USE CASES FOR PLAGIARISM DETECTION SYSTEM:

1. Use case for Registering of a new user:

Use case:	Register as a new user
Primary actor:	Instructors/ Teaching Assistants
Goal in context:	To create an account to access the plagiarism detection system.
Preconditions:	1. Authorized by admin to access the system 2. Received an email from admin with the username to create the account
Trigger:	The instructor/ teaching assistants need an account to get access to the plagiarism detector system to check for plagiarism of students.
Scenario:	1. Open the web-app of the plagiarism detector. 2. Go to "New User". 3. Enter the username given by admin. 4. Enter a valid password in the "Enter Password" and "Re-enter Password" field. 5. The instructor is redirected to the login page. 6. The instructor logs in with the new credentials created for the system.
Exceptions:	1. User enters a wrong username: An error message is displayed saying "Invalid Username" and the user is asked to re-enter the correct user name. 2. Password and Re-enter password don't match: An error is displayed saying "Password and Re-enter passwords don't match" and user has to enter the password again. 3. User forgets the username or deletes the email from admin in which he received the username: User sends an email to the admin requesting to resend the username.
Secondary actor:	Administrator
Issues:	None
Status:	Done

2. Use case for providing Access to Instructors:

Use case:	Providing access to Instructors for Plagiarism detection system
Primary actor:	Administrator
Goal in context:	To give access to Instructors/ Teaching assistants for using the Plagiarism detection system.
Pre conditions:	1. The teaching assistants nominated should be for the current semester.
Trigger:	The instructors/ teaching assistants want to gain access to the plagiarism detection system.
Scenario:	1. The instructor/ teaching assistants request the admin to provide access for the plagiarism detection system. 2. The administrator adds the users to the system by entering the instructor's name and husky mail id and generates a user name for the instructors. 3. The administrator sends a mail to the instructors and teaching assistants, the username and also provides instructions on how to log into the system as a new user.
Exceptions:	1. The mail with the username is not sent to the instructors because of a network error: The instructors can contact the administrator to resend the mail if not received. 2. The administrator has added wrong user to the system: The administrator has an option to delete the user, wherein he can delete the user and add the correct users to the system.
Issues:	No access is granted. Can gain access from registration
Status:	Pending

3. Use case for Login:

Use case:	Authentication
Primary actor:	Instructors/ Teaching Assistants
Goal in context:	To login to the plagiarism detector system using user name and password
Preconditions:	1. The instructors/ teaching assistants should have been added to the system by the administrator. 2. The instructors/ teaching assistants should have signed up already and have a username and password.
Trigger:	The instructor/ teaching assistants want to get access to the plagiarism detector system to check for plagiarism of students.
Scenario:	1. The system prompts to enter the user name and password. 2. The instructor enters the user name and password. 3. The instructor clicks the log in button. 4. Upon verification of correct credentials, the instructor is redirected to the plagiarism detector home page.
Exceptions:	1. The instructor enters a wrong user name or password: An error message is displayed and system returns to step 2. 2. The instructor enters the password wrong 5 times: An error message is shown that the user is blocked and to contact the administrator. The administrator will be able to help the instructors to reset their credentials 3. The instructor forgets the password or username: There is a Forgot User name/Password button in the login page which can be clicked which redirects to a page where the instructor will enter their Husky mail id. Further details of how to reset their credentials will be mailed to Husky mail id.
Secondary actor:	Administrator
Issues	None
Status	Done

4. Use case for Uploading code of student:

Use case:	Upload the student's code to check for plagiarism.
Primary actor:	Instructors/ Teaching assistants
Goal in context:	To upload the student's code that has to be checked for plagiarism.
Pre conditions:	1. The instructor/ teaching assistants have successfully logged into the plagiarism detector system. 2. The instructors/ teaching assistants have the correct link to git hub repository of the course.
Trigger:	The instructor wants to select a set of codes from Github to be run on plagiarism detector.
Scenario:	1. The instructor enters the git hub link in the Plagiarism detector system and Clicks Ok. 2. The list of repositories selected is displayed, wherein the instructor can select or remove any selected repositories if required.
Exceptions:	1. The instructor selects the wrong file: The instructor can click the Remove Selected button and reselect the correct file by entering the Git hub link.
Issues	None
Status	Done

5. Use case for running plagiarism detector:

Use case:	Run plagiarism detector.
Primary actor:	Instructors/ Teaching Assistants
Goal in context:	Run the plagiarism detector on students' submission files after they are downloaded from Git to the system
Preconditions:	1. The instructors/ Teaching assistants should have been logged into the system. 2. The instructors/ Teaching assistants have entered the correct Github link to the course repository.
Trigger:	The instructors want to run plagiarism detector on selected repositories of students.
Scenario:	1. After the Github link is provided, the set of all repositories available are listed. 2. The instructor can select all the repositories or can use the filter option to select the required repository (e.g.: hmk1 or hmk2). 3. Once the instructor selects the list of repositories, the run plagiarism detector button is clicked to start the plagiarism detection system. 4. A screen pops up showing the progress of running the plagiarism detector wherein the instructor can cancel the process if he wishes to.
Exceptions:	1. No files are uploaded to the system and hence the "Run Detector" button is disabled: The Instructor/Teaching Assistants must select the repositories and click "Run Plagiarism Detector" button.
Issues	None
Status	Done

