

Step1: Grammatical parsing (noun identifying) and categorizing using general classification

User Scenario:

The system will be used for conducting online coaching. The end users will be the system admin, moderators, students, teachers, parents and the payment partner.

There won't be an option to create an 'admin' account by an existing user as there will be only one system administrator. At the time of deployment of the system, the pre-generated admin credentials i.e. their username and password will be provided to the administrator.

System admin can add information such as the name, email, address, mobile number, username, password and role about the moderators, teachers, students and parents and also assign them their respective roles. There will be an option for teachers to apply for certain positions and the admin can approve these requests. The admin will also be able to remove any users if needed.

The system admin can view the activity log - the results, attendance records and rankings of the students, current activities of the coaching such as class and test schedules, the notifications about the classes, results and rankings sent out to the students and parents, etc. They can also generate reports of these activities.

The system admin can do all of the activities of other users.

They can also add moderators who will have the same privileges as the admin except being able to delete the admin.

Students can sign up by giving name, username, password, previous academic results, hsc registration number. After giving this information he/she will get a payment request. After payment the student has to wait till the verification of the admin/moderator. After their approval, the student will get a confirmation email.

Students can log in to the system using username or email address and password. After logging in to the system students can view their personal information, previous results, previous recorded classes, current rank among the students, upcoming class schedule, resources provided by the teachers/moderator in their dashboard. Personal information like name, session, institution, email, mobile number. Student can attend the class, give exam.

Parents will be able to sign up by providing their name, email, mobile number, preferred username and finally their child's/childrens' username(s) as reference. They will be able to login using their username and password.

Moderators are staff hired by the System Admin to help oversee the website. They can do almost everything an Admin can. The Admin and the moderators can both delete and designate Moderators but the Moderator cannot delete the Admin.

The class schedules can be created, edited and/or removed by the system admin or moderators. They will also be able to edit the attendance records, marksheets, and ranking lists of the students. The system admin can create, upload or delete study resources or materials. They can manually add a student or teacher account.

Prospective Teachers will apply to sign up as a Teacher. They will be **redirected** to the **Teacher Application page** where they will give their name, email, phone number, password, **valid credentials**, which role they want to apply for (eg: which subject they want to teach, do they want to check copies or take classes or make resource materials etc)

The Admin or Moderators will **contact** the **Prospective Teacher** based on their information (take **interviews** if they wish) to **hire** the Teacher or **reject** them. After hiring the Teacher, Admin or Moderators will approve that Teacher's Application on the Website, upon which an account will be created for the Teacher.

Admins and Moderators can **ban** specific email addresses from applying if they are **abusing** the **Teacher Application Form** even after being rejected multiple times.

Teachers can **host Video Conferences** for classes. They can **upload resources**, **check copies**, **update the marks** of their students, and **manually give attendance** to a student despite the student being **absent**. A teacher's role determines what they have **access** to. For example a teacher who only checks copies cannot host Classes, or a teacher who takes Classes cannot update the student's marks. Admins and Moderators can change or **add a Teacher's roles**.

External Entities	User
Things	Admin Credentials Name Email Address Mobile Number Username Password Role Activity Log Results Attendance Records Ranking Class Test Schedule Reports Privileges Previous Academic Results Hsc registration Number Information Payment Request Personal Information Recorded Classes Resources Reference Marksheets Ranking List

	Teacher Application Page Valid Credentials Prospective Teacher Interviews Video Conference Study material
Occurrences or events	Notification Confirmation Email
Roles	Users System Admin Moderators Students Teachers Parents Payment Partner
Organizational Units	System online coaching
Places	-
Structure	-

Step2 : Potential class Identification

S1	Noun	Characteristics Number That Applies	Remarks
1	Student	1,2,3,4,5,6	Accepted
2	Teacher	1,2,3,4,5,6	Accepted
3	Moderator	1,2,3,4,5,6	Accepted
4	Parent	1,3,4,5	Accepted
5	Admin Credentials	1	Rejected
6	Name	1	Rejected
7	Email	1,2	Rejected
8	Address	1	Rejected

