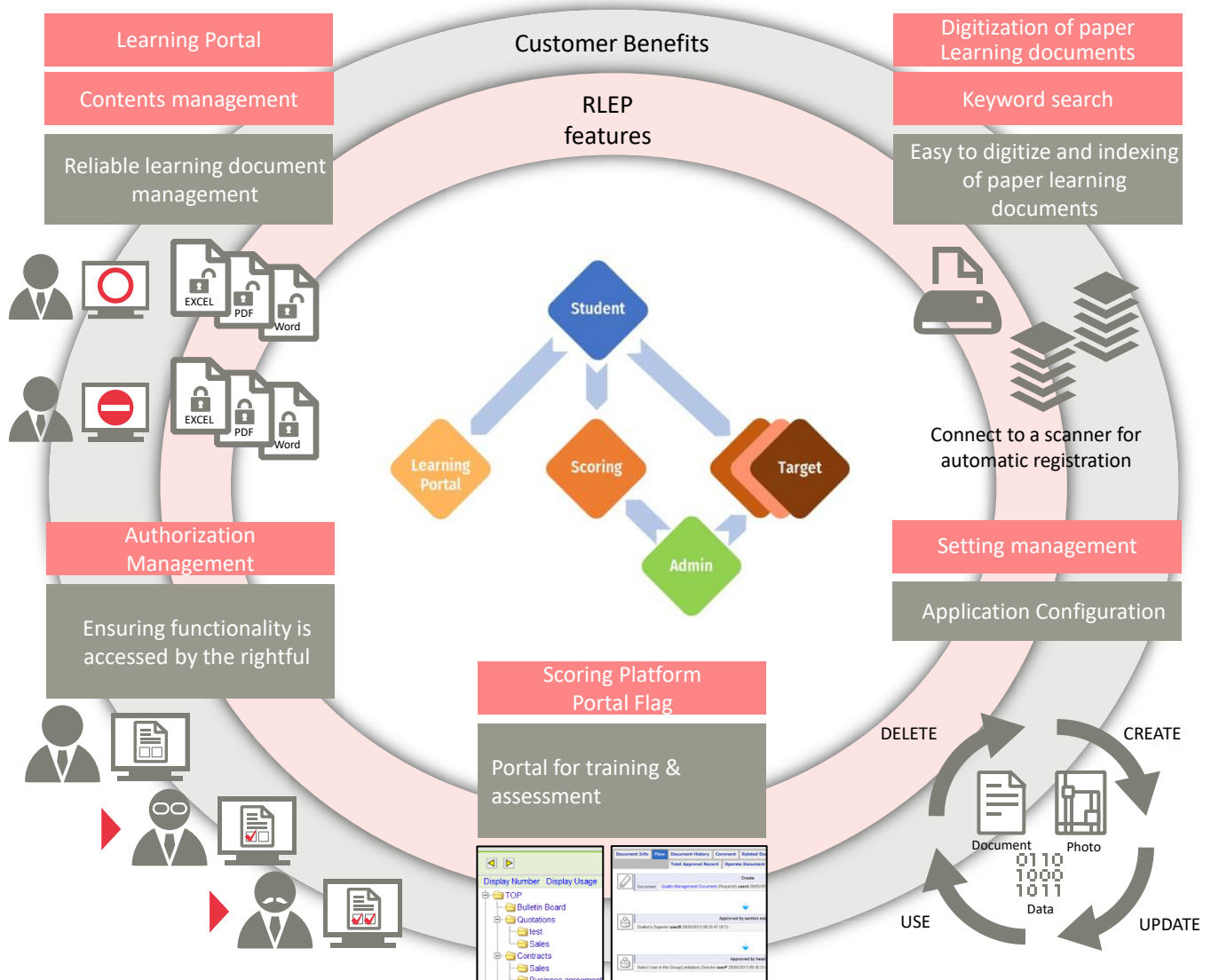
■ Scoring Platform

A library ecosystem consists of latest resources of reference for student leverage their knowledge through reading material. It is a web base platform, The playground itself consists of :

