



CodeX Plagiarism Detection System - Use cases

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Use Cases

Use Case 1

Use Case	Register a new user
Primary Actor	User
Goal in Context	To register a user in the system.
Preconditions	<ul style="list-style-type: none">• System must be fully configured.• User must be a new user and should have never been registered with the system.
Trigger	<ul style="list-style-type: none">• Professor decides to access plagiarism detection system.
Scenario	<ul style="list-style-type: none">• The user must navigate to the CodeX website.• The user must click on Register new user button.• The system displays specified fields to be filled by the user.• First name, last name, email, username, password, verify password are mandatory fields.• User must select at most one user type out of Admin, Professor, Student.• User should click on register button.
Exceptions	<ul style="list-style-type: none">• Username must be unique. If username already exists user would be prompted to enter a new username.• Min length of the password should be at least 5 characters.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 1
Frequency	<ul style="list-style-type: none">• Frequent



Use Case 2

Use Case	Login existing user
Primary Actor	User
Goal in Context	Login an existing user in the system.
Preconditions	<ul style="list-style-type: none">• System must be fully configured.• User must be already registered in the system.• Appropriate user name and password must be obtained.
Trigger	<ul style="list-style-type: none">• Professor decides to look inside files for detecting plagiarism.• Student decides to upload assignments.• Admin decides to perform approval of another admin and professor users.
Scenario	<ul style="list-style-type: none">• The user must navigate to CodeX website.• The user must enter appropriate username in the specified field.• The user must enter appropriate password in the specified field.• User must click on Login button.• The system navigates to the user's dashboard page where the system displays all the major functions based on user type (Professor/Student/Admin).
Exceptions	<ul style="list-style-type: none">• Usernames or passwords are incorrect or not recognized.• Unregistered user tries to login and the system is not able to recognize the username.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 1
Frequency	<ul style="list-style-type: none">• Frequent



Use Case 3

Use Case	Uploading assignment python files or folder
Primary Actor	Student
Goal in Context	Student must upload python files(or folder containing multiple python files) of particular homework
Preconditions	<ul style="list-style-type: none">• System must be fully configured.• User must be of type student.• Student must be logged into the system.• Student must be enrolled to at least one course and that course must have at least one homework associated with it.
Trigger	<ul style="list-style-type: none">• The student decides to upload the assignment python files/folders for submission.
Scenario	<ul style="list-style-type: none">• The student must click on upload button.• Student must navigate to the folder where the file is located and click on ok button in the pop up window.• Student must click on upload button.• File will start uploading.• Student must wait patiently and let files upload complete.• Once all the files are uploaded ,student must click on the submit button.
Exceptions	<ul style="list-style-type: none">• User tries to upload a file without selecting any file.• Uploaded files are not in python language.• User tries to upload same homework submission twice.
Priority	<ul style="list-style-type: none">• High
Implemented In	<ul style="list-style-type: none">• Sprint 2
Frequency of Use	<ul style="list-style-type: none">• Frequent



Use Case 4

Use Case	Review Plagiarism Summary
Primary Actor	Professor
Goal in Context	To detect plagiarism for student submissions.
Preconditions	<ul style="list-style-type: none">• System must be fully configured.• User must be Professor.• Professor must be logged into the system.• Professor must navigate to the home page.• Students must have submitted the assignment.
Trigger	<ul style="list-style-type: none">• Professor decides to see plagiarism summary for all students who have submitted homework for particular course homework.
Scenario	<ul style="list-style-type: none">• System displays the assignment submitted by all the students.• System shows the check plagiarism button next to each submission.• Professor must select one of plagiarism detection strategy using radio button and click on check plagiarism button for the student he wishes to check plagiarism for.
Exceptions	<ul style="list-style-type: none">• Only one submission has been made. The system would generate an error message as there are no files to compare with.
Priority	<ul style="list-style-type: none">• High
Implemented In	<ul style="list-style-type: none">• Sprint 3
Frequency	<ul style="list-style-type: none">• Frequent



Use Case 5

Use Case	Generate Plagiarism Detailed Report
Primary Actor	Professor
Goal in Context	To generate detected plagiarism report.
Preconditions	<ul style="list-style-type: none">• User must be a Professor.• Professor must be on plagiarism report summary page.
Trigger	<ul style="list-style-type: none">• When professor decides to view the plagiarised code for a student with another student.
Scenario	<ul style="list-style-type: none">• The system displays the plagiarism summary of a student for a file with all the other students' submissions.• A 'Detailed Report' button is displayed next to each student.• Professor must click on the 'Detailed Report' button.• System displays the line wise detailed report for two files.
Exceptions	<ul style="list-style-type: none">• Only one submission has been made. The system would not navigate to the report page if only one student has submitted homework.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 3
Frequency	<ul style="list-style-type: none">• Infrequent



Use Case 6

Use Case	Logout user
Primary Actor	Professor/Student/Admin
Goal in Context	Logout logged in user from the system.
Preconditions	<ul style="list-style-type: none">• System must be fully configured.• User must be already logged in the system.
Trigger	<ul style="list-style-type: none">• The user decides to log out from the system.
Scenario	<ul style="list-style-type: none">• The user must click on Log out button.
Exceptions	<ul style="list-style-type: none">• Professor tries to log out from the system while plagiarism report being generated.• Student tries to log out while uploading assignment.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 1
Frequency	<ul style="list-style-type: none">• Frequent



