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Management:

This section focuses on the management of the competition problems.

State:

Shows the number of enabled and disabled problems.

Categories:

Allows the site administrator to sort the problems available by category, if a category is selected then only that category is displayed.

Organization:

Allows the site administrator to sort the problems available by the organization that created them, if a organization is selected then only problems from that organization are displayed.

Bundles:

Allows the site administrator to sort the problems available by bundle — the group of files it was uploaded in.

Problem Dependencies:

Allows for sequential or nonsequential access to problems, appears to be based on the bundle that contains the problems.

LOCKED: Must solve one problem in the bundle, before being able to view and solve the next problem.

UNLOCKED: The problems are all visible and can be solved in any order.

Exceptions:

Displays exceptions from the Shell and Webpage as well as the Date, Time, Browser, and User information under which the exception was generated. It also displays the full Traceback (description) of what generated the exception.

Shell Server:

This section displays information about the site administrator's hell servers. The main/default shell server is the Local-Development-Shell (found by clicking [Shell](#)), which can be used to run programs in order to solve problems or package, install, and deploy new problems.

The latter requires some of the use displayed on this page: Host name, SSH port, Username, Password, Server Number, and Web Protocol (HTTP or HTTPS). The username and password refer to the admin of the system NOT a web user account (teacher/student). After a problem has

been deployed using the Shell, the admin will use this page to add the new problem to the competition, by pressing the **Load Deployment** button. If the problem(s) were successfully deployed then the problem(s) should be viewable in Problem Management.

News:

This page is available when not logged in. Allows for information posts, is run mainly through Jekyll. The default post explains how to create more posts, post files must be uploaded via Github.

Configuration:

Allows the site administrator to customize and control the more technical details of the competition.

General:

Contains basic competition details: name, start date, end date, and URL of competition. There is also an option here that allows the site administrator (person running the competition) to receive feedback from the competitors about the competition.

Sharding:

Sharding Definition: form of data management, splits large amount data across smaller bundles/groupings.

In CTF: Allows the site administrator to split the teams/users across multiple shell servers. This section allows the site administrator to specify how sharding will occur and assign the number of servers for the competition.

Email:

When email is *enabled* it allows the competition to send emails to users, this is required in order for users to reset their password. The instructor must provide the SMTP URL (the URL of the email server e.x. Gmail.com), Email Username, Email Password, From Address (where the emails will be sent from), and From Name (who the emails are from). The instructor can also choose to specify a different SMTP Port (port running the email server), the default port being the conventional 587, or switch the Security employed by the SMTP (mail) server between either TLS or SSL. In enabling the Email Verification option, the instructor will require users to verify their email after registering. The Email Domain Whitelist is a list of approved email domains for users, the default configuration is to accept all emails during registration.

Problems:

This section is where the problems are displayed and solved.

Solve:

Displays the problem explanation and provides the answer space. Whether this will be a list of all enabled problems or only a few depends on “**Problem Dependencies**” which can be adjusted under [Management](#).

Hints:

Displays only the hints for the problems.

Shell:

Virtual machine where users can login and test code snippets and run programs provided by the question.

Scoreboard:

Public:

Displays scores of all teams apart of the competition.

[Insert Classroom Name]:

Displays the affiliation, score, and ranking of teams who are members of the classroom specified.

Ineligible:

Classroom:

Allows the user to access and control information about classroom(s) they control.

Overview:

Will display a horizontal list of classroom names controlled by site administrator, the “x” in the upper corner by each classroom name allows the site administrator to delete the specified classroom. At the end of the list there is an option to create a new class (click “New Class”). For each class it will display the Class Name, Teacher Username, Overall Stats, and a List of all Students. The list of students shows the student’s score on the far right. There will also be an option for the site administrator to export the Classroom Data, it appears the only format is CSV.

Management:

Will display a horizontal list of classroom names controlled by the site administrator. When a classroom is specified (using the top menu), the site administrator will then be able to view a list

of users. For each user in the list, the site administrator will be able to see a user's Name and Affiliation, as well as make them a teacher* or remove the user from the class.

*The user must already have a teacher account type for this to happen, as of right now there is no place where the method to make a user into a teacher is called.

Account:

Accessed by clicking on the icon and username in the upper right corner of all pages. This section allows users to change their password or disable their account.

Password Control:

Allows users to change their password by entering their current password and the desired new password.

Disable Account:

Allows users to permanently disable their account, this action is permanent and cannot be undone.

Profile:

Accessed by clicking on the number (user score) next to the lightning bolt in the upper right corner next to the username and profile icon.

Progress Overview:

Shows the progress the user has made in completing a problem bundle.

Score Progression:

Shows a list of problems answered by the user and their respective point values which have contributed to the user's overall score.

Classroom Membership:

Displays the classroom membership(s) of the user, along with what type of membership (e.g. "you own this class" or student)

Achievements:

Displays the achievements earned by the user. Achievements are earned by completing challenges and answering questions.