- ✓ As student for accessing challenges and uploading the flag
- ✓ As student can be use as well for warming up exercise through exercise iteration
- ✓ As admin for composing the challenges score and monitor the scoring progress

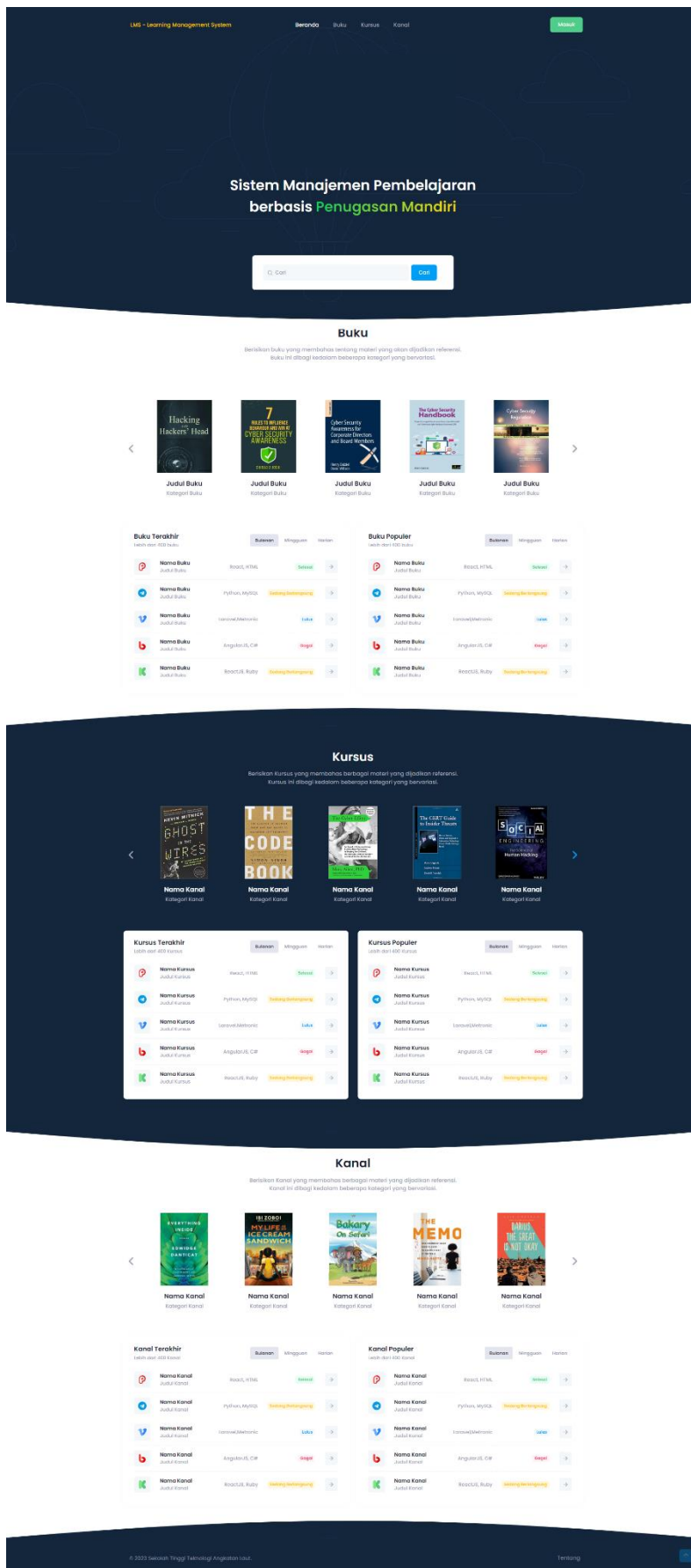
What is RED TEAM - Learning & Exercise Platform?

RLEP is a facility to improve capabilities in cyber attack prevention & penetration exercises to achieve integrated management and provides a learning platform that enables all members to practice and improve capability for the future readiness.



