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| --- | --- | --- | --- |
| Use Case ID | UC-01 | | |
| Use Case Name | Create a course | | |
| Created By | Pasakorn Kunchai | Last Update By | Apiwat Hantrakool |
| Date Created | 26/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Administrator | | |
| Description | Administrator can create a course by inputting course information which are course name, course id, maximum seat, credit, teacher(s), semester and academic year. | | |
| Trigger | Administrator select “add course” menu. | | |
| Preconditions | Administrator must login by administrator account. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| Course name | string | - | Abstract data type |
| Course ID | string | Length must be 6 | 953111 |
| Maximum seat | number | - | 120 |
| Credit | number | - | 3 |
| Teacher | string | - | Alex |
| Semester | string | - | 1 |
| Academic year | number | - | 2561 |
| Post conditions | 1. The course is displayed on the course list page.  2. The course is added into the database. | | |
| Normal Flows | User | System | |
|  | 3. Administrator input course information.  4. Administrator select “Add Course” button | 1. The system shall provide text fields for inputting course information.  2. The system shall provide “Add Course” button.  5. The system shall validate course information.  6. The system shall collect information into the database.  7. The system shall display course list page. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Administrator must understand English. | | |

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| --- | --- | --- | --- |
| Use Case ID | UC-02 | | |
| Use Case Name | Enroll a course | | |
| Created By | Pasakorn Kunchai | Last Update By | Apiwat Hantrakool |
| Date Created | 26/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Student | | |
| Description | Student can enroll a course by select “Enroll” button at the right of course name in course list page. | | |
| Trigger | Student select “Enroll” button. | | |
| Preconditions | 1. Student must in the course list page.  2. Student must login by student account. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | 1. The course is displayed on the Student information page.  2. The course is added into the database. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall validate student and course information. **[E1]**  2. The system shall collect information into the database.  3. The system shall display student information page. | |
| Alternative Flow | - | | |
| Exception Flow | E1: if student have more than 22 credits.  1. The system shall display “You cannot enroll a course more than 22 credits” when student have more than 22 credits.  2. The system shall display student information page. | | |
| Assumption | Student must understand English. | | |

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| --- | --- | --- | --- |
| Use Case ID | UC-03 | | |
| Use Case Name | View all courses | | |
| Created By | Pasakorn Kunchai | Last Update By | Apiwat Hantrakool |
| Date Created | 26/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Student | | |
| Description | Student can view all course including course ID and course name. | | |
| Trigger | Student select “Course lists” menu. | | |
| Preconditions | Student must login by student account. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The course lists are displayed on the course lists page. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall retrieve course information from the database.  2. The system shall display course lists including course ID and course name. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Student must understand English. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | UC-04 | | |
| Use Case Name | View course details | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 26/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Student and Teacher | | |
| Description | Teacher and student can view details of each course. | | |
| Trigger | 1. Student selects “View” button next to course name in enrolled course list.  2. Teacher selects “View” button next to course name in teaching course list.  3. Teacher and student selects “View” button next to course name in course list page. | | |
| Preconditions | 1. Student must login by student account.  2. Student must already in student information page or course list page.  3. Teacher must login by teacher account.  4. Teacher must already in teacher information page or course list page. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The course details are displayed on the view course page. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall retrieve course information from the database.  2. The system shall display details or information of the course, including course name, course ID, course seat, credit and teacher names. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | 1. Student must understand English.  2. Teacher must understand English. | | |

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| --- | --- | --- | --- |
| Use Case ID | UC-05 | | |
| Use Case Name | View enrolled course list | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 26/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Student | | |
| Description | Student can view list of course that were enrolled. | | |
| Trigger | Student select “Student Information” menu. | | |
| Preconditions | Student must login by student account. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The course list, that student enrolled, is displayed. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall retrieve course information that the student enrolled from the database.  2. The system shall display enrolled course list, including sequence number of each course, course ID, course name, credit and total of the credit. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Student must understand English. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | UC-06 | | |
| Use Case Name | Remove a course | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 26/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Student | | |
| Description | Student can remove a course. | | |
| Trigger | Student select “Remove” button next to course name in enrolled course list. | | |
| Preconditions | 1. Student must login by student account.  2. Student must already in student information page. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The course is removed from the enrolled course list of the student. | | |
| Normal Flows | User | System | |
|  | 2. Student click “Yes” button. [E1] | 1. System shall display text alert box or pop-up as confirm box that has a message that “Are you sure to remove this course?” box.  3. System shall remove the information of the course from the student’s enrolled list of the database.  4. System shall show update enrolled course list that the course is removed. | |
| Alternative Flow | - | | |
| Exception Flow | E1: Student select “No” button  1. If student click “No” button, the system close pop-up and do not do anything.  2. End of use case. | | |
| Assumption | Student must understand English. | | |

