# Student management ‘s Use case

1. Use case list:

|  |  |  |
| --- | --- | --- |
| **ID** | **Use Case** | **Primary Actors** |
| 1 | Login to home screen | Student, teacher, admin |
| 2 | Logout from applications | Student, teacher, admin |
| 3 | Register new account | Student |
| 4 | View personal ‘s score report | Student |
| 5 | Register for classrooms | Student |
| 6 | View classroom ‘s information | Student, teacher, admin |
| 7 | View subject ‘s information | Student, teacher |
| 8 | Edit personal ‘s information | Student, teacher |
| 9 | Add new student to classroom | Head Teacher |
| 10 | Remove student from classroom | Head Teacher |
| 11 | View class ‘s score report | Head Teacher |
| 12 | View student ‘s score list | Teacher |
| 13 | Add new score to student ‘s score list | Teacher |
| 14 | Remove score from student ‘s score list | Teacher |
| 15 | View Score report of a subject | Teacher |
| 16 | Assign teacher to a classroom | Super Admin |
| 17 | Register a new teacher account | Super Admin |
| 18 | Create new classroom | Super Admin |
| 19 | View list of classrooms | Super Admin |
| 20 | Update classroom's information | Super Admin |
| 21 | Remove classroom | Super Admin |
| 22 | Add new subject | Super Admin |
| 23 | View subject list | Super Admin |
| 24 | Update subject's information | Super Admin |
| 25 | Remove subject form subject list | Super Admin |
| 26 | Add new teacher | Super Admin |
| 27 | View teacher list | Super Admin |
| 28 | Update teacher’s information | Super Admin |
| 29 | Disable account | Super Admin |
| 30 | View list account | Super Admin |
| 31 | Update account | Super Admin |
| 32 | Update score in student ‘s score list | Teacher |
| 32 | Show list of students in classrooms | Teacher |

1. Use Case Details:
2. Login

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC01 – Login to home screen | | |
| Created By: | Duc Tu | Date Created: | 21/09/2022 |
| Primary Actor | User (Teacher, student, super admin) | | |
| Description: | User of the application can login to home screen | | |
| Preconditions: | User have registered for an account | | |
| Post-conditions: | User successfully get access to home screen | | |
| Normal Flow: | 1. User enter username and password 2. Redirect to home screen of student management application after login successfully | | |
| Alternative Flows: | None | | |
| Exceptions: | 1.0.E1: User enter wrong password or username  - Display an error message and require user to enter his account again  1.0.E2: User account does not exist:  - Require user to register for new account  1.0.E3: SQLExceptions  1.0.E4: NullPointerExeptions | | |

1. Logout

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC02 – Logout from application | | |
| Created By: | Duc Tu | Date Created: | 21/09/2022 |
| Primary Actor | User (Teacher, student, super admin) | | |
| Description: | User can log out from the application | | |
| Preconditions: | * User login successfully to the application | | |
| Post-conditions: | * Remove user account from session | | |
| Normal Flow: | 1. User logout from the application 2. Redirect to login screen | | |
| Alternative Flows: | None | | |
| Exceptions: | None | | |

1. Register new account

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC03 – Register new student account | | |
| Created By: | Duc Tu | Date Created: | 21/02/2002 |
| Primary Actor | Student | | |
| Description: | Student can register for new account with their student code | | |
| Preconditions: | The student code has not been registered for an account before | | |
| Post-conditions: | New account successfully added to database | | |
| Normal Flow: | 1. The Student want to register for a new account 2. Student enter his student code in the username space and other information like password, age… in the form 3. Student submit form and system displays message ‘register successfully’ | | |
| Alternative Flows: | None | | |
| Exceptions: | 3.0.E1: account already existed  - The student code has been registered for an account before. The system displays message “account already existed”  3.0.E2: SQLExceptions  3.0.E3: NullPointerExeptions | | |

1. View personal ‘s mark report

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC04 – View personal ‘s mark report | | |
| Created By: | Duc Tu | Date Created: | 21/09/2022 |
| Primary Actor | Student | | |
| Description: | Student can view his mark ‘s report of the class he participates in | | |
| Preconditions: | * Login as an student | | |
| Post-conditions: | None. | | |
| Normal Flow: | 1. Student go to mark ‘s report page. 2. Display mark ‘s report: list of subjects and score ‘s weight | | |
| Alternative Flows: | None | | |
| Exceptions: | None | | |

