

# **CSE300 Software Engineering**

# **Learning Management System**

**Group 8**

# **Construction Module Document**

# **Frontend Modules**

# We have a total of 17 HTML modules. Following are the functionalities of each module.

1. **base.html -** This is the base template for our system. Every page extends this template and hence, consistency is maintained. This page consists of a navigation bar and a container of other pages’ contents.
2. **login.html -** This page contains a form where the user has to input its email address and password in order to log in. Both faculty and student are directed to the same login page and further are redirected to the respective page according to their designations(i.e. faculty or student). This page provides access to only those users who are enrolled by admin.
3. **dashboard.html -** This page displays thecourses taken by the student. It also displays the total number of credits along with due assignments. The student can visit any particular course via this page.
4. **static.html -** This page displays cards that link assignments, grades and resources. This page is the same for both the faculty and students.
5. **student\_assignment.html-** This page displays all the assignments of any enrolled course. The user can add an assignment, edit it under the given deadline and can view their grades (if faculty has evaluated) via this page. The structure of this page is in the form of cards with assignment name, its deadline and option to add or edit assignment submission and view grades.
6. **student\_upload.html -** This is a submission page of any given assignment. The student has to choose the file and submit the assignment before time. The question paper of the assignment is also visible here and hence, the student can download it right here. It contains a table with details such as PDF of assignment, weightage, deadline and submission status.

1. **get\_student\_grades.html -** Students can view the comments and marks of the submitted assignment, given to them by faculty on this page.
2. **download\_resouces.html -** Students can view all the resources uploaded by faculty in a particular course and download them**.**
3. **faculty\_dashboard.html -** This page displays the total number of courses taken by faculty and the number of students enrolled in each course. It also displays the total number of assignments remaining to grade in each course. Faculty can visit the assignment and grading page from here.
4. **faculty\_assignment.html -** This page displays the total number of assignments given in a particular course. Faculty can add as many as assignments they want and also edit changes in any of the uploaded assignments like it can change deadline, PDF (Assignment) or weightage. Edit/Upload option given on this page will take faculty to edit\_upload\_assignment page.
5. **edit\_upload\_assignment.html -** This page is basically a HTML form page for faculty, where they can edit/add assignments by entering deadline, marks and question paper in the form of PDF. After adding or updating changes, this page redirects to faculty\_assignment.html where changes that faculty have done are visible.
6. **faculty\_assignment\_list\_for\_grading.html -** This page displays name of all the assignments that are given by faculty in a particular course. Along with name, it displays the deadline and its status, for eg: If status is “Pending” it means that there are still submissions of students which have to be graded. If garding of all assignments are completed, then status will be “Completed” and if there are no submissions from any students the status will be “No submissions yet”. Clicking on any of the assignment\_id will redirect to students\_submissions\_list.html page
7. **students\_submission\_list -** This page displays a list of all the submissions of students along with their student ID and submission status i.e. before or after how many hours from the given deadline. The structure of this page is in the form of a table, where the last rows represent grades. If faculty has already grade the assignment then, there will be an option of editing and if faculty is yet to grade an assignment then there will be an option of “Enter marks” which will redirect to faculty\_grades.html page.

1. **faculty\_grades.html -** This page contains student submission (in form of PDF), total marks of that assignment and submission status i.e. before or after how many hours from the given deadline. Faculty is supposed to review students' submissions (PDF) and enter marks and comments. After submitting, the marks and comments of that specific assignment of that specific student go to the database and the page redirects to students\_submission\_list.html where changes are reflected.
2. **resources\_list.html -** This is the HTML pagethat displays all the resources, its PDF and description uploaded by faculty in particular courses and gives an option to add more resources.
3. **add\_resource.html -** this HTML page allows faculty to add resource and description.
4. **Edit\_profile.html -** This HTML page allows users (faculty or students) to change password.

# **Backend Modules**

In Django, **Views** are Python function or class that takes a web request and return a web response. **Views** are used to do things like fetch objects from the database, modify those objects if needed, render forms and return an HTML page.

Above mentioned all HTML pages are rendered for different views written in python. The list of views and their respective HTML pages where it is rendered are as follows-

1. **loginPage() -** This view is used to authorize faculty or student and render it to student dashboard or faculty dashboard if that user exists in the database. It takes care of automatically authorizing the user to dashboard given that the user has not logged out. Also it takes care about session timeout functionality.
2. **logout() -** This view log’s out faculty or student from the lms.
3. **dashboard() -** This view renders to student\_dasboard page where all the necessary info about students is displayed from the backend.
4. **faculty\_dashboard() -** Again, this view renders to faculty\_dasboard page where all the necessary info about faculty are fetched from the backend, like total number of courses taken by faculty, number of students enrolled in each course, total number of assignments remaining to grade in each course.
5. **faculty\_assignment() -** This view renders to faculty\_assignment.html. This views renders, course ID, course name, assignment info. Here assignment info is a dictionary that contains assignment ID’s (list of all assignments), marks of each assignment, PDF and deadline.
6. **edit\_upload\_assignment() -** This view renders to edit\_upload\_assignment.html. It renders course\_id and course\_name to the corresponding html page. If faculty is editing this assignment, then all the new information is updated to the database and it is adding a new assignment then all the data is saved in the backend under Faculty\_Assignment model.
7. **faculty\_assignment\_list\_for\_grading() -** This view renders all the data to faculty\_assignment\_list\_for\_grading.html. All the information of students' submission from Student\_assignment model and Assignment from Faculty\_Assignment model is fetched. It also sends the status of assignment remaining for grading to this page.
8. **students\_submission\_list() -** This view renders to students\_submission\_list.html. This view fetches all the information of students like it’s ID, email, assignment\_id, it's submission and its submission status and stores this information in a dictionary and renders it to htm page.
9. **faculty\_grades() -** This view renders to faculty\_grades.html. It fetches all the assignment information added or updated by the faculty and stores in Faculty\_Assignment model.
10. **static\_page() -** This function renders the static.html page and provides it with required context. We have the same page for both faculty and students, so designation and course information is passed so that the content is displayed based on the designation of the logged in user.
11. **student\_assignment()** - In this function we fetch the content corresponding to the current student logged in. This function basically fetches the assignments given to students by any particular faculty and then this content is rendered to student\_assignment.html.
12. **upload\_student\_assignment() -** This function renders student\_upload.html by providing the course\_id and assign\_id as context. When the student adds a submission this function saves the submission to Student\_Assignment model.
13. **get\_students\_grade() -** This view renders to students\_submission\_list.html. This function fetches marks and comments uploaded by faculty in particular assignments from Student\_Grade model and displays in form of table by rendering it to its corresponding HTML page.
14. **resources\_list() -** This view renders to resources\_list.html and fetches all the resources uploaded by faculty in a particular coursetill date. Delete action in resources is also performed in this view.
15. **add\_resources() -** This view renders to add\_resource.html. Add/Edit resources action performed by faculty is taken care of in this view.
16. **download\_resource()-** This view renders to download\_resource.html and fetches all the resources uploaded by faculty in a particular coursetill date so that students can view and download that particular resource.
17. **edit\_profile()-** This view renders to edit\_profile.html and fetches user name and id and allows to change its password and update to database.