9	Mobile Number	1	Rejected
10	Username	1,	Rejected
11	Password	1,	Rejected
12	Role	1,	Rejected
13	Activity Log	1,2,3,4,5	Accepted
14	Results	1,2,3,4,5	Accepted
15	Attendance	1,	Rejected
16	Records	1,	Rejected
17	Ranking	1,2	Rejected
18	Class	1,2,3,4,5	Accepted
19	Test Schedule	1,2,3,4	Accepted
20	Reports	1,2,3	Accepted
21	Privileges	1,	Rejected
22	Previous Academic Results	1	Rejected
23	Hsc registration Number	1,	Rejected
24	Information	1,	Rejected
25	Payment Request	1, 2,3,4,5	Accepted
26	Personal Information	1,4	Rejected
27	Recorded Classes	1,4,	Rejected
28	Resources	1,2,3,4,5,6	Accepted
29	Reference	1,	Rejected
30	Marksheets	1,4	Rejected
31	Ranking List	1,4	Rejected
32	Teacher Application Page	1,5	Rejected
33	Valid Credentials	1,4	Rejected
34	Prospective Teacher	1,2,3,4,5,6	Accepted
35	Interviews	-	Rejected

36	Video Conference	-	Rejected
37	Resource	1,2,3,4,5,	Accepted
38	Users	-	Rejected
39	System Admin	1,2,3,4,5,6	Accepted
40	Moderators	1,2,3,4,5,6	Accepted
41	Payment Partner	1,2,3,4,5,6	Accepted
42	System	1,	Rejected
43	Online Coaching	1,	Rejected

Step3: Attributes Identification

-> see step 5

Step 4:Method Identification:

Verb	Remark
Conducting	Yes
Create	Yes
Deployment	Out of scope
Pre-generated	Out of scope
provided	Out of scope
Assign	Yes
Apply	Yes
Approve	Yes
View	Yes
Add	Yes
Delete	Yes
attend	Yes
give	Yes
sign-up	Yes
sign-in	Yes
oversee	Out of scope
designate	Yes
Edit	Yes
Upload	Yes
Redirected	
Contact	Out of scope

hire	Out of scope
reject	Yes
ban	Yes
abusing	Out of Scope
host	Yes
check	Yes
update	Yes

Step-5:

Class Name	Attributes	Methods
Student	Name, email, address, Mobile number, Username, Password,	giveExam(),viewResources(), attendClass(),viewTrackRecord(),signUp()
Teacher	Name, email, address, Mobile number, Username, Password, Role	hostClass(),uploadMaterials(),checkCopies().
Parent	Name, email, address, Mobile number, Username, Password	viewTrackRecord()
Admin	Name, email, address, Mobile number, Username, Password	addUser(),approveRequest(), createRoutine(),deleteUser(), editRoutine(),uploadMaterials (),
Moderator	Name, email, address, Mobile number, Username, Password,	addUser(),approveRequest(), createRoutine(),deleteUser(), editRoutine(),uploadMaterials (),
Prospective Teacher	Name, email, address, Mobile number, Username, Password, Wanted Roles	apply()
Activity log		
Results		
Class		

Routine		
Exam		
Resource		

// do upto crc

Common Attributes:

Common Methods:SignIn(),SignOut().

Class Card:

Student
Name Email Address Mobile number Username Password,
giveExam() viewResources() attendClass() viewTrackRecord()

Teacher

Name Email Address Mobile_Number UsernamePassword Role
hostClass() uploadMaterials() checkCopies()

Parent
Name Email Address Mobile_Number Username Password
viewTrackRecord()

Admin
Name Email Address Mobile_Number Username Password
addUser() approveRequest() createRoutine() deleteUser() editRoutine() uploadMaterials()

Moderator
Name Email Address Mobile_Number Username Password
addUser() approveRequest() createRoutine() deleteUser() editRoutine() uploadMaterials()

Prospective Teacher
Name Email Address Mobile_Number Username Password Wanted Roles
apply()

Class
Class_id Class_Time
takeAttendance()

Exam
Exam_id Time
saveExamCopies() viewExamCopies()

Resource
Time Class Type
viewResources() editResource()

Routine
Class Class_Time Exam_Time
viewRoutine()

CRC:

Student	
Methods	Collaborator
giveExam()	Exam
viewResources()	Resource
attendClass()	Class
viewTrackRecord()	Exam, Class