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| --- | --- | --- | --- |
| Use Case ID | UC-07 | | |
| Use Case Name | View tuition fee. | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 26/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Student | | |
| Description | Student can view tuition fee of courses that were enrolled. | | |
| Trigger | Student select “Student Information” menu. | | |
| Preconditions | Student must login by student account. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The tuition fee is displayed on the student information page. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall retrieve course information that the student enrolled from the database.  2. The system shall calculate the tuition fee by 20 THB per course credits.  3. The system shall display the tuition fee. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Student must understand English. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | UC-08 | | |
| Use Case Name | View student GPA | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 26/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Student | | |
| Description | Student view own GPA of the courses that were enrolled. | | |
| Trigger | Student select “View GPA” button. | | |
| Preconditions | 1. Student must login by student account.  2. Student must already in student information page. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The GPA will be displayed. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall retrieve grade information of the student of all course that student enrolled from the database.  2. The system shall calculate the GPA from the grades.  3. The system shall display GPA, including list of enrolled course with grade of each course, GPA of this semester, total GPA. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Student must understand English. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | UC-09 | | |
| Use Case Name | View teaching course list | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 27/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Teacher | | |
| Description | Teacher can view list of course that they teach. | | |
| Trigger | Teacher select “Teacher Information” menu. | | |
| Preconditions | Teacher must login by teacher account. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The course list that teacher taught is displayed. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall retrieve course information that the teacher taught from the database.  2. The system shall display teaching course list, including course ID and course name. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Teacher must understand English. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | UC-10 | | |
| Use Case Name | Put the grade | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 27/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Teacher | | |
| Description | Teacher can grade for students in each course. | | |
| Trigger | Teacher select “Grading” button next to course name in teaching course list. | | |
| Preconditions | 1. Teacher must login by teacher account.  2. Teacher must already in the “teacher information” page. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| Grade | String with scroll down value | A, B, C, D, F which integer values are 4, 3, 2, 1, 0 respectively. | A |
| Post conditions | The grade of each student will be put to the database. | | |
| Normal Flows | User | System | |
|  | 5. Teacher select value of the scroll down button.  8. Teacher click “Submit” button. | 1. The system shall provide course grading interface in “grading” page.  2. The system shall show list of students in the course including student ID and student name.  3. The system shall provide scroll down button next to student name consist value of A, B, C, D and F which values are 4, 3, 2, 1 respectively.  4. The system provide “Submit” button.  6. The system shall calculate the grade summary and GPA of the course.  7. The system shall display the grade summary and GPA of the course that relate to the student grades.  9. The system shall put the grade value of each student to the database. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Teacher must understand English. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | UC-11 | | |
| Use Case Name | View grade summary | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 27/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Teacher | | |
| Description | Teacher can see the summary of the grade they give to the student. | | |
| Trigger | Teacher select “Grading” button next to course name in teaching course list. | | |
| Preconditions | 1. Teacher must login by teacher account.  2. Teacher must already in the “teacher information” page.  3. Teacher must already grade to student. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The grade summary will be display. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall provide course grading interface in “grading” page.  2. The system shall show list of students in the course including student ID and student name.  3. The system shall display the summary of the grade they give to the student as the distribution of each grade. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Teacher must understand English. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | UC-12 | | |
| Use Case Name | View GPA of course | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 28/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Teacher | | |
| Description | Teacher can see the GPA of the course that is grade average of student in the course. | | |
| Trigger | Teacher select “Grading” button next to course name in teaching course list. | | |
| Preconditions | 1. Teacher must login by teacher account.  2. Teacher must already in the “teacher information” page.  3. Teacher must already grade to student. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | The GPA of the course will be displays. | | |
| Normal Flows | User | System | |
|  |  | 1. The system shall provide course grading interface in “grading” page.  2. The system shall show list of students in the course including student ID and student name.  3. The system shall display the GPA of the course from calculate the average of grade of all student in the course. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | Teacher must understand English. | | |

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID | UC-13 | | |
| Use Case Name | Login | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 28/2/2018 | Last Revision Date | 28/2/2018 |
| Actors/Users | Administrator, Teacher, Student | | |
| Description | Users or actors can login to access the system by using their account including e-mail and password. | | |
| Trigger | User starts to the system. | | |
| Preconditions | User does not log in yet. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| E-mail | string | Must be Email form, and no blank space | nekky.apiwat@hotmail.com |
| Password | string | No blank space | nekky123456789 |
| Post conditions | User can access to the system. | | |
| Normal Flows | User | System | |
|  | 5. User input user name in the “E-mail” input text box  6. User input user password in the “password” input text box.  7. User click “Login” button. | 1. System shall provide “Login” interface.  2. System shall provide “E-mail” input text box.  3. System shall provide “Password” input text box.  4. System shall provide “Login” button.  8. System shall validate the E-mail and the password. [A1], [A2], [A3] | |
| Alternative Flow | **A1**: User input incorrect email form of the user name.  1. System shall display alert text under text field that “You must enter a valid email address”.  2. Go to normal flow 1.  **A2**: User do not input either e-mail or user password.  1. System shall display alert text under text field that “This is required field”.  2. Go to normal flow 1.  **A3**: Either e-mail or user password are not match with the data in the database.  1. System shall display alert pop-up text that “e-mail or Password does not exist”.  2. Go to normal flow 1. | | |
| Exception Flow | - | | |
| Assumption | User must understand English. | | |

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| --- | --- | --- | --- |
| Use Case ID | UC-14 | | |
| Use Case Name | Logout | | |
| Created By | Apiwat Hantrakool | Last Update By | Apiwat Hantrakool |
| Date Created | 28/2/2018 | Last Revision Date | 28/2/2018 |
| Actors | Administer, Teacher, Student | | |
| Description | User can logout their account. | | |
| Trigger | User click “Logout” button. | | |
| Preconditions | User must already log in. | | |
| Use Case Input Specification | | | |
| Input | type | Constraint | Example |
| - | - | - | - |
| Post conditions | User can sign out to the system. | | |
| Normal Flows | User | System | |
|  |  | 1. System shall log out for user.  2. System shall go to “Login” page. | |
| Alternative Flow | - | | |
| Exception Flow | - | | |
| Assumption | User must understand English. | | |