Grade management system

# Frontpage

## Authentication

Authentication: Register, Login, Logout

Social login: Google Sign-In, Facebook Login, ...

## Authorization

Secure API by user role: Teacher, Student

## Teacher

### Class management

#### Create class

#### List classes

#### Show class details

#### Show list of teachers and students in class

### Class invitation

#### Create a class invitation link and join the class by link

#### Invite teachers/students by email 1 Send an email with invitation links

### Grade structure

Interactive UI to manage grade structure (like Google Form)

#### Show current grade structure

#### Add a grade composition with a name and grade scale

#### Remove a grade composition

#### Update a grade composition (name, grade scale)

#### Arrange a grade compositions position

### Grade management

#### Download default csv/Excel (xlsx) template for student list (StudentId, FullName)

#### Class owner uploads a csv/xlsx file with student list (StudentId, Full name)

#### Show Students (pre-upload full student list) x Grades board

#### Map Student Id with Student account in grade board

#### Input grade for a student at a specific assignment

#### Download default csv/Excel (xlsx) template for grades for an assignment (StudentId, Grade)

#### Teacher uploads a csv/xlsx file for grades of all students for a specific assignment

#### Show total grade column at grade board

#### Export Grade board to a csv/xlsx file

#### Mark a grade composition as finalized

Students cannot view their grades until the teacher marks that grade composition as finalized.

### Grade review

#### View list of grade reviews requested by students

#### View grade review details: Student, grade composition, current grade, student expectation grade, student explanation

#### Comment on a student review

#### Mark the final decision for a student review with an updated grade

## Student

### Join classes

### By code

### By invitation link

### Profile

#### Manage profile

#### Student ID and account mapping

Student can map their Student ID with their account to view their grades

### Class information

#### List joined classes

#### View Grade structure

#### View class members: teachers, students

### Grade viewer

#### View his overall grade

The student can only view his overall grade, he cannot see other students’ grades.

#### Request a review for each grade composition

The student will post his **expectation grade** and his **explanation message**.

#### View and comment on grade review between the teacher and himself

## Notification

Each member has a notification list that can be pushed to.

### Each member can view his notification list

### Some actions can push notifications to other members’ notification lists

Students receive a notification when:

* When a teacher finalizes a grade composition, create notifications to all students in the class.
* When a teacher replies to a student grade review.
* When a teacher creates a final decision on a mark review.

Teachers receive a notification when:

* The student requests a grade review.

# Admin page

### Authentication

### Manage user accounts

#### Lock/ban an account

#### Manual map or unmap StudentId of an account

### Manage classes

# Bonus

Realtime push notifications: socketio