Learning Management System – Portal Overview

Main Page



■ Learning Portal

A platform of library ecosystem contains learning material such as courses, e-books and channel. This Portal can be used for the instructor manage the learning material and for student to execute their ways of learning.

✓ Provides Content Management System functionality

- Application configuration
- Database connection settings
- Application access user settings
- Data editing
- Data search
- Data filters

✓ Provide search e-books using keyword searching, tagging searching methods Filters that can be used include:

- Type
- Subject
- Content Source
- Skill
- Duration

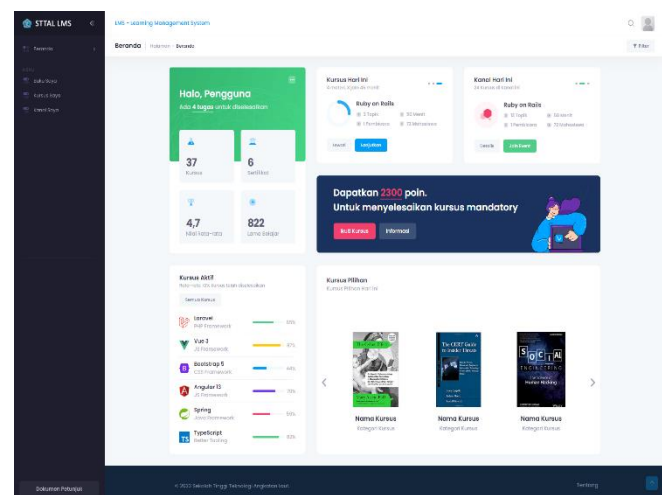
✓ Displays a list of Category E-Books

Channel List is List of available channel content which can be selected by user

✓ Provide feature tracking and reporting capabilities of student user activity

- Assignments : Show task list and due date
- Activity : Show user activity history. Notes can be downloaded as a CSV file
- Digital Badges : ability to earn Digital Badges which are visual, verifiable records of achievements.
- Playlists : Lists created by users, used to assist users in making lists of things the user wants to learn

Home Page

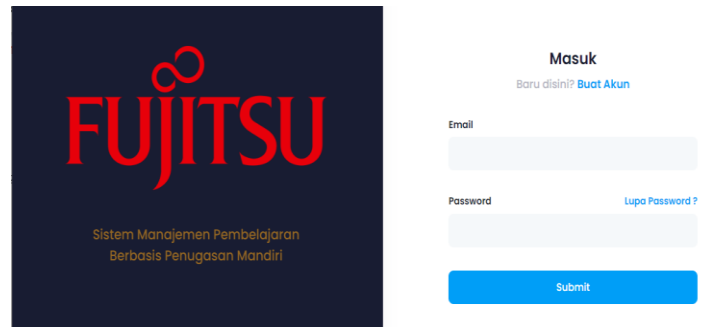


▪ User Management

This system provide user login based on ID and password in order to being able accessing the system. For administration point of view, this feature able to accommodate user with administrator privilege to register new user, activate or deactivate user ID. This system manage user based on role setup to follows the process of learning, it can be defined as follows

- Administrator
- Instructor
- Student

In this feature, user able to see their profile and manage the information within. Changing password also one of the functionality provided in this feature. If the concept of user management centralized, only the Administrator that should be able to do the several task (resetting password, create new user), this system can be accommodate this kind of approach.



• Content Management

Included in this system, user able to manage the detail information present for user training & learning experiences. Access for the system will be able to manage based on their role. For user that have certain privileged will have ability to maintain the content (courses, books or channel). For the learning experience, user can search the content using keyword or specific term like grouping or categorization of topics.

• Document (e-book) Management

As the one of the features for learning experience beside Courses, E-book reader will become self-learning tools for student in order the understand the learning materials. This system able to accommodate concurrent readers more than 100 user and will not affect the reading experience.

Document will be display in list. Based on documents registered in folders. The filter feature enables uses to choose which items to display. System will track the progress by using status of the reading, whether the book are still in progress or finished read by the student.