Parent	
Method	Collaborator
viewTrackRecord()	Student

Teacher	
Methods	Collaborator
hostClass()	Class
uploadMaterials()	Resource
checkCopies()	Exam

Admin	
Methods	Collaborator
addUser()	Moderator,Student,Parent,Teacher
approveRequest()	Parent,Teacher
createRoutine()	Routine
deleteUser()	Moderator,Student,Parent,Teacher
editRoutine()	Routine
uploadMaterials()	Resource

Moderator

Methods	Collaborator
addUser()	Student,Parent, Teacher
approveRequest()	Parent, Teacher
createRoutine()	Routine
deleteUser()	Student,Parent, Teacher
editRoutine()	Routine
uploadMaterials()	Resource

Prospective Teacher	
Methods	Collaborator
apply()	

Class	
Method	Collaborator
takeAttendance()	Student

Exam	
Methods	Collaborator
saveExamCopies()	Student
viewExamCopies()	

Resource	
Methods	Collaborator
viewResources()	
editResource()	Admin,Moderator, Teacher.

Routine	
Method	Collaborator
viewRoutine()	

Contribution:

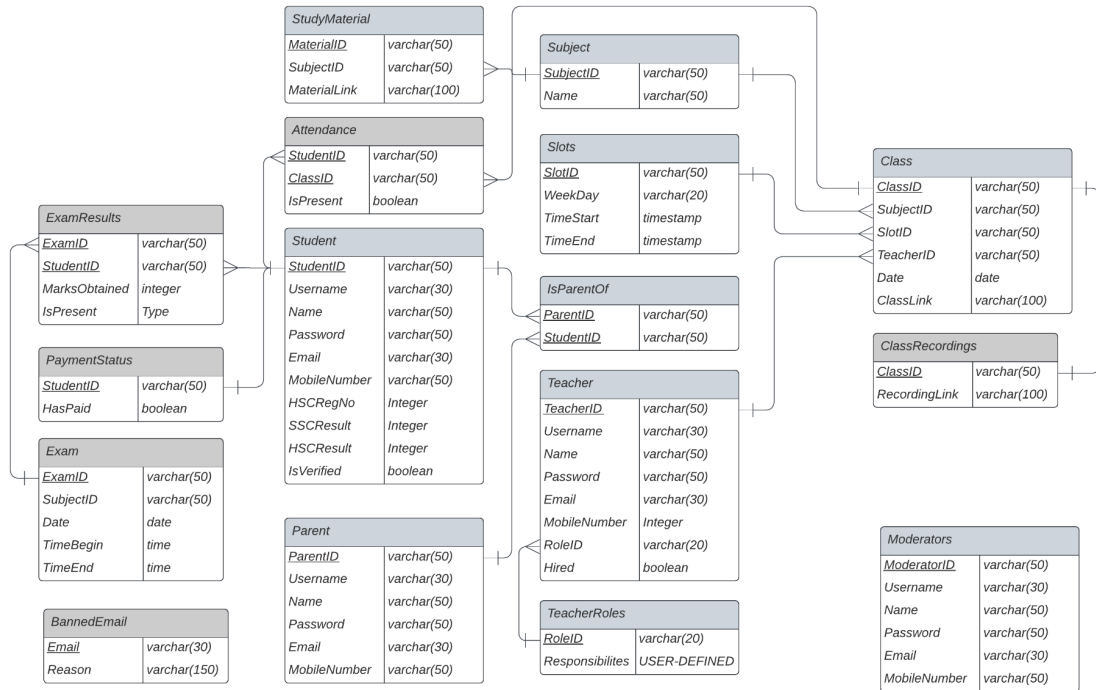
Ayesha Afroza Mohsin 200042106 -Potential Class Identification.

Abrar Mahmud Rahim 200042168-Method Identification,Class Card, CRC.

Nawsheen Mehemeen 200042134 - ERD:

SRS lab 5 erd

Nawsheen Mehreen 200042134 | March 5, 2023



Lucid chart erd link:

https://lucid.app/lucidchart/a6d4f65c-9dcd-43e2-9b74-9117ce13ecb0/edit?view_items=yRKqh-dGCGV0&invitationId=inv_299ff8c6-3a64-4e2a-ae62-2b8ec57ba2fd

