Use case: **Sign-up to the Website**

Iterations:	1,last modification: 3rd February by Ayesha Afroza Mohsin.
Primary actor:	Prospective User.
Goal in context:	To acknowledge that a user wants to be a member of our organization and to acquire their personal information to login later.
Preconditions:	No preconditions needed.
Trigger:	A Prospective user clicks open the Signup page.

Scenarios:

1. A Prospective User clicks on our Website's Home Page.
2. If someone is already logged in, the Prospective User clicks on the Log out button
3. The Prospective User clicks on the Sign up button.
4. The System loads the Role Selection Page, with 3 Options: Student, Parent, Teacher,
5. The Prospective User clicks on the Type of User they want to Register as.
6. The System loads the specific Sign up page for the User that was selected.
7. The Prospective User fills up the information as specified in the Sign up Page.
8. If the Prospective User wants to register as a Student - it will ask about which courses they want to register for along with their payment.
9. The user will be approved as a student after they have submitted verified proof of their payment.
10. If the Prospective User wants to register as a Parent - it will ask for the student id of the student(s).
11. The user will be approved as a parent for that student after the student verifies that account as their parent.
12. If the Prospective User wants to register as a teacher then it will ask for which teacher role it wants to apply for and the teacher's necessary credentials.
13. The user will be approved as a teacher after an admin or moderator approves and hires them.

Exceptions:

1. The Prospective User tried to access the Sign up page without Logging out first, Show 'You are already Logged in', see use case **Login to the Website.**
2. Information not valid or incomplete, display appropriate error message, don't allow Sign up to complete.

Priority	High Priority, other functions cannot operate without this.
When available:	1st increment
Frequency of use:	Low Frequency
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection
Secondary actors:	System

Channels to secondary actors:

1. System : PC or Mobile browser

Open issues:

1. How safe is it?
2. Will a prospective user's information be stolen?

Use case: **Login to the Website**

Iterations: 1,last modification: 3rd February by Ayesha Afroza Mohsin.

Primary actor: User

Goal in context: To allow specific users to access the specific information and functionalities available only to them.

Preconditions: The User needs to sign up previously and their Sign up request needs to be approved by an Admin or Moderator.

Trigger: A user clicks open the Login page.

Scenarios:

1. A User clicks on our Website's Home Page.
2. If someone is already logged in, the Prospective User clicks on the Log out button
3. The User clicks on the Login button.
4. The System loads the Role Selection Page, with 4 Options: Student, Parent, Teacher, Moderator
5. The User clicks on the Type of User they want to Login as.
6. The System loads the specific Login page for the User Type that was selected.
7. The User enters their email address and password to login.

Exceptions:

1. ID and passwords are incorrect or not recognized - show error message and ask to give the correct credentials.

Priority High Priority, other functions cannot operate without this.

When available: 1st increment

Frequency of use: Medium Frequency

Channel to actor: Via PC based Browser or Mobile Browser and internet connection

Secondary actors: System

Channels to secondary actors:

1. System : PC or Mobile browser

Open issues:

1. What if an attacker successfully logs in?

Use case: **Admins and Moderators can manually Create User Account**

Iterations:	1, last modification: 3rd February by Ayesha Afroza Mohsin.
Primary actor:	Admin/Moderator
Goal in context:	To create an account for Moderators or an account for any other normal user during any special circumstances.
Preconditions:	No Preconditions needed.
Trigger:	The Admin or a moderator clicks the Create User button.

Scenarios:

1. If someone else is already logged in, the Prospective User clicks on the Log out button.
2. The Website Admin is not logged in, they log in as the Admin with appropriate credentials.
3. The System loads the Create User's Role Selection Page, with 4 Options: Student, Parent, Teacher, Moderator.
4. The Admin clicks on the Type of User they want to create Credentials for.
5. The System loads the specific Sign up page for the User Type that was selected.
6. The Admin basic information about the specific user.
7. The Password for the new use is autogenerated and System sends the user (that was newly registered) their login credentials via mail, asking the user to change their password after first login.
8. The Admin can change the new User's information before the User logs in for the 1st time.