Use Case 7

Use Case	Approving Admin and Professor access request
Primary Actor	Admin
Goal in Context	To approve professor and admin system access request
Preconditions	<ul style="list-style-type: none">• User should be able to login to the system as an Admin.
Trigger	<ul style="list-style-type: none">• Admin accepts the request of admin and professor users to access system as admin and professor respectively.
Scenario	<ul style="list-style-type: none">• System displays the detailed list of all the unapproved professors and admin users.• Admin selects the user whose system access request needs to be approved.
Exceptions	<ul style="list-style-type: none">• First admin user must be approved by setting approve flag in database.
Priority	<ul style="list-style-type: none">• Low
Implemented In	<ul style="list-style-type: none">• Sprint 3
Frequency	<ul style="list-style-type: none">• Infrequent



Use Case 8

Use Case	Plagiarism execution statistics summary report generation
Primary Actor	Admin
Goal in Context	To generate plagiarism detection execution statistics summary report.
Preconditions	<ul style="list-style-type: none">• User must be able to login to the system as an Admin.
Trigger	<ul style="list-style-type: none">• Admin user wants to generate plagiarism execution statistics summary report
Scenario	<ul style="list-style-type: none">• The system displays the plagiarism execution statistics summary of all plagiarism detection runs executed by all professors
Exceptions	<ul style="list-style-type: none">• Admin tries to generate plagiarism execution statistics summary report when plagiarism detection has not executed even once.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 3
Frequency	<ul style="list-style-type: none">• Infrequent



Use Case 9

Use Case	Plagiarism execution statistics summary report generation
Primary Actor	Professor
Goal in Context	To generate plagiarism detection execution statistics summary report.
Preconditions	<ul style="list-style-type: none">• User must be able to login to the system as an Professor.
Trigger	<ul style="list-style-type: none">• Professor wants to generate plagiarism execution statistics summary report of all the plagiarism detection runs executed by him.
Scenario	<ul style="list-style-type: none">• The system displays the plagiarism execution statistics summary of all plagiarism detection runs executed by current professor.
Exceptions	<ul style="list-style-type: none">• Professor tries to generate plagiarism execution statistics summary report when plagiarism detection has not executed even once.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 3
Frequency	<ul style="list-style-type: none">• Infrequent



Use Case 10

Use Case	System configuration statistics summary report generation
Primary Actor	Admin
Goal in Context	To generate system configuration statistics summary report.
Preconditions	<ul style="list-style-type: none">• User must be able to login to the system as an Admin.
Trigger	<ul style="list-style-type: none">• Admin user wants to generate System configuration statistics report
Scenario	<ul style="list-style-type: none">• The system displays system configuration statistics summary of all plagiarism detection runs executed by all professors
Exceptions	<ul style="list-style-type: none">• Admin tries to generate system configuration execution statistics summary report when system root variable permission is not set
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 3
Frequency	<ul style="list-style-type: none">• Infrequent



Use Case 11

Use Case	Creating new course
Primary Actor	Professor
Goal in Context	To create new courses to which homework are assigned
Preconditions	<ul style="list-style-type: none">• User must be able to login to the system as an Professor.
Trigger	<ul style="list-style-type: none">• Professor wants to add new course into system.
Scenario	<ul style="list-style-type: none">• The system displays '+' button to add new course into system by providing course name and course description.
Exceptions	<ul style="list-style-type: none">• Professor tries to create course with same name multiple times.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 2
Frequency	<ul style="list-style-type: none">• Infrequent



Use Case 12

Use Case	Enrol to new course
Primary Actor	Student
Goal in Context	To allow Student to enrol for particular course
Preconditions	<ul style="list-style-type: none">• User must be able to login to the system as an Student.
Trigger	<ul style="list-style-type: none">• Student wants to enrol particular course which are created by Professor
Scenario	<ul style="list-style-type: none">• The system shows all the courses created by all professors. These are the only courses available to student for enrolments.• The system displays '+' button on enrolment page which when pressed, provides available course for given student.
Exceptions	<ul style="list-style-type: none">• Student tries to enrol when no courses added into system by professor.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 2
Frequency	<ul style="list-style-type: none">• Frequent



Use Case 13

Use Case	Creating new homework
Primary Actor	Professor
Goal in Context	To create new homework assigned to particular course.
Preconditions	<ul style="list-style-type: none">• User must be able to login to the system as an Professor.
Trigger	<ul style="list-style-type: none">• Professor wants to add new homework to particular course.
Scenario	<ul style="list-style-type: none">• The system shows all the courses created by particular professor. These are the only courses for which the professor can create new homeworks.• The system displays '+' button to add new homework into system by providing homework name and homework description.
Exceptions	<ul style="list-style-type: none">• Professor tries to create homework with same name multiple times for same course.
Priority	<ul style="list-style-type: none">• Moderate
Implemented In	<ul style="list-style-type: none">• Sprint 2
Frequency	<ul style="list-style-type: none">• Infrequent



Use Case 14

Use Case	View and Update profile information
Primary Actor	User
Goal in Context	To allow all registered user to view and update First name, Last name, Email, Password
Preconditions	<ul style="list-style-type: none">• User must be able to login to the system using valid Username and Password
Trigger	<ul style="list-style-type: none">• User wants to view and update First name, Last Name, Email and password.
Scenario	<ul style="list-style-type: none">• The system shows User Name, First Name, Last Name, Email and Password of the user who has logged into system using valid username and password.• User is not allowed to modify Username.
Exceptions	<ul style="list-style-type: none">• User tries to go on login page using invalid login credentials or using profile page URL
Priority	<ul style="list-style-type: none">• Low
Implemented In	<ul style="list-style-type: none">• Sprint 2
Frequency	<ul style="list-style-type: none">• Infrequent