6. Use case for Report Overview:

Use case:	Plagiarism report overview.
Primary actor:	Instructors/Teaching Assistants
Goal in context:	The instructor/ teaching assistants want to get an overview of the plagiarism content in the submission of assignments.
Preconditions:	1. The instructors/ teaching assistants should have been logged into the system. 2. The instructors/teaching assistants have selected the repositories on which plagiarism detector is to be run.
Trigger:	The instructors suspect the student's submission for plagiarism.
Scenario:	1. The instructor clicks the "Run Plagiarism detector" button. The plagiarism detector is triggered to detect any plagiarised content in the submissions. 2. A new page which is a Report Overview page is displayed. It consists of three sections, coloured as Red, Orange and Green which gives them an overview of the plagiarised contents in the submission. 3. The files which have highest content of plagiarism are displayed in the Red section, moderate plagiarism content files are placed in the Orange and low or no plagiarism content are placed in the Green section. 4. The bottom of this page has "View Detailed Report" button.
Exceptions:	1. The instructor/teaching Assistants do not find any files on the dashboard page: No code files are detected by the plagiarism detector. They will have to feed the system with correct submission repository and "Run Detector" again
Issues	None
Status	Done

7. **Use case for View Detailed Plagiarism Report:**

Use case:	View Detailed Plagiarism Report
Primary actor:	Instructors/ Teaching Assistants
Goal in context:	View the code files of a student pair whose assignments have plagiarised content and view a detailed report with line match.
Preconditions:	1. The instructors/ teaching assistants should have been logged into the system. 2. The instructors/teaching assistants have fed the assignments to the system 3. The instructors/teaching assistants have run the plagiarism detector.
Trigger:	The instructor/ teaching assistants want to know the list of students with plagiarised content.
Scenario:	**1.** The instructor clicks the "View Detailed Report", and is redirected to a "View Reports" page. **2.** The instructors can view student pair which is grouped together since they have matching content in their submission files. **3.** These pairs are ordered from the highest plagiarism content to lowest plagiarism content. **4.** There is a "View Report" against each pair. **5.** On clicking "View Report", the instructor/ teaching assistants can view a partitioned screen, with one student's code on the left and another student's code on the right. **6.** The matched lines of code are highlighted so that the instructor/teaching assistants can distinctly identify the lines from a long piece of code. **7.** The bottom of the screen will display a dashboard of the analysis done by the detector. The analysis includes range of percentages, pie charts, and stack trace of the matching codes.
Exceptions:	1. The instructor/teaching assistants did not select the correct student pair to select so that they can view a report: They can go back to the previous page and select the correct student pair.
Issues	None
Status	Done

8. Use case for downloading plagiarism reports:

Use case:	Retrieve plagiarism report as pdf file.
Primary actor:	Instructors/ Teaching assistants
Goal in context:	To get the reports after running plagiarism detector as a pdf file so that it can be sent over the mail or downloaded for reference.
Pre conditions:	1. The instructors/ teaching assistants should have successfully logged into the plagiarism detector system. 2. The instructors/ teaching assistants should have already run plagiarism detector on the student whose report he is expecting as pdf file.
Trigger:	Instructor wants to send the plagiarism report to other committee for further processing or download and keep it for future reference.
Scenario:	1. User logs in to the system and is on the homepage. 2. User clicks on "View reports" to view all the plagiarism reports that have been generated. 3. User the selects the student pair for whom he wants to generate the report for and clicks "View report". 4. While viewing the report, user clicks on "Export as pdf file". 5. After the pdf has been generated, user has an option either to download the pdf or share it as an email attachment.
Exceptions:	1. If the report is not properly generated as a pdf file: Try to generate the pdf of the report again and if the error persists, contact administrator.
Issues	Did not implement
Status	Pending

9. Use case to delete entire submissions or each pair of reports:

Use case:	Delete existing reports from the system
Primary actor:	Instructors/ Teaching assistants
Goal in context:	To delete the reports generated for an entire submission or a particular report generated for a pair.
Pre conditions:	1. The instructor/ teaching assistants have successfully logged into the plagiarism detector system. 2. The instructors/ teaching assistants have already run the plagiarism detector and generated reports that they want to delete.
Trigger:	Instructor wants to delete outdated or past reports generated.
Scenario:	1. The user logs in to the system and goes to the home page. 2. User clicks on "View Reports" to view all the existing records in the system. 3. The reports are displayed based on timestamp. 4. User can either select an entire submission of a particular timestamp or an individual pair that needs to be deleted. 5. User then clicks "Delete Report" to delete the selected report or submission. 6. User repeats step 3 and 4 for all the records/submissions to be deleted.
Exceptions:	1. The record deleted still persists in the system after getting deleted: Try to delete once again (in case of network glitch) and if the error persists, contact administrator.
Issues	None
Status	Done

10. Use case to edit user profile:

Use case:	Edit user profile
Primary actor:	Instructors/ Teaching assistants
Goal in context:	Instructor wants to make changes to their personal information on the system.
Pre conditions:	1. The instructors/ teaching assistants should have successfully logged into the plagiarism detection system.
Trigger:	User wants to change their password or update their mail id.
Scenario:	1. User logs in to the system and is redirected to homepage 2. User goes to the 'User Profile' page and checks if the system already contains the updated data. 3. The user clicks on Edit profile button. 4. The user can edit the changes that he needs to make (eg: update the primary email) 5. After editing click Save to save the new information. 6. Instructors confirm the updated changes. 7. The user logs out of the system if no more changes are to be made.
Exceptions:	1. If the user is not able to edit the personal information: Log out of the existing system. Close the browser and open a new instance of the browser and try to edit, if error persists contact administrator.
Issues	Did not implement
Status	Pending