✓ Document Access

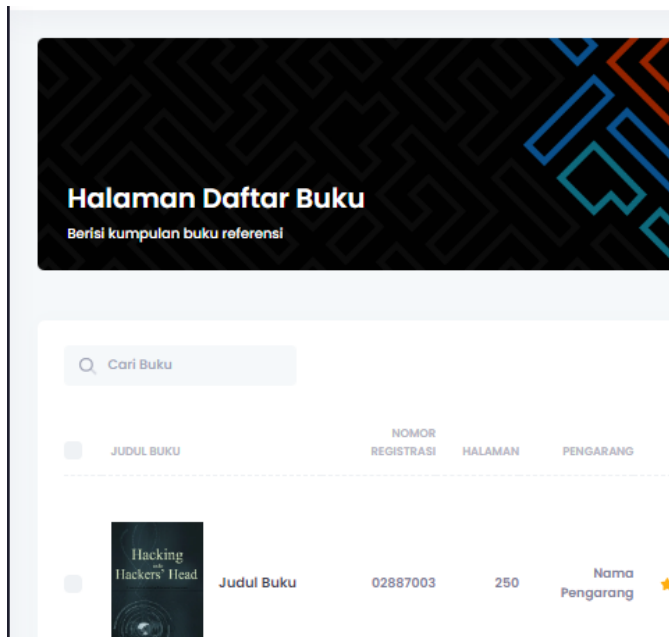
This feature provides access to information on registered documents and attached files. Users are also able to access authorization records.

✓ Document operation

Documents can be updated, invalidated, permitted to be accessed, deleted, restored, copied, and relocated. It is possible to set access controls per document. For user, when reading the books, they can add into playlist that can be accessed for shortcut.

✓ Searching Books

User able to search using keyword, tagging or category. When searching the filter can be used by user is e-book category.



• Course Management

LMS platform has capability to maintain the course for best learning experience. For the instructor, the platform enable them to register the material based on several criteria that needed.

Using the feature for learning, student can search the available courses based on several criteria, such as

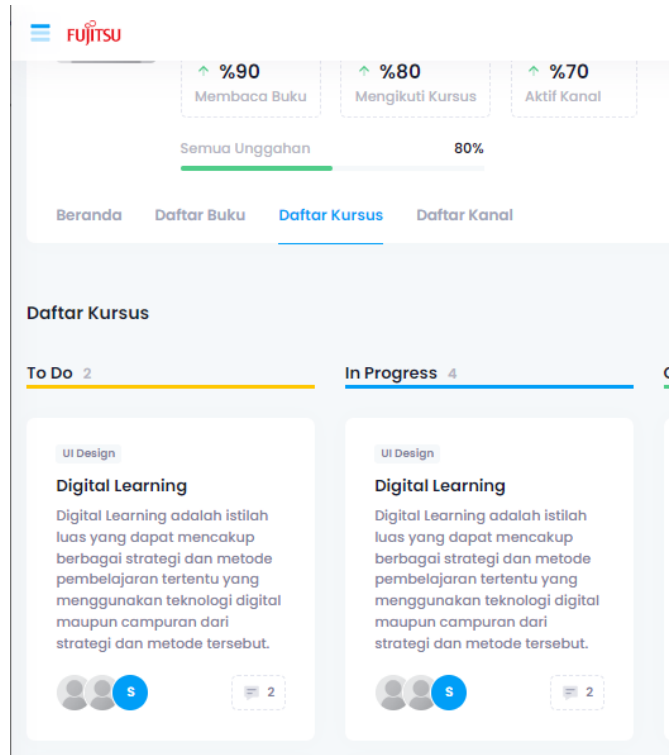
- Type
- Subject
- Expertise
- Duration

After finishing the course, student have option to try out their knowledge using the Practice feature. This menu will be available for courses that has been prepared by the instructor.

• Channel Management

One of the supplementary tool in learning experience is channel features. This menu able to accommodate alternative way of learning. In this menu, user will be able to searching the available channel. For privileged user, they can maintain and manage the channel. New channel can be added based on the objective of learning.

For student, they can add channel they interested into their own playlist. This way they can have like their own syllabus of learning that can accessed by themselves.



