

# Online live Exam and Evaluation with analysis System

The system provides a platform for online live examinations and generates comprehensive analysis reports based on the evaluation of exam results and behavioral pattern of the student. The analysis could be based on blooms taxonomy or even otherwise. The system is applicable to all kinds of educational institutions like schools, colleges, entrance coaching centers, anywhere examination are required to be conducted.

The main purpose of the system is provide an atmosphere for educational institutions to conduct examinations malpractice free and to provide a feeling where students writing exams in class room under the supervision of the teacher. For achieving this there should a provision for teacher to view the virtually created exam answer paper section of every student attending exam noting various parameters like delays in writing, mute/ record sound etc. There will be provision for school to put both objective and descriptive questions and the choice of creating question paper accordingly will be purely optional for the teacher who is in charge of exam. May be objective type will be provided to smaller class students and descriptive to higher classes. There can be an option to record the descriptive answer as voice and even

write or draw down descriptive answer and then scan / take picture of it and append it to the answer sheet mentioning the question number. All answer sheets should be in a printable format.

Timings will be set for exam duration which can be altered by the teacher in charge of examination at any point of time during the exam. Warning notifications will be provided for students at regular time intervals when nearing the allotted time. Once exams are over the answer sheets will be saved in teacher's login or folder. Teacher in charge of exam will have provision to set the question paper either with the blooms parameters if needed or he/she can directly set the question paper. Various difficulty level options for question paper also to be considered. Teacher can put marks for each question while preparing question paper. Question paper prepared with blooms parameters for different classes under the school system will be saved to the question paper data bank.

The system works on a subscription model where different packages are devised according to options like Number of students, Number of exams, a comprehensive custom package considering both number of students and number of exams. Validity of packages to be considered. Any institution can register their details through the website using the registration page or even super admin (Company) could directly register institutions. A referral option( Person who is registering the institution or the one who has recommended the software to the institution) is provided while registering. Once registered and contacted by company and approved. There will be an option to conduct a (single) trail examination and options to evaluate and publish the analyzed report, limiting the number of students to maximum 35. Super admin will have privilege to increase the trail examinations for institutions.

Once exams are scheduled the same is intimated to the students through sms/ email. Once answer papers are evaluated and analyzed the result also will be send by sms / email.

## Functional Modules

### Back End - Super Admin

1. Back end login page for superadmin
2. Back end dashboard
  - a. Show important details like Notifications, Expiring subscriptions , newly registered schools etc
3. Packages
  - a. List packages - In a data table with options to sort, filter, search etc with action buttons like edit, delete
  - b. Add/Edit/ Delete Packages;  
Contains fields like Package name, price per month, max students, max exams, Bloom's taxonomy options, active, status etc
4. School/Organizations
  - a. List School - In a data table with pagination, sort, need options to search school with major fields, filter options also needed, the data table should have actions buttons for view school details, edit school details , update subscription, update status etc
  - b. Add New School - Add Page fields should be organized in a tab wise manner if needed, Fields might contains
    - i. school name, address, pin, city, state, country, pin, phone, mobile, school board/type, class upto, email, status

- ii. Contact/admin details like contact persons name, mobile designation, email, address, enable marketing (so he can refer other schools/organizations) with the help of a reference code. May be we can think of a separate menu for marketer where he can register and generate his/her referral code.
- iii. ~~Choose subscription package, when choose package the package options like price, Max number of exams to be conducted, max students, subscription expiry date, bloom's taxonomy (optional) etc should be populated and if needed the super admin can edit those values to made a custom package for that particular school~~
- iv. ~~Allocate sms gateways~~

~~5. SMS Gateways - List/Add /Edit/Delete SMS Gateway details~~

~~6. Email/SMS Templates -> List /Add /Edit/Delete Templates for emails and notifications~~

7. Marketing persons-

- a. List/Add/Edit/Delete persons
- b. View the list and details of schools registered under based on reference code or name and contact details of recommending person.

8. General Settings if any

## Back End - School Admin

- 1. Back end login page for School admin, teachers other employees if any
- 2. Profile Page
  - a. View profile details / Update limited profile details
  - b. View Subscription package details, show remaining days , exams and students count etc
- 3. Schools Dashboard

- a. Shows the summary of Ongoing exams , upcoming exams, exams pending to be evaluated, exams to be verified after evaluation, Question papers waiting for approval, notifications etc and other important informations

#### 4. Teachers/Employees

- a. List teachers in a data table with the options of search/filter/sort/paginate and data table should contains the action buttons for view, edit, delete, send login details (username and password to login into the system- username might be the email itself) etc
- b. Add/Update/Delete Classes with fields like Name, mobile, email ,designation, choose classes, choose subjects taken

#### 5. Class

- a. List Classes in a data table with the options of search/filter/sort/paginate
- b. Add/Update/Delete Classes with fields like Class Name, Choose Subjects, Add division to each class. ~~Even a general category to be considered for example when it's a given for a PSC coaching center.~~

#### 6. Students

- a. List Students in a data table with the options of search/filter/sort/pagination and table should contains actions buttons for update/view/promote students and sent login details to parent etc
- b. Add/Update/Delete Students with fields like
  - i. Name, class, division, address, gender, age, dob,
  - ii. Parents details like guardians name, relation,mobile, email, gender, ~~address home,~~  
~~address office, mobile, email, office phone, etc,~~
  - ~~iii. More details about student like height, weight, learning disability or physical disability etc~~
- c. View Student page
  - i. All students details should be visible here

