

# Learning Management System

## Abstract

A Learning Management System for a college that will be a one stop solution for all Course related information to the students. Features like Course Details, Time Table, News Forum will be incorporated into the application. It will be hosted on RaspberryPi. Other features include QR Attendance, Access Level Specifications, Messages feature.

The technologies used are HTML, CSS, JavaScript, jQuery, BootStrap v4, NodeJS, ExpressJS, MySQL, JohnnyFive, Git etc.

## Functions

1. Login page
2. Attendance
3. News forum
  - a. General moodle news
  - b. Course news
4. Discussion forum(for particular course/topic)
5. Participants of course
6. Profile
7. Sending messages/chats
8. Calendar
  - a. Automatically mark dates for exams
  - b. Auto marking of due date for assignment/quizzes
  - c. Customizable - Add events
9. Students user
  - a. All courses(basic-handout,instructor,timing)
  - b. Registered courses with visible notification for new uploads and access to material
  - c. Timetable
10. Instructor user
  - a. Mailing list of students
  - b. Quizzes / assignment
  - c. Grading system
  - d. Uploading course material
  - e. Sending news/announcements
  - f. Timetable

- g. Granting access rights to TAs
- 11. TA user
- 12. Admin

## **Tools**

Front-End: HTML5, CSS3, JavaScript, jQuery

Back-End: Nodejs, Expressjs

Database: MySQL

Hosting(On Raspberry Pi) - JohnnyFive(A javascript library)

Testing - JSLint, Jest

Other Dependencies - Live-Server(For development), Material Design, Font-Awesome

## **Scope and Limitations**

The project can be deployed at BITS Pilani, Goa Campus as an upgrade to the Current Moodle Server. It can include other features like Automated Pipelined Grading etc.

Limitations include the small group where it will be useful. It will not be hosted on the web, rather on the intranet.

## **Team members**

1. Dipak Agrawal
2. Shubham Garg
3. Shravan Bharat Doda
4. Kapish Patel
5. Rinal P