



Challenge Report

Hackathon Aubay 2024

Challenge 9 - Replacing Slack with Internal Communication Features in the e-Learning Platform

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Introduction /Objective

Replace Slack with an internal communication system, using the Social Wall and Social Groups functionalities that already exist on the e-Learning platform, to centralize communication between users, especially the Technology Units. This solution aims to create a secure and unified communication environment, with notifications informing users of new messages and interactions.

Challenge Description

This technical challenge involves creating a solution that allows direct and organized communication within the platform itself, replacing Slack and providing similar functionalities. The aim is for communication between users to be fluid and for notifications to keep everyone informed of new messages and interactions.

Social Wall Setup

The Social Wall will serve as a central space where users can post and interact. To set up this feature, follow the steps below.

Activate the Social Wall

1. Access the platform's administrative settings.
2. Make sure the "**allow_social_tool**" option is enabled.
3. Define who can publish and interact on the Social Wall, according to the desired permissions.

Configure Publishing Rules

1. **Set Limits (Optional):** If desired, set limits on the number of posts per user per day.
2. Verify that all authorized users can freely interact (comment, react) on the Social Wall.

Check Social Wall Features

1. Ensure that users can **comment and react** to posts.
2. Set **moderation options**, if necessary, to ensure that content follows platform policies.

Social Groups Configuration

Social Groups allow you to create communication spaces for specific groups, such as Technology Centers, which can be public or private.

Create Private Group Field

1. In the database, access the **usergroup** table and add the **is_private** field with the following SQL command:

```
ALTER TABLE usergroup ADD COLUMN is_private TINYINT(1) DEFAULT 0;
```

Modify Group Forms

1. In **the group_add.php** and **group_edit.php** files, add a **checkbox** so that the administrator can define whether the group is private or public.

Implement Access Control

1. Add a check on **the group_view.php** and **group_topics.php** code to ensure that only members of private groups can view the contents of those groups.
2. Implement the **canViewGroup** function to verify the user's membership in the group.

Implementation of the Notification System

Notifications are key to informing users about new direct messages and interactions.

Structure of the Notification Table

1. Certificar-se de que a tabela **notification** existe com os seguintes campos essenciais: **dest_user_id**, **title**, **content**, **created_at**, e (opcionalmente) **is_read**.

Insertion of Notifications

1. In the `new_message.php` file, add the code to insert a new notification each time a message is sent.
2. **Example of insertion:**

```
$notificationQuery = "  
    INSERT INTO notification (dest_user_id, title, content, created_at)  
    VALUES (:recipientId, :title, :content, NOW())  
";
```

Create Notifications Page

1. Develop a new page that displays all user notifications, listing sender, title, and content.

Adding the Notifications Tab to the Main Menu

To ensure that users can quickly access your notifications, you need to add a notification shade to the main menu.

Change the Main Menu (Topbar)

1. Locate the **topbar.tpl** file or equivalent and add a "Notifications" tab.
2. Implement an **unread notification counter** next to the icon or tab.

Testing and Validation

Functionality Testing

1. **Social Wall:** Verify that all authorized users can post and interact on the Social Wall.
2. **Social Groups:** Confirm that private groups are only accessible by members.
3. **Notifications:** Make sure that notifications are being created correctly and displayed in the notifications shade.

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1. Review the configuration and fix any issues found during testing.

Conclusion

This report details the steps needed to replace Slack with an in-house solution based on Social Wall and Social Groups functionality. The implementation of notifications ensures that users are always informed, promoting an efficient communication environment within the e-Learning platform itself.

References

Oliveira, P., & Silva, R. (2022). *Integração de Redes Sociais em Plataformas de e-Learning: Um Estudo de Caso.* Revista de Educação e Tecnologia, 14(3), 45-67

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