• Assignment Management

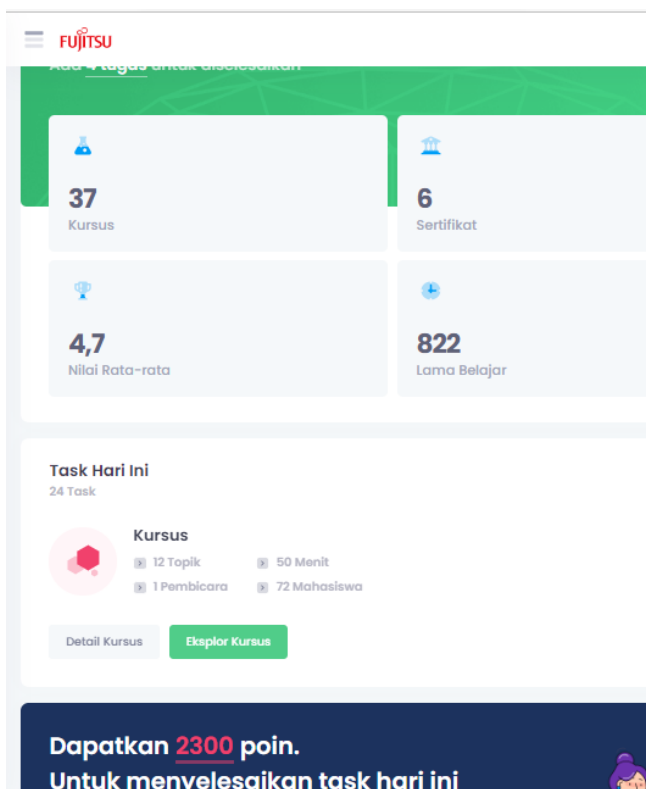
Arrange the assignment for assignee: title, schedule of tasks (read e-book, course, channel). Make recommendation to assignee to follow the tasks. This assignment will appear in each student dashboard. The notification will be appeared in order to be a reminder.

• Setting Management

Configuration and setting will be need in order to manage the system. This configuration also give better experience in learning. Administrator able to configure the related attributes for the application. Beside that this system have functionality to configure the connection to database.

• Play List (save for later)

A list that created by user in order to them can save the list of things that they wanted to learn. The play list also can help the user access all the material that they have interest. This list will appear in each of user dashboard. The other function this feature can be as a short cut for user in accessing their selected contents. This Play List will appear in the main page of user dashboard

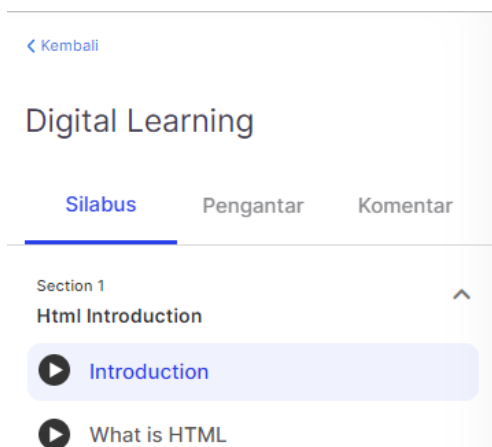
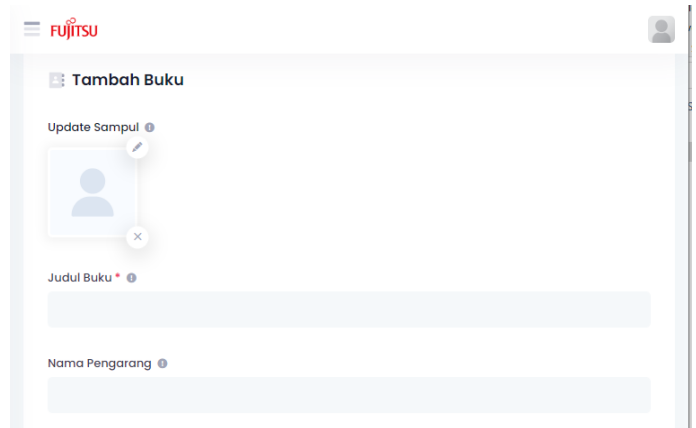


• Instructor Menu

Mainly the content of the LMS will be provided by the instructors. Like the system administrator, instructor will have privileged for accessing menu and function to maintain the content like: Courses, E-book or Channel.

