

## User Roles and Permissions: Hierarchy and Functionality

### User Roles Overview

Role	Core Permissions	Scope of Access	Upload Rights	Management Rights
<b>Admin</b>	Full system privileges; manages users, site structure, and content	Entire portal, including all branches, sections, subjects, and common groups	Anywhere	Universal
<b>Teacher</b>	Upload/manage learning materials; assign Class Representatives (CRs)	Only to assigned Subject/Section/Branch/Year combinations	Assigned subjects	Assigned subjects/sections
<b>Class Rep (CR)</b>	Upload learning materials for their assigned subject/section; acts as a student leader	Same as the teacher who appointed them, but only for their designated subject/section	Assigned subject	None (upload only)
<b>Student</b>	View/access materials for their section and common groups	Their own Year/Branch/Section and any common groups	None (unless CR)	None

- **Admins** inherit all teacher permissions and have the highest level of control, including the ability to manage users, structure, and content portal-wide<sup>[1] [2] [3]</sup>.
- **Teachers** are restricted to managing and uploading content only within their assigned teaching context (specific subject, section, branch, year)<sup>[4] [1] [3]</sup>.
- **Class Representatives (CRs)** are students selected (typically by Admins) to upload materials for a specific subject/section, mirroring the teacher's upload rights for that context<sup>[4]</sup>.
- **Students** have standard access: they can view materials for their section and common groups but cannot upload unless designated as a CR<sup>[4] [1]</sup>.

### Portal Structure

- **Year:** 4 academic years (e.g., Year 1, Year 2, etc.)
- **Branch:** 6 engineering disciplines (CSE, ECE, ME, CE, EE, IT)
- **Section:** Subdivision within a branch/year (CSE has four sections per year: Genius, Brilliant, Smart, AI; others typically have one)
- **Subject:** Specific courses within a section (e.g., FLAT, DSA, Calculus)

- **Common Groups:** Portal-wide categories (e.g., GATE), accessible to all users, with upload rights generally reserved for Admins or designated Teachers

## Permissions & Access Rules

### Uploading Content:

- Teachers and CRs can upload only to their assigned subject/section/branch/year.
- Admins can upload anywhere, including common groups.
- Standard students cannot upload.

### Accessing/Viewing Content:

- All users in a section can view all materials for any subject within that section.
- All users can access materials in common groups (e.g., GATE), regardless of branch/year/section.
- Cross-section access is not permitted unless the content is in a common group.

## User Experience Flow Example

- A student selects their branch, year, and section (e.g., 4th Year, CSE, Genius).
- The chatbot shows only the relevant subjects for that selection.
- When a subject is clicked:
  - The chatbot provides a YouTube video link for the subject.
  - It also provides a link to the notes page (uploaded by the teacher for that specific subject/branch/year/section).

## Summary Table: Role Comparison

Feature/Action	Admin	Teacher	Class Rep (CR)	Student
Upload content	Anywhere	Assigned subjects only	Assigned subject only	No (unless CR)
Manage users	Yes	No	No	No
Assign CRs	Yes	Yes (for their section)	No	No
View section materials	All sections	Assigned sections	Assigned section	Own section
View common group materials	Yes	Yes	Yes	Yes
Manage portal structure	Yes	No	No	No

## Best Practices in LMS Role Design

- Clearly defined roles and permissions are crucial for system security, efficiency, and accountability<sup>[1] [2] [5]</sup>.
- Admins should be limited to a small, trusted group due to their wide-ranging powers<sup>[1] [2]</sup>.
- Teachers and CRs should have narrowly scoped permissions to prevent unauthorized access or accidental changes outside their domain<sup>[5]</sup>.
- Students should have simple, intuitive access to their own learning resources, with upload rights only when acting as CRs<sup>[4] [1]</sup>.

This structure ensures robust content segregation, clear responsibility, and streamlined access for all users within the educational portal.



1. <https://www.wponlinesupport.com/wordpress-services/guide-to-different-roles-of-learning-management-system/>
2. <https://support.learnworlds.com/support/solutions/articles/12000085981-how-to-manage-the-user-roles-and-permissions-user-role-levels>
3. <https://support.learnworlds.com/support/solutions/articles/12000085979-general-overview-user-roles>
4. <https://blog.teachmint.com/user-role-types-in-an-lms/>
5. <https://elearningindustry.com/from-chaos-to-clarity-define-roles-and-permissions-in-your-lms>