- ii. There is an option in the page to reset/update his password
- iii. Students Overall performance details
- iv. Exams summary etc and option to navigate to each exam he attended to view, print out his answer sheet, ~~other analysis made based on the bloom's taxonomy~~

## 7. Exams Term

- a. List Examinations in data table with the options of sort/search/paginate, filter and table should contains actions buttons to edit, view, add Exam, Approve questions etc
- b. Create Examination Term name with the fields like
  - i. Examination Term name etc ( This option is only be performed by admin users and he must do this only after creating all classes with complete subjects). (it is only indicate exam like Mid Term, Class test, Annual examination etc)
  - ii. Add Exam to the above created examination name and the fields might include
    - 1. Choose exam name from dropdown (like from mid term, annual, onam exam etc), Exam code, year, class, subject, exam type (objective, descriptive, both), exam question time based (whether each question have specified time to attend or not) , total mark, duration of exam in minute , max extended time in minute, exam preparation time in minutes, scheduled date and time, intimation time, select examiner from the list, choose evaluators from the list etc
    - 2. To avoid malpractice choose options from list (~~record audio, video, random screenshots~~), based on the options necessary actions to be performed at the time of live exam -
  - iii. Edit Created exam ( before it going live)
  - iv. View details of exam,
  - v. Show and Prepare question paper (only admin/evaluators and examiner can prepare the question paper for the exam)

1. Add question to the exam with fields like
    - a. Question text, mark, question type (objective/descriptive - if the exam type is objective then, it come by default and no other options available), ~~question level (hard/medium/easy); max time for question if applicable, checkbox for add this question to question bank or not, other blooms parameters etc~~ (question might be an image ).  
Note: The questions can also be search from the question bank to fill the relevant boxes
    - b. Right option and other answer options (answer options also be images) if it is an objective type
    - c. ~~Add multiple tags to the questions (fill this field, if only it needs to be add to the question bank)~~
  2. Complete the question paper and submit it for approval.
  3. Approve question papers (this action done by admin/examiner etc )
  4. View and Print question papers (this action should be role limited)
- c. Approve/Activate exam for the scheduled date and time
  - d. Sent exam schedule to parents and examiner as email and sms
  - e. Evaluate exam after exam over - Filter exams to be evaluated from the list and click on the action to view evaluation page.
    - i. This page displays the students list in a data table who have attended/absent in the exam with exam start time/end time etc, Need options to search/sort/filter students. There should be action buttons in the list to view each student's answer sheet to evaluate it.
    - ii. Evaluation page- If it is an objective type question the mark column should be auto filled and if it is descriptive type then the examiner needs to manually enter the

mark for each answer. ( The mark should not exceed the allowed mark)- After evaluation the answer sheet should submit for verification

~~Perform bloom's taxonomy analysis along with this~~

- f. Verification of Exam after Verification of answer sheet - Only assigned users able to do this by viewing and verifying answer sheet and then verify the exam (ie, ready to publish results)

#### 8. Live exams

- a. The examiner is able to view live students progress, and if necessary he can extend the time ~~for individual students~~ or all the students. For doing the above he should enter a valid reason and time extended in minutes

#### 9. Publish results

- a. The admin can publish results of exam individually or all the exams of a class at time or all the exams of a Term at a time (but he must ensure that all the exams are completed and in ready to publish status)

#### 10. Question bank

- a. Assigned users can add/edit/update/view questions to question bank

## Front End

### School Registration

- Enter Basic School details, contact details, reference code, preferred package
- An sms and email will be sent to the registered school mobile and email with an activation link
- By default the created school account is under a demo package until it is manually changed to the preferred package/custom package by the superadmin after payment.



- The reference code entered by the school at the time of registration will indicate the person who gets commission who might be a employee of other school or a marketing person, so there should be an option for creating reference code in the website
- After the email activation the school admin will be redirected to a school login page where he will be asked for a username and password to login

## Students Login

1. A welcome email will be send to parents/ registered email address when school send it, and it contains the username and password to login

## Profile

1. He can update limited fields but can view all the pages
2. Can change password
3. Update mobile and email but need to verify it with otp

## Dashboard

Will show

- Summary of Attended exams
- Upcoming exam/ live exam details
- Grade/ analysis details
- Notifications etc

## Exams

1. Live exams

When the scheduled time passes the exams status automatically changes to live and students can click on it to attend.

## 2. Attending exam

- a. ~~There should be a preparation time based on exam settings. during this time the students can read instructions about the exam.~~
- b. ~~When preparation time ends the real exam will starts and students can answer each questions one by one~~
- c. The questions and answer options will display in the left side and on the right side there will be palette for question numbers with white color initially, so that the students can move to any question by clicking on the number
- d. After selecting the right answer the student must click on the button named "Next" or "Previous" to mark his answer at the same time the question number in the palette will change its color from white to green to indicate it is answered
- e. There also a button named "Mark for Review" to review the question later, when student click on it the palette color turned to purple to indicate this question is marked for review
- f. The user will get a warning message when 5 or 10 minutes to before finishing the exam based on the exam settings
- g.—In the page there also should be a summary of answered, unanswered, mark for review questions
- h. When time ends show this summary and user should not be able to alter/his answers

## 3. Completed exam

Completed exams should be listed on a data table with options to sort/search/filter exams and must have action buttons like view answers, analysis, print answer sheet etc

## 4. Upcoming exams

List - use data table

5. Evaluation Details

- a. Mark Summary, Over all Performance, Analysis

6. ~~Study materials/syllabus~~

7. Notifications

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