1. Register for classroom

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC05 – Register for a classroom | | |
| Created By: | Duc Tu | Date Created: | 21/02/2022 |
| Primary Actor | Student | | |
| Description: | Student can register for a classroom | | |
| Preconditions: | * Login as a student * Student has not registered in any class * The class does not full of students | | |
| Post-conditions: | * Add new records in student\_classroom table * Update number of current student in classroom table | | |
| Normal Flow: | 1. Student want to register for a classroom 2. Choose a classroom from the list of classroom 3. Register for the classroom 4. Display registered successfully message | | |
| Alternative Flows: |  | | |
| Exceptions: | 5.0.E1: Student already in another classroom  - Display message “You have already been in another classroom”  5.0.E2: The classroom is already full of student  - Display message “This classroom is already full” | | |

1. View information of classroom

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC06 – View information of classroom | | |
| Created By: | Duc Tu | Date Created: | 21/02/2022 |
| Primary Actor | Student, Teacher | | |
| Description: | User can view the information of the classroom including: head teacher; number of student; list of subject… | | |
| Preconditions: | Log in successfully | | |
| Post-conditions: |  | | |
| Normal Flow: | 1. User choose a classroom from the list of classroom 2. System display information of the class | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

1. View information of the subject

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC07 – View information of the subject | | |
| Created By: | Duc Tu | Date Created: | 21/09/2022 |
| Primary Actor | Student, teacher | | |
| Description: | Student, teacher can view the information of the subject including teacher, mark ‘s portion…. | | |
| Preconditions: | Log in as a student, teacher | | |
| Post-conditions: | None | | |
| Normal Flow: | 1. Continue with UC06  2. User want to view the information of the subject  3.System display information of the subject | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

1. Edit personal ‘s information

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC08 – Edit personal ‘s information | | |
| Created By: | Duc Tu | Date Created: | 21/09/2022 |
| Primary Actor | Student, teacher | | |
| Description: | Student and teacher can change their personal information like name, date of birth, … | | |
| Preconditions: | Login as an student or teacher | | |
| Post-conditions: | New data update in the database | | |
| Normal Flow: | 1. User choose to edit his personal information 2. Display form and current information 3. User edit their information 4. User submit form and system display message update successfully | | |
| Alternative Flows: |  | | |
| Exceptions: | 8.0.E1: SQLExceptions  8.0.E2: NullPointerExeptions | | |

1. Add new student to classroom

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC09 – Add new student to classroom | | |
| Created By: | Duc Tu | Date Created: | 21/9/2002 |
| Primary Actor | Head teacher | | |
| Description: | Head teacher of the classroom can add new student to their class. | | |
| Preconditions: | Log in as a teacher   * Must be the head teacher of the class * The class can not full of student | | |
| Post-conditions: | * New records added in student-classroom table * Update number of student in class | | |
| Normal Flow: | 1. Teacher choose to add new student to their class 2. Teacher select students to add. 3. Teacher confirm his actions 4. System display message “Added successfully” | | |
| Alternative Flows: |  | | |
| Exceptions: | 9.0.E1: Teacher add over number of student  - Fail to add new student and system dislay message “Number of student add is too many” | | |

1. Remove student from classroom

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC10 – Remove student from classroom | | |
| Created By: | Duc Tu | Date Created: | 21/09/2022 |
| Primary Actor | Head teacher | | |
| Description: | Head teacher can remove student from their class | | |
| Preconditions: | * Log in as a student * Teacher must be the head teacher of the class | | |
| Post-conditions: | * Remove record from student-classroom table * Update number of student in class | | |
| Normal Flow: | * Continue UC06 * The teacher select student to remove from class * The teacher confirm his action * System display message: “Remove student successfully” | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

1. View class score report

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC11 – View class score report | | |
| Created By: | Duc Tu | Date Created: | 21/09/2022 |
| Primary Actor | Teacher | | |
| Description: | The head teacher can view his class score ‘s report | | |
| Preconditions: | * Login as a teacher   The teacher is the head teacher of the class | | |
| Post-conditions: |  | | |
| Normal Flow: | 1. Continue UC06 2. The teacher choose to view score ‘s report 3. Display score ‘s report including highest/lowest score ; ABCD score | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

1. View student ‘s score list

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC12 – View student ‘s score list | | |
| Created By: | Duc Tu | Date Created: | 21/09/2022 |
| Primary Actor | Teacher | | |
| Description: | Teacher can view the score of the student in the subject he teaches. | | |
| Preconditions: | * Login as a teacher | | |
| Post-conditions: |  | | |
| Normal Flow: | * Continue UC07 * The teacher choose to view score ‘s list. * Display the score’s list | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

