**User Requirement Specification**

**User Requirement Specification of Web application**

# **URS1-1. Lecturer can register to the system**

Lecturer must register into the web application, in order to using the other features as Lecturer. Lecture provides lecturer ID, lecturer username, lecturer password, lecturer name, lecturer faculty, lecturer department, and lecturer tel into the system. After, the registration has been completed. The web application will redirect to the Lecturer main page.

**Actor:** The users

**Prerequisite:** -

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| lecturer ID | Only number is allowed. | 21115011 |  |
| lecturer username | Only Alphabet is allowed, within the range of 4-16 Characters | “tony” |  |
| lecturer password | Can be any character within the range of 4-16 characters. | “12345” |  |
| lecturer name | Only The combination of alphabet and space is allowed. | “Tony Stark” |  |
| lecturer faculty | Can be any character is allowed. | College of Arts media and technology, Chiang mai University |  |
| lecturer department | Can be any character is allowed. | Software engineer |  |
| lecturer tel | Only number is allowed. | 0832109999 |  |

## **Flow of Execution:**

1. Lecturer enters the login page.
2. Lecturer enters the Lecturer registration page.
3. Lecturer provides the Lecturer information into the registration page.
4. Lecturer submits the Lecturer registration form into the web application.
5. The system validate the existing of the username and the information format.
6. The system display “Registration Successful” message.
7. The system redirect into the Lecturer main page with registration successful message.

**Alternative Flow:**

5A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + The wrong lecturer ID format: The error message is “The Lecturer ID must be the number only”
  + The wrong username format: The error message is “The Lecturer’s username must be only 4-16 alphabet characters”
  + The wrong password format: The error message is “The Lecturer’s password must be only 4-16 characters”
  + The wrong name format: The error message is “The Lecturer’s name must be the combination of alphabet and space only”
  + The wrong Tel format: The error message is “The Lecturer’s tel must be number only”

5B. if Lecturer submitted the data, but there is the existing username in the system. The system won’t allow the user the register with that Username. The system will display the error message “Existing Lecturer’s username, please using different Lecturer’s username” to the user.

# **URS1-2. Student can register to the system**

Student must register into the web application, in order to using the other features as Student. Student provides student ID, student username, student password, student name, student address, student faculty, student department, and student tel into the system. After, the registration has been completed. The web application will redirect to the Student main page.

**Actor:** The users

**Prerequisite:** -

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| student ID | Only number is allowed. | 542115099 |  |
| student username | Only Alphabet is allowed, within the range of 4-16 Characters | “jenny” |  |
| student password | Can be any character within the range of 4-16 characters. | “12345” |  |
| student name | Only The combination of alphabet and space is allowed. | “Jenny Stark” |  |
| student faculty | Can be any character is allowed. | College of Arts media and technology, Chiang mai University |  |
| student department | Can be any character is allowed. | Software engineer |  |
| student address | Can be any character. | Women dorm 4, Chiang mai university, Chiang mai, Thailand, 50000 |  |
| student tel | Only number is allowed. | 0823207777 |  |

## **Flow of Execution:**

1. Student enters the login page.
2. Student enters the Student registration page.
3. Student provides the Student information into the registration page.
4. Student submits the Student registration form into the web application.
5. The system validate the existing of the username and the information format.
6. The system display “Registration Successful” message.
7. The system redirect into the Student main page with registration successful message.

**Alternative Flow**

5A. if Student input data in the wrong format, the system should provide the error message as followed:

* + The wrong student ID format: The error message is “The Student ID must be number only”
  + The wrong username format: The error message is “The Student’s username must be only 4-16 alphabet characters”
  + The wrong password format: The error message is “The Student’s password must be only 4-16 characters”
  + The wrong name format: The error message is “The Student’s name must be the combination of alphabet and space only”
  + The wrong Tel format: The error message is “The Student’s tel must be number only”

5B. if Student submitted the data, but there is the existing username in the system. The system won’t allow the user the register with that Username. The system will display the error message “Existing Student’s username, please using different Student’s username” to the user.

# **URS1-3. Administrator can approve Lecturer or Student account which has registered.**

The Administrator must approve Lecturer or Student account that fully qualification.

**Actor:** The Administrator

## **Input:** None

**Prerequisite:** -

## **Flow of Execution:**

1. Administrator enters the Administrator main page.
2. Administrator enters the account approbation page.
3. Administrator submits to approve Lecturer or Student account from account approbation page.
4. The system display “Approbation Successful” message.
5. The web application redirect to the account approbation page.

# **URS1-4. Lecturer can edit his/her personal information.**

Lecturer can edit his/her personal information which consist lecturer password, lecturer name, lecturer faculty, lecturer