Learning Management System

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Product Overview

Learning Management System (an e-classes solution) is a portal that virtually facilitates education to the students of schools and colleges. This is an educational initiative primarily aiming to provide knowledge and learning virtually and remotely.

The functionality of sharing knowledge on the process, providing learning resources on the digital platform and finally conducting examination of the students shall be the flow of the system.

The LMS Portal Features

1. Pre Recorded videos map to time table

2. Only approved videos to be published

3. Students view videos as per time table else can view it any time based on the setting done while publishing video

4. Question Bank Management and Creating Mock and Surprise Test and assign exam to class/course wise

Masters
- Head
- Principal
- Faculty/Teacher
- Student
- Trust
- Board/University (SSC, ICSE, CBSE/University of Mumbai/Sandip University etc.)
- Entity (School/College)
- Stream (Science/Commerce/Arts)
- Course (M.E./B.E./M.Com etc.)
- Semester (1st, 2nd etc.)
- Class (I, II, VI, X etc.)
- Medium (English/Hindi/Marathi)
- Standard (10th, 11th, 12th)

- Subject (Maths/Science etc.)
- Division (A/B/C etc.)
- Chapter (1, 2, 3 etc.)
- Time Table
- Question Bank

Mapping of the above masters

Trust -> Board -> School -> Stream->Medium -> Faculty -> Standard -> Division -> Subject -> Chapter ->Video

E.g.:- (Trust) -> Pune University(Board/University) -> IMRT College(Unit/College) -> Commerce(Stream) -> English(Medium) -> Madam (Faculty) -> S.Y. B Com (Standard) -> A, B (Division) -> Economics (Subject) -> International Economics [Chapter] – Video1.mp4 (Video)

Portal Users
- Trust (Super Admin)
- Principal (Admin Level 1)
- Teacher (Admin Level 2)
- Video Approver (Admin Level 3)

Website Users
Students (rather any user having the link can browse the website, however only students can login with their respective username and password to access the learning content)

General Functional Requirements
1. The school/college learning content shall be available to only the students who login to the portal through their mobile number (username) and password.
2. There shall be a portal admin user to keep track of all the activities in the portal.
3. The database storing the video content and the user details shall be encrypted to maintain security in the system.
4. The administrator of LMS shall have access to admin module using which admin shall be able to access all the features available to all the users.
5. Administrator shall have administrative privileges for all modules activities like creation of users, deleting the user, setting the user active & inactive,

Assignment/ Updating / Revoking the roles & privileges, view and download feedback reports, view and download registered user data, edit registered user profile, send registration email, view password of candidate, add master data, deactivate user registration and view registration, edit profile.
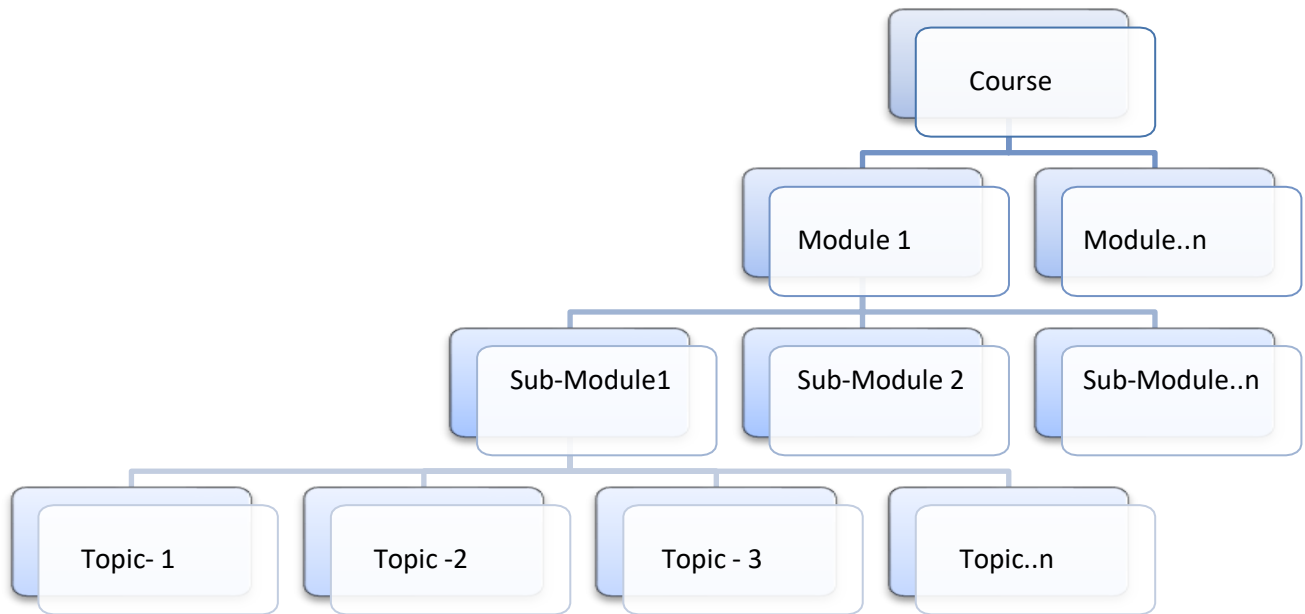
LMS Portal User Roles