In this menu Instructor can create several tasks like register e-book, create the course, deactivate/delete current courses. register the channel. Giving assignment for students. In this menu instructor can maintain the course: planning, exam, giving evaluation.

For learning evaluation purposes, instructor can download related data into CSV. This file can be used by the instructor to be able giving appropriate evaluation and scoring..



• Student Menu

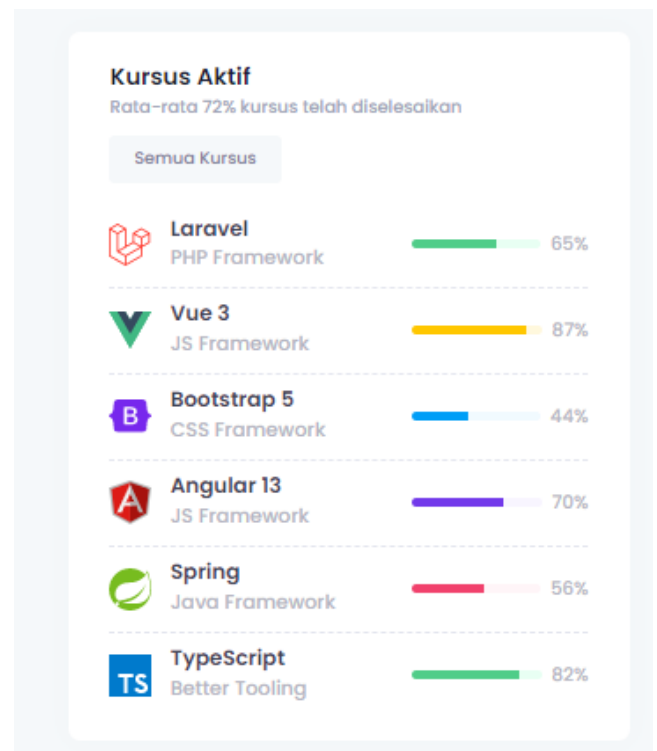
This functionality is the main menu for user to do the learning process. Each of the user will be given specified user ID. With this ID they can login and accessed the platform and execute their learning process.

This feature is used to retrieve status, achievement, scoring of learning material. Access the tasks: access schedule, read e-book, take the course, try out the quiz and channel. When there is no centralized password management, user will be able to change and update the password by themselves.

• Visualization

LMS platform also have functionality to visualize the information within. For each achievement by user, system can generate a virtual badge. User also can access their activity history within the platform and download it into CSV file.

Visualization of learning achievements, grades and total users in form of dashboard. This feature can be accessed by user based on their role. Each role have different visualization based in their characteristic of roles.




Learning Management System – Summary & Technical Sheet

List of Learning Management Features

Category	Feature	Description
Login	Login	Users enter user IDs and passwords to log in to the system.
Document management	Document list display	Documents registered in folders are displayed in list. The filter feature enables users to choose which items to display.
	Document registration	Documents are registered in designated folders. Users are able to set a group/classification per document.
	Document access	This feature provides access to information on registered documents and attached files. Users are also able to access authorization records.
	Document operation	Documents can be updated, invalidated, permitted to be accessed, deleted, restored, copied, and relocated. It is possible to set access controls per document.
	Document search	New document search, full-text search, category search, detailed document search, and synonym search are available.
Master maintenance	Private menu	Users are able to add shortcuts to features (e.g., category search or conditional search) in their private menus.
	Category management	Documents can be registered, copied, and deleted.
	Other master management	This feature provides tools for maintenance of user and group accounts, documents, and other masters.
Data operation	Import/export	This feature is used to import and export folder information, user and group information, and document masters.
Learning Experience features	Content Access	This feature is used to access learning material content.
	Learning User Profile	This feature is used to retrieve status, achievement, scoring of learning material.
	Tracking	Provide list assignments and its due date, show the activity history of the user and records of accomplishment.
Profile	Account Information	This feature enables users to manage detail user information (Password, Email Address, Notifications)
System administration	System information setting	Users can configure system information settings for Application.
Service features	Notification	Automated notifications (email)
	Dashboard	Visualization of learning achievements, grades

Server Configurations

We propose the following server configurations depending on the scale of use (the server models are examples).