1. Add new score to student ‘s score list

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC03 – Add new score to student ‘s score list | | |
| Created By: | Duc Tu | Date Created: | 22/09/2022 |
| Primary Actor | Teacher | | |
| Description: | Teacher of the subject can add new score to the student ‘s score list | | |
| Preconditions: | * Log in as the teacher of the subject | | |
| Post-conditions: | * New score is added to the database | | |
| Normal Flow: |  | | |
| Alternative Flows: | 1. Continue with UC12 2. The teacher select places to add scores 3. The teacher confirm action 4. The system displays message “add score successfully” | | |
| Exceptions: | 13.0.E1: NullPointerExceptions  13.0.E2: NumberFormatExceptions | | |

1. Remove score from student ‘s score list

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC14 – Remove score from student ‘s score list | | |
| Created By: | Duc Tu | Date Created: | 22/09/2022 |
| Primary Actor | Teacher | | |
| Description: | The teacher of the subject can remove score from student ‘s score list | | |
| Preconditions: | * Log in as the teacher of the subject | | |
| Post-conditions: | * Score is removed from database | | |
| Normal Flow: | * Continue with UC12 * The teacher select score to remove * The teacher confirm action * The system display message “Remove successfully” | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

1. View score report of a subject

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC15 – View score report of a subject | | |
| Created By: | Duc Tu | Date Created: | 22/09/2022 |
| Primary Actor | Teacher | | |
| Description: | The teacher can view score report of a subject | | |
| Preconditions: | Log in as a teacher | | |
| Post-conditions: |  | | |
| Normal Flow: | * Continue with UC07 * The teacher selects to view score report * Display mark report. | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

16 Assign teacher to a classroom

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Assign teacher to a classroom | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to assign teacher to teach or to be the head teacher of a class | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A new record is added to table teacher – classroom in database | | |
| Normal Flow: | 1. Admin view teacher list 2. Click assign button 3. Choose a class in a list 4. Click save 5. Teacher is successfully assigned | | |
| Alternative Flows: | 1. Admin view teacher list 2. Click assign button 3. Choose a class in a list 4. Click save 5. Teacher is already assigned to that class, return error message | | |
| Exceptions: | SQLException | | |

17 Register a new teacher account

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Register a new teacher account | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to register a new teacher account | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A new record is added to table teacher in database | | |
| Normal Flow: | 1. Admin click add new teacher account in dashboard  2. Input teacher code, password, role  3. Click save  4. Teacher account is successfully added | | |
| Alternative Flows: | 1. Admin click add new teacher account in dashboard  2. Input teacher code, password, role  3. Click save  4. Teacher code is not found or already has an account  4. Show register form again and return error message | | |
| Exceptions: | SQLException, SQLIntegrityConstraintViolationException | | |

18 Create new classroom

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Create a new classroom | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to create a new classroom | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A new classroom is successfully added to database | | |
| Normal Flow: | 1. Admin click add new classroom in dashboard  2. Input classname, number of students  3. Click save  4. Classroom is successfully added | | |
| Alternative Flows: | 1. Admin click add new classroom in dashboard  2. Input class name, number of students  3. Click save  4. Class name is already used  5. Return error message | | |
| Exceptions: | SQLException | | |

19 View list of classrooms

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | View list classroom | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to view list of all classroom | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A list of all classroom is displayed | | |
| Normal Flow: | 1. Admin click view list classroom in dashboard  2. Display classroom list | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

20 Update classroom's information

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Update classroom’s information | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to edit information a classroom | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A classroom is successfully updated database | | |
| Normal Flow: | 1. Admin click view list classroom in dashboard  2. Click Update button  3. Fill update form  4. Classroom is successfully updated | | |
| Alternative Flows: | 1. Admin click view list classroom in dashboard  2. Click Update button  3. Fill update form  4. Classroom name is already used  5. Return update form again with error message, back to step 3 | | |
| Exceptions: | SQLException | | |

21 Remove classroom

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Remove new classroom | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to delete a classroom | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A classroom is successfully deleted from database | | |
| Normal Flow: | 1. Admin click view list classroom in dashboard  2. Click Delete button  3. Confirm delete  4. Classroom is successfully deleted | | |
| Alternative Flows: |  | | |
| Exceptions: | SQLException | | |

22 Add new subject

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Add a new subject | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to add a new subject | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A new subject is successfully added to database | | |
| Normal Flow: | 1. Admin click add new subject in dashboard  2. Input subject name, number of credits  3. Click Save  4. Subject is successfully added | | |
| Alternative Flows: | 1. Admin click add new subject in dashboard  2. Input subject name, number of credits in a form  3. Click Save  4. Subject name is already used  5. Show form again, display error message, back to step 2 | | |
| Exceptions: | SQLException | | |

