Use Case: #1

Use Case ID:	CD01		
Use Case Name:	Manage account		
Created By:	Nitin	Last Updated By:	Nitin
Date Created:	24-03-2021	Date Last Updated:	03-06-2021
Actors:	Student, Teacher		
Description:	A user (student, teacher) can log in, register to their account, and update.		
Preconditions:	The user is already registered in the institution's database.		
Postconditions:	The user is redirected to the home page or the next page he requested.		

Normal Flow:	1.1 - Register
	  1.1.1 - Enter username (A-1)
	  1.1.2 - Enter email (A-1) (A-2)
	  1.1.3 - Enter a password
	  1.1.4 - Re-enter password (A-3)
	1.2 - Login
	  1.2.1 - Enter username
	  1.2.2 - Enter a password (A-4)
	1.3 - Update account
	  1.3.1 - Enter a new email (A-1)
	  1.3.2 - Upload a profile picture (A-5)
	1.4 - Forgot password
	  1.4.1 - Enter the email address (A-6)
	  1.4.2 - Click on the link (A-7)
	  1.4.3 - Enter a new password and confirm (A-3)		

Alternative Flows:	A-1 - If the field value is already taken, raise an error, "value is already taken". A-2 - If the email format is not matched, raise an error and redirect to the same page. A-3 - If the re-entered password does not match, raise an error. A-4 - If the username and password combination doesn't exist, raise an error. A-5 - If the file extension is not allowed, display an error message. A-6 - The email address is not associated with any account. Display an error message. A-7 - If the link is expired, display an invalid token error.		
Exceptions:	-		

Includes:	-
Priority:	Medium
Frequency of Use:	Frequently
Business Rules:	- The user's details are entered manually by the administrator into the database. - If a user has wants to have teacher privileges, they must contact the administrator.
Assumptions:	- An administrator enters the details of every user correctly and manually after verifying. - The system is installed for a particular school in an institution. So a user's institution, the school are not required.

Use Case: #2

Use Case ID:	CD02		
Use Case Name:	Create exam		
Created By:	Nitin	Last Updated By:	Nitin
Date Created:	24-03-2021	Date Last Updated:	11-06-2021
Actors:	Teacher		
Description:	The teacher creates an exam on a specific topic and schedules it. A security code protects the exam that the teacher creates and shares with the students just before the exam starts. In addition, the teacher uploads a question paper which is stored in the file system.		
Preconditions:	The teacher is already logged in.		
Postconditions:	The exam is created and scheduled.		
Normal Flow:	2.1 - Enter the topic (A-1) 2.2 - Enter the date and the time of the exam (A-2) 2.3 - Enter the duration of the exam (A-3) 2.4 - Enter exam code (A-4) 2.5 - Upload questions (A-5)		
Alternative Flows:	A-1 - If the topic is not entered, raise an error. A-1 - If the exam is created in the past (before the current time), display an error message. A-3 - If the duration is entered in a different metric, or not an integer, display an error message A-4 - If the length of the code is below 3 or above 6, show an error message. A-5 - If the file extension is not in the list of allowed extensions, display an error message.		
Exceptions:	The teacher sets the time on a different scale.		
Includes:	Login		
Priority:	High		
Frequency of Use:	Frequently		
Business Rules:	● The teacher uploads the correct format of questions.		
Assumptions:	● It is assumed that the teacher creates an exam for the course they are teaching and uploads the specified format.		

Use Case: #3

Use Case ID:	CD03
Use Case Name:	Join exam

Created By:	Nitin	Last Updated By:	Nitin
Date Created:	24-03-2021	Date Last Updated:	14-06-2021

Actors:	Student
Description:	The student attempts the exam by identifying himself with the system.
Preconditions:	The student is already logged in.
Postconditions:	The student can view the questions.
Normal Flow:	3.1 - Enter the exam code (A-1) (A-3) 3.2 - Capture the face image (A-2)
Alternative Flows:	A-1 - If the exam code is incorrect, show an error message. A-2 - If the face is not recognized/identified, display an error message and redirect to the same screen. A-3 - If the exam has not started or been completed, show appropriate messages.
Exceptions:	The student does not have a camera inbuilt into his system.
Includes:	Create exam
Priority:	High
Frequency of Use:	Frequently
Business Rules:	● The student attempts the exam he is allowed to attempt.
Assumptions:	● It is assumed that the student will upload his face image in the profile section.

Use Case: #4

Use Case ID:	CD02
Use Case Name:	Detect cheating

Created By:	Nitin	Last Updated By:	Nitin
Date Created:	24-03-2021	Date Last Updated:	20-06-2021

Actors:	-
Description:	The system detects any suspicious activity from the video frames while the student attempts the exam and stores them for further reference.
Preconditions:	The student has joined the exam.
Postconditions:	Suspected frames stored.
Normal Flow:	4.1 - Detect faces (A-1) (A-3) 4.2 - Detect eyes 4.3 - Detect objects (A-2) (A-3)
Alternative Flows:	A-1 - If the number of faces is greater than one give a warning sound. A-2 - If mobile phones or laptops are detected, show a warning. A-3 - If the number of warnings has crossed the limit, store the annotated frame for further reference.
Exceptions:	The camera is non-functional, or the resolution is too low to detect objects.
Includes:	Join Exam
Priority:	High
Frequency of Use:	Frequently
Business Rules:	● The student is equipped with the necessary hardware.
Assumptions:	● It is assumed that the student's surroundings are clean which are away from the frame.

Use Case: #5

Use Case ID:	CD02		
Use Case Name:	Manage results		
Created By:	Nitin	Last Updated By:	Nitin
Date Created:	25-06-2021	Date Last Updated:	29-06-2021
Actors:	Teacher		
Description:	The teacher assigns marks to students based on their responses and suspicious annotated frames (if any).		
Preconditions:	The user is already logged in.		
Postconditions:	The marks are updated.		
Normal Flow:	5.1 - Select the exam to correct 5.2 - Select the user to correct their responses 5.3 - Update marks (A-1)		
Alternative Flows:	A-1 - If the marks are out of the range show a warning message.		
Exceptions:	The user has left some questions unattempted.		
Includes:	Login		
Priority:	High		
Frequency of Use:	Frequently		
Business Rules:	● The teacher updates the marks in the correct pattern and within the marking range.		
Assumptions:	● It is assumed that the student attempts all the questions.		