Usage scale	No. of concurrent clients	No. of registered documents	Configuration sample
Medium 1 to 50 users	50 or fewer	Approx. 1 million PDF file pages	<div> AP/DB server FUJITSU Server PRIMERGY RX2530 </div>  1 to 50 PCs

Server/Client Environments

Server software
OS: Windows / Linux
DB: SQL Server

Client software
OS: Windows 10
Browser: Internet Explorer 8.0/9.0
Note:HDD: Approx. 1.5 TB (for 1 million PDF pages)

Scoring Platform Portal Flag (CTFd)



What is CTFd:

CTFd is a Capture The Flag framework focusing on ease of use and customizability, It comes with everything you need to run a CTF and it's easy to customize with plugins and themes.

Feature packaged

CTFd has features designed to support organizers.

Constant development efforts, opensource contributors, combined with plugins and themes give it the most flexibility of any CTF framework.



Visualize your Teams

With all the visualization in CTFd you'll know what's going on with just a glance.



Control Everything

All you need to use to run your very own Capture The Flag is a web browser. Just use the built in administration panel and say goodbye to database queries.



And save your CTF too

With the Import/Export feature, you can save your CTF and reuse all your hardwork.



Edit Everything

With its HTML editor, you can create entire pages in side of CTFd. Need to share lots of links? Make an FAQ? A contact page? No problem.



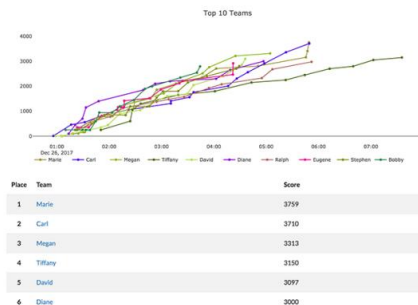
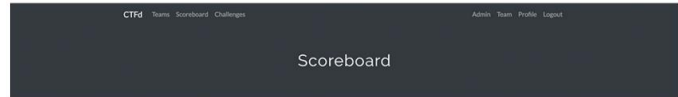
Add Hints for those hardtimes

Hacking is hardwork. If your users are stuck you can setup hints for them to get unstuck.



Clean but Customizable

No clutter makes the default theme of CTFd a beauty without being opinionated



Individualized Infrastructure

Unique isolated target servers for every user
No more users trampling over each other solving challenges

Improved User Authentication & Permissions

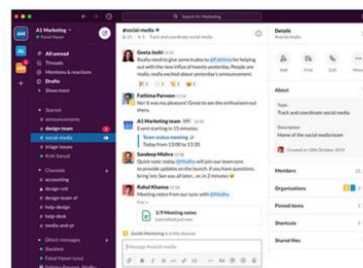
Integrate with your LDAP, SAML, or SSO provider
Configure administrator permissions for content editors, judges, etc

All CTFd Cloud Features

All features, plugins, and themes available to you regardless of hosting infrastructure



Direct Support



Engage with CTFd developers over a Slack Connect channel for rapid answers and issue resolution
Additional on call support for events and critical projects

Unlimited users
Unique ctfid.io subdomain or your own domain
Secure TLS/SSL connection
Preconfigured Email Settings
3M monthly page views
30 container servers
Free access to our custom themes
SAML Authentication
IP Address Restrictions
Custom Theme Upload beta
Unlockable Challenges
Dynamic Value Challenges
Programming Challenges
Multiple Choice Questions
Manual Verification Questions
Webhooks (includes Slack & Discord Integration)



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