23 View subject list

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | View subject list | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to view list of all subject | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A list of all subject is displayed | | |
| Normal Flow: | 1. Admin click view list classroom in dashboard  2. Display classroom list | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

24 Update subject's information

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Update classroom‘s information | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to edit information a classroom | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A classroom is successfully updated database | | |
| Normal Flow: | 1. Admin click view list classroom in dashboard  2. Click Update button  3. Fill update form  4. Classroom is successfully updated | | |
| Alternative Flows: | 1. Admin click view list classroom in dashboard  2. Click Update button  3. Fill update form  4. Classroom name is already used  5. Return update form again with error message, back to step 3 | | |
| Exceptions: | SQLException | | |

25 Remove subject form subject list

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Remove a subject from subject list | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to remove a subject | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A subject is successfully removed | | |
| Normal Flow: | 1. Admin click view list subject in dashboard  2. Click Delete button  3. Confirm delete  4. Subject is successfully deleted | | |
| Alternative Flows: |  | | |
| Exceptions: | SQLException | | |

26 Add new teacher

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Add a new teacher | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to edit information a classroom | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A new subject is successfully added to database | | |
| Normal Flow: | 1. Admin click add new teacher in dashboard  2. Fill information about new teacher  3. Click Save  4. Subject is successfully added | | |
| Alternative Flows: | 1. Admin click add new subject in dashboard  2. Input subject name, number of credits in a form  3. Click Save  4. Subject name is already used  5. Show form again, display error message, back to step 2 | | |
| Exceptions: | SQLException | | |

27 View teacher list

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | View teacher list | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to view list of all teacher | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A list of all subject is displayed | | |
| Normal Flow: | 1. Admin click view teacher list in dashboard  2. Display teacher list | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

28 Update teacher’s information

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Update teacher‘s information | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to edit information a teacher | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A teacher is successfully updated in database | | |
| Normal Flow: | 1. Admin click view teacher list in dashboard  2. Click Update button  3. Fill update form  4. Teacher’s information is successfully updated | | |
| Alternative Flows: | 1. Admin click view teacher list in dashboard  2. Click Update button  3. Fill update form  4. Teacher’s information is invalid  5. Return update form again with error message, back to step 3 | | |
| Exceptions: | SQLException | | |

29 Disable account

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Disable account | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to disable account | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A teacher account is disabled | | |
| Normal Flow: | 1. Admin click view list account in dashboard  2. Click Disable button  3. Confirm disable  4. Account is disabled | | |
| Alternative Flows: |  | | |
| Exceptions: | SQLException | | |

30 View list account

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | View account list | | |
| Created By: | Trung Kien | Created By: | Trung Kien |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to view list of all account | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | A list of all account is displayed | | |
| Normal Flow: | 1. Admin click view account list in dashboard  2. Display account list | | |
| Alternative Flows: |  | | |
| Exceptions: |  | | |

31 Update account

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | Update account | | |
| Created By: | Trung Kien | Date Created: | 21/09/2022 |
| Primary Actor | Super Admin | | |
| Description: | Admin is able to update account | | |
| Preconditions: | Logged in as an admin | | |
| Post-conditions: | Account is successfully updated in database | | |
| Normal Flow: | 1. Admin click view account list in dashboard  2. Click Update button  3. Fill update form  4. Account is successfully updated | | |
| Alternative Flows: | 1. Admin click view teacher list in dashboard  2. Click Update button  3. Fill update form  4. Account’s information is invalid  5. Return update form again with error message, back to step 3 | | |
| Exceptions: | SQLException | | |

32. Update score in student ‘s score list

|  |  |  |  |
| --- | --- | --- | --- |
| UC ID and Name: | UC32 – Update score in student score’s list | | |
| Created By: | Duc Tu | Date Created: | 22/09/2022 |
| Primary Actor | Teacher | | |
| Description: | The teacher of the subject can change score in the student score’s list | | |
| Preconditions: | * Log in as the teacher of the subject | | |
| Post-conditions: | * Updated scores are saved in database | | |
| Normal Flow: | * Continue with UC12 * The teacher selects score to change * The teacher change scores * The teacher confirms actions * The system displays message “Changes saved” | | |
| Alternative Flows: |  | | |
| Exceptions: | 32.0.E1: NumberFormatExceptions  32.0.E2: Null PointerExceptions  32.0.E3: SQlExceptions | | |