Exceptions:

1. Admin's ID and passwords are incorrect or not recognized - show error message.
2. The information inputted by the Admin is not valid or incomplete - display appropriate error message, don't allow Sign up to complete.
3. The email was not received by the newly registered user or the Link expired after a day - the admin can choose to resend the email or change the email address before resending.

Priority	Low Priority
When available:	4th increment
Frequency of use:	Very Low Frequency
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection
Secondary actors:	System

Channels to secondary actors:

1. System : PC or Mobile browser

Open issues:

1. Is this Violating a new User's information privacy

Use case: Students can attend class

Iterations:	1,last modification: 3rd February by Abrar Mahmud
Primary Actor:	Student
Goal in context:	To allow students to attend class hosted by the teacher.
Preconditions:	No Preconditions needed.
Trigger:	Students click the ‘Attend Class’ button in their profile dashboard.

Scenarios:

1. Student clicks the ‘Give Exam’ button in their profile dashboard.
2. System displays the scheduled classes routine.
3. If the student clicks on ‘Join class’ button system it will take him to the class,
4. System takes attendance of the student.
5. After the class,the system will show a message”Class has ended”.

Exceptions:

1.If there is no class on that day-show the time and date of the next class.

Priority:	High priority, to be implemented as a basic function.
When available:	First increment
Frequency of use:	High frequency
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection.
Secondary actor:	**System.**

Channels to secondary actors:

1.System:PC or Mobile Browser.

Open issues:

1.How to verify if the student is attending the class himself?

Use case: Students can give Exam

Iterations:	1,last modification: 3rd February by Abrar Mahmud
Primary Actor:	Student
Goal in context:	To allow students to give an exam hosted by the teacher.
Preconditions:	No Preconditions needed.
Trigger:	Student click the 'Give Exam' button in their profile dashboard.

Priority:	High priority, to be implemented as a basic function.
When available:	First increment
Frequency of use:	High frequency
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection.
Secondary actor:	**Teacher**

Scenarios:
1.Student clicks the 'Give Exam' button in their profile dashboard.
2. System displays the scheduled exams routine.
3.If the student clicks on the 'Give exam now' button, the system will start the exam.
4. A timer will be displayed during the exam.
5. After the exam,the system will show a message-"Exam has ended".

Exceptions:

1. If there is no class on that day, "Attend exam" will display the time and date of the next exam.

Channels to secondary actors:
1.System:PC or Mobile Browser.

Open issues:
1.How to verify if the student is giving the exam himself?
2.How to check if a student is taking help from other resources?

Use case: View Track Record

Iterations:	1,last modification: 3rd February by Abrar Mahmud.
Primary Actor:	Student
Goal in context:	To allow students and parents to view the previous results and attendance .
Preconditions:	No Preconditions needed.
Trigger:	Students/Parents clicks the ‘View Track Record’ button in their profile dashboard.

Scenarios:
1.Student clicks the ‘View Track Record’ button in their profile dashboard.
2. System displays the previous results and attendance information.
3. If the student clicks on ‘View detailed result‘ the system displays the graded exam copy.
4. The student can see the ranking for every exam.

Exceptions:
1. A student can report if there is any error in marking in the exam copy.
2.Student tries to view unchecked exam copy - show error message.

Priority:	High priority, to be implemented as a basic function.
When available:	First increment.
Frequency of use:	Medium frequency.
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection.
Secondary actor:	**System**

Channels to secondary actors:
1.System:PC or Mobile Browser.

Open issues:
1. Does the ranking reflect the student’s overall performance?

Use case: **Admin/Moderator will make routines**

Iterations:	1,last modification: 11th February by Nawsheen Mehereen
Primary actor:	Admin/Moderator
Goal in context:	Admin/Moderator creates and posts class and/or exam routines that will be viewed and used by the students and teachers. System will notify teachers and students about these routines.
Preconditions:	No preconditions needed.
Trigger:	The Admin/Moderator clicks the create routine button in their profile dashboard.

Scenarios:

1. The admin or any of the moderators click on the create routine button present in their profile's dashboard.
2. The admin or moderator uses the website's built-in table creator to create a routing and saves it.
3. The admin or moderator clicks on the post button present next to the save button in the table creator to post the routine.
4. The admin or moderator can right-click on one of the existing routines present in their dashboard and click on modify to modify that existing routine. A notification about this modification will be sent out to the teachers and students associated with that routine by the system.
5. The System sends out notifications to the teachers about the upcoming classes via their (the teachers') preferred mode(s) of receiving notifications.
6. The System sends out notifications to the students about the upcoming classes via their (the students') preferred mode(s) of receiving notifications.

Exceptions:

1. The same teacher has been allocated multiple classes at the same time slot. An error message prompting the admin/moderator to make changes will appear when the save button is clicked.
2. According to the routine created, a student has multiple classes/exams in the same time slot. An error message prompting the admin/moderator to make changes when the save button is clicked.

Priority	Medium Priority, classes/exams cannot be conducted without this.
When available:	1st increment
Frequency of use:	Low Frequency
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection
Secondary actors:	System, student and teacher.

Channels to secondary actors:

1. System : PC or Mobile browser

Open issues:

1. What will happen if a student or teacher requests for a change in time slot that other students agree with (other students/teachers agree with the existing time slot) ?

Use case: **Teachers can host online classes**

Iterations:	1,last modification: 11th February by Nawsheen Mehereen.
Primary actor:	Teachers.
Goal in context:	Teachers will host online classes via video conferences. Students will attend these classes. System will notify both parties about any upcoming classes or updates regarding them. System will also notify the students' parents if they've missed any classes.
Preconditions:	The video-conferencing, signin/signup interface(s) must be fully implemented.
Trigger:	The teacher takes a class according to the routine provided by the admin/moderator.

Scenarios:

1. The teacher hosts an online class according to the routines created and provided by the admin. The student(s) who have this class will attend the class.
2. The teacher logs in after receiving the notification about a class from the system.
3. The system notifies the student(s) about the class' starting.
4. The teacher logs in and clicks on the take class button.
5. The system presents the teacher with the video-conference interface.
6. The teacher mutes/unmutes their microphone while taking a class.
7. The teacher takes the students' attendance manually.
8. The system automatically takes the students' attendance and marks them as absent if a student does not join within a specified time.
9. The system sends a notification to the students' parents if they were marked absent for that class.
10. The system sends notifications to the associated teachers and students about a rescheduled class.
11. The system sends notifications to the associated teachers and students about a canceled class.

Exceptions:

1. The teacher tries to access the video-conferencing interface from a previous session when there is no class.
2. The student tries to access the video-conferencing interface from a previous session when there is no class.

Priority	High Priority, one of the main features of this website.
When available:	1st increment
Frequency of use:	High Frequency
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection
Secondary actors:	System, Students, Parents.

Channels to secondary actors:

1. System : PC or Mobile browser
2. Student: Email or SMS (as per their preference)
3. Parents: Email or SMS (as per their preference)

Open issues:

1. Are the students checking the notifications about the classes (to attend them)?
2. Are the teachers checking the notifications about the classes (to conduct them)?

Use case: **Teachers can upload study materials**

Iterations:	1,last modification: 11th February by Nawsheen Mehereen.
Primary actor:	Teachers
Goal in context:	Teachers can upload study materials such as notes, homework and solutions to past exams. Students will be able to view these. Admin/moderator holds the right(s) to upload/modify/delete any of these.
Preconditions:	Teachers and students must have signed up and be logged in to upload and view respectively. The signin/signup and notification system must be implemented.
Trigger:	A teacher clicks on the upload materials button in their dashboard under the corresponding class' tab. A student clicks on view material(s) in their dashboard for the corresponding class.

Scenarios:

1. A teacher logs in and goes to their profile to upload the materials. They click on the corresponding class' tab and click the upload materials button to upload the material. They choose the file from their PC's file system and click on upload. They click on the done button once they've uploaded all materials.
2. The system sends out a notification to the students who've registered for that class about the newly uploaded materials.
3. A student can now view the new materials from their profile by clicking on the respective class' tab and then clicking on the material they want to view.

Exceptions:

1. The teacher tries to upload a file without choosing any files from their PC's file system. An error message will appear telling the teacher that must select a file before in order to upload a material. The upload process will not be completed unless a file has been chosen and the operation will be aborted otherwise.

Priority	Low Priority, can be implemented later on after implementing main features.
When available:	2nd/3rd increment
Frequency of use:	High Frequency
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection
Secondary actors:	System, Students

Channels to secondary actors:

1. System : PC or Mobile browser
2. Students: PC or Mobile browser

Open issues:

1. Are the files being uploaded successfully i.e. not being corrupted in the process?

Use case: **Teacher can host exams**

Iterations: 1,last modification: 11th February by Abrar Mahmud.

Primary actor: Teacher

Goal in context: To allow teachers to host online exams.After the exam ,copies will be checked by the teachers.System will notify the students and parents about the result.

Preconditions: No preconditions needed.

Trigger: Teacher gets notification about the upcoming exam from the system and clicks on the “Create Question” button.

Scenarios:

1. The teacher gets a notification about the upcoming exam.
2. The teacher logs in and clicks on the “Create_Question” button.
3. A Teacher who has the role of “Question setter” can click the “Create_Question” button.
4. The system loads the built-in question manager.
5. The teacher selects the question type and creates the Question by manually giving input.
6. System will show-”Question Successfully Created” Message.
7. Students can give the exam at their scheduled time.

Exceptions:

1. The teacher clicks “Submit_Question” button before finishing the question -Show error message”You have to finish first”.
2. The teacher makes any mistake in any of the questions structure-Show error message and ask to check it again.

Priority High priority.

When available: 1st increment

Frequency of use: High Frequency

Channel to actor: Via PC based Browser or Mobile Browser and internet connection

Secondary actors: System

Channels to secondary actors:

1. System : PC or Mobile browser

Open issues:

1. Is the teacher making standard questions following the guideline provided?

Use case: **Teachers can grade copies that can be seen by Students and Parents**

Iterations:	2,last modification: 11th February by Ayesha Afroza Mohsin.
Primary actor:	Teacher.
Goal in context:	To allow Students and Parents to see the Students results and the mistakes they made.
Preconditions:	Students must have given the Exam.
Trigger:	Teacher clicks the 'Check submitted Scripts' button.

Scenarios:

1. A teacher who has the 'Copy Checker' Role can click the check-submitted-scripts button.
2. The System will then load the list of all the submitted copies from each assignment, homework or Exam.
3. If the Teacher clicks on the 'Start Checking' option on an assignment or Exam, it will load him the first script.
4. The teacher can jump from script to script and make annotations on it with red ink.
5. The teacher can assign marks to particular questions and the System will tally the marks.
6. The Teacher can publicize the results after they're done checking.
7. The System will notify the Students and their parents that their results are out.
8. A Student or their Parent can only see the ranking in that exam and their own exam script.

Exceptions:

1. The Teacher did not finish checking everyone's copies before trying to publicize the results - show error message and ask to enter marks for everyone.

Priority	Medium Priority
When available:	4th increment
Frequency of use:	Medium Frequency
Channel to actor:	Via PC based Browser or Mobile Browser and internet connection
Secondary actors:	System

Channels to secondary actors:

1. System : PC or Mobile browser

Open issues:

1. How accurate is the teacher's grading?
2. Can the teacher's answers be trusted?

Nawsheen Mehereen 200042134:	Detailed use cases for teachers hosting classes, uploading materials and add/moderator making routines and use case diagrams(Level 1.1,1.2,1.3,1.4,1.5),
Ayesha Afroza Mohsin 200042106:	Detailed use case for sign-up to the website,login to the website, manual account creation and teachers grading exams/copies and modifications to use case diagrams
Abrar Mahmud 200042168:	Detailed use case for attending class, giving exams, and viewing track records and teachers hosting exams and modifications to use case diagrams.
Everyone	Use case diagram modification.