The System shall have following User Roles:

1. **Super Admin User:** This is the master role of the system. The super admin shall have privileges to create different admin users below its hierarchy. The unit masters and other users shall be created by this role in the system.

2. **Registered User:** This is an authenticated role of the system. Only registered users shall have access to the e-learning content related to the respective class/subject/medium.

3. **User (Unregistered User):** This user role shall only be able to navigate through the static content of the system. There shall be no privileges for accessing the content or downloading it from the portal. Only informative content shall be accessible to this user role of the system.

Masters

1. Course Master - The administrator of LMS shall be able to manage (add, modify, delete) all the courses that the portal shall host, followed by the module, sub-module and topics. The Dynamic index shall be generated in a collapsible format. The Modular structure to blow down until topic level.

2. Content Master – The administrator of LMS shall be able to manage (add, modify, delete) content related to all the courses, modules and topics.
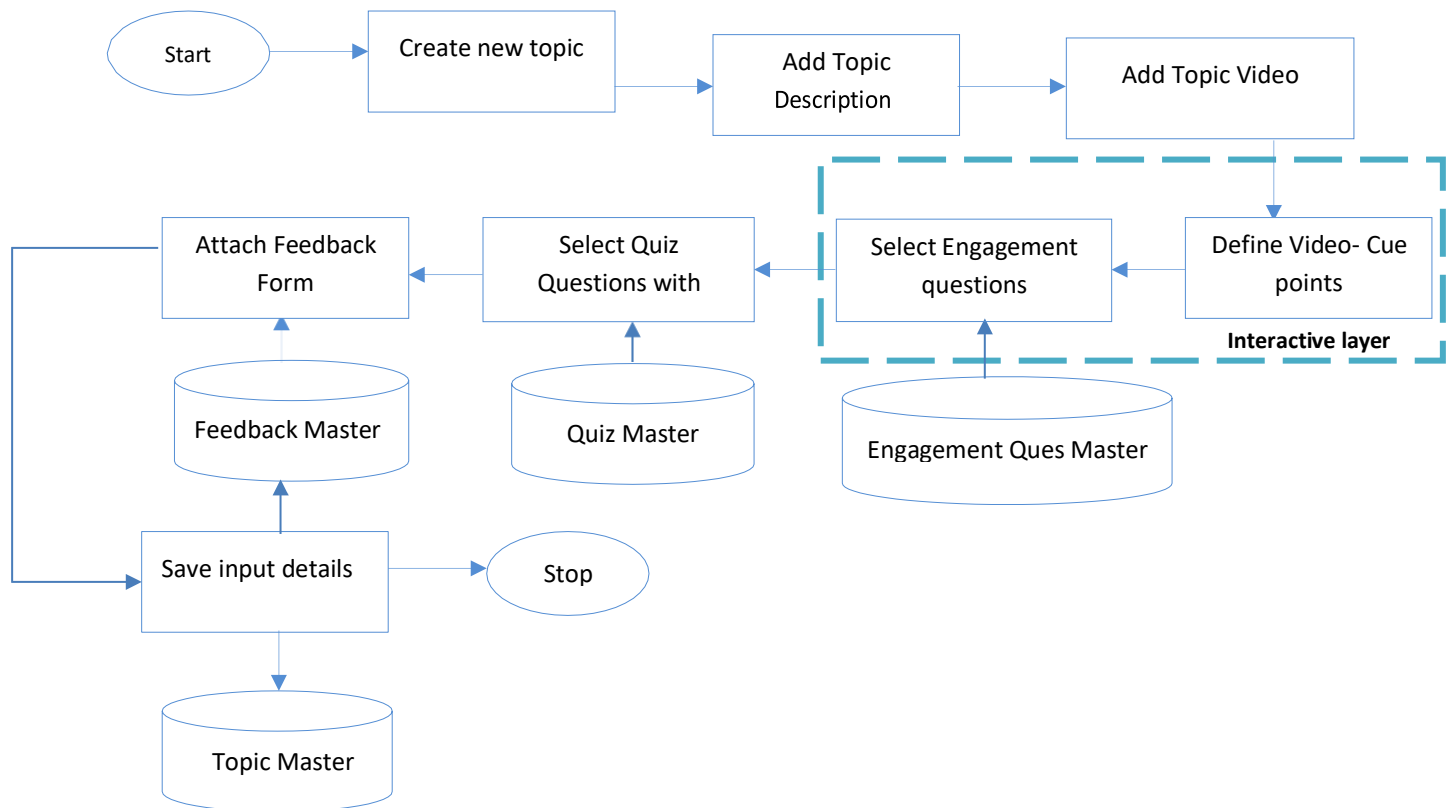
    a. The content in the system shall adhere to the hierarchy of Course>> Modules>> Topic. Every course shall have comprised of a set of Modules, and every module shall be made of topics.

3. Topic Master

    a. The Topic Video created shall be interactive and have Cue points where the layer of interactivity is to be added.

    b. This layer shall have questions that are to be displayed to the user when the Cue point occurs in the video player.

    c. The event triggered will pause the video and the user will be able to input the correct answer for the question asked.

    d. The System shall store the answer of the user, validate its correct and display an alert accordingly.

    e. The System shall then resume the video after the Cue point, as session when the video was paused will be stored by the System.

f. Admin shall be able to set privileges for the content to prevent any user from accessing the content form the portal.

g. Admin shall be able to define maximum three cue points for each topic.

h. The Cue points need to be defined at a regular time interval.

i. There shall be separate Cue Point Question repository in the System linked to each topic as required.

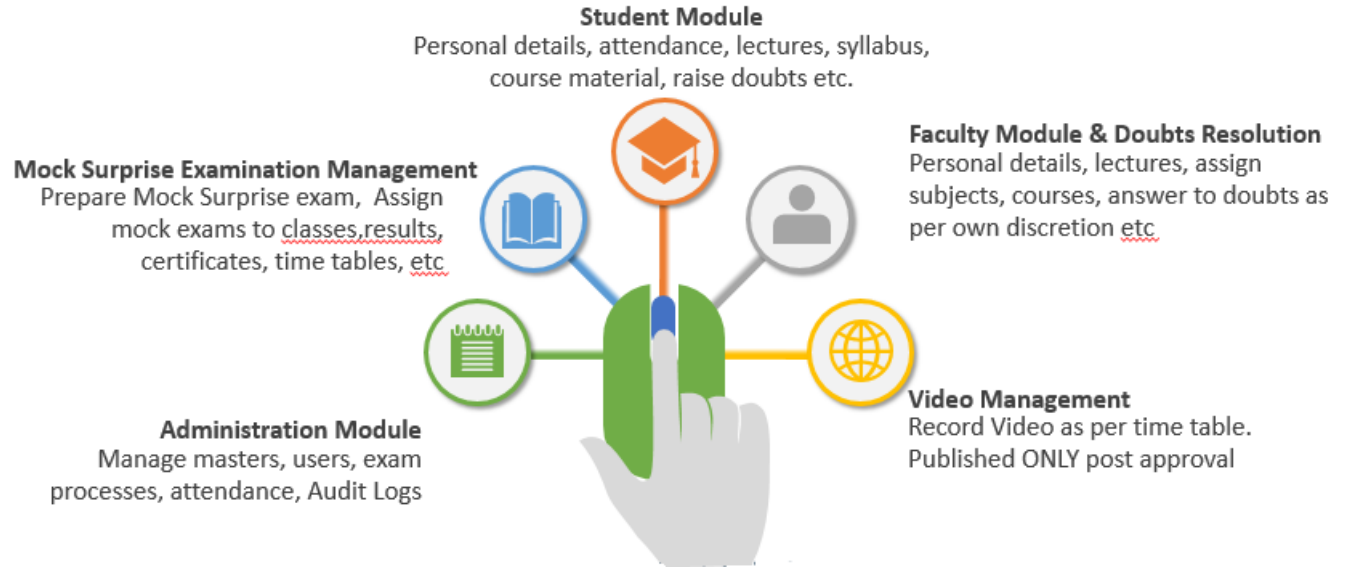Workflow of a new Topic Creation (Learning Object):

4. Quiz Master - The administrator of LMS shall be able to manage (add, modify, delete) quiz content related to every module of the system.

5. Feedback Master - The administrator of LMS shall be able to manage (add, modify, delete) Feedback content related to every module of the system.

6. Report Master - The administrator of LMS shall be able to manage all Reports that are generated by the system.
   a. Admin shall be view and download the users report in the system related to each topic.
   b. System shall generate statistical data for the no of users who viewed each topic of every module and every course in the portal.
   c. Admin shall be able to download Quiz score reports related to every topic of the system.
   d. Admin shall be able to download Feedback report related to every topic and modules to a particular course in the system.

7. Exam Master - The administrator of LMS shall be able to manage Exam related contents related to each Course available in the System.
   a. Admin shall be able to add new Exam for any available course in the system.
   b. Admin shall be able to modify the details of existing certification exam in the system.
   c. Admin shall be able to import/update/delete list of exam centers in the system.

Students/Candidates Workflow

1. Students will be able to login to the website and shall be able to select the topic for which the e-learning content has to be displayed.
2. All the items in the Module index shall be clickable links and shall open respective learning content in the form of Audio-Video (AV) file.
3. For each Topic, the content shall stream in the order of Title, Description, Video, Lab Assignment, Quiz and Feedback.
4. After completion of the Video content, an assignment that has to be performed by the user shall be displayed.
5. The Module ID and Topic ID in combination shall serve as unique identifier for the flow of each e-learning resource.
6. The Quiz section shall be a separate object for this release, and the feedback shall be followed by the Quiz.
7. The quiz shall have Multiple Choice Questions based on the e-Learning topic selected by the user.
8. The user/student/candidate has to login to be able to view the quiz.
9. The User has to select only one of the options, for the question displayed.
10. Submit button shall navigate the user to the next question in case of correct answer, or shall redirect to an explanation page related to the question in case of Wrong answer.
11. In both the cases, for right or wrong answer respective 1 or 0 score shall be recorded for the particular user account.
12. At the end of the Quiz, the score of that particular user shall be displayed.
13. The Score prompt shall also have conditional suggestions for the user.
14. In case the score of the user if below 60% (or any percentage defined by the admin), then the prompt shall suggest the user for a topic revision and shall redirect the home page of the learning module, where the e-learning video can be replayed.
15. The Score for the Quiz for each topic is to be summated, for all the topics in one particular Module.

Seamlessly Integrate School Departments & Collaborate Workflow

Student Module
Personal details, attendance, lectures, syllabus, course material, raise doubts etc.

Faculty Module & Doubts Resolution
Personal details, lectures, assign subjects, courses, answer to doubts as per own discretion etc

Mock Surprise Examination Management
Prepare Mock Surprise exam, Assign mock exams to classes, results, certificates, time tables, etc

Video Management
Record Video as per time table. Published ONLY post approval

Administration Module
Manage masters, users, exam processes, attendance, Audit Logs

Eclasses Key Modules

STUDENT INFORMATION — 01
All information of a student like his attendance, grades, achievement,

ACCESS TO PARENTS — 02
avail updates about their child's academic activity

Question Bank Management — 03
Prepare question bank for mock exam

Live Interactive Doubt Solving Session — 04
Doubts can be solved in live session at discretion of teacher

Audit Log — 04
Audit Log of each activity in the system

Key Modules

Teacher Information — 05
Capture teacher details

Assign Course/Subjects/Class — 06
Assign class/subject to teachers

Time Table Management — 07
Create time table for diff courses/classes.

Video MANAGEMENT — 08
Record videos, post approval publish it as per sanstha time table

REPORTS & DASHBOARDS — 08
Generation of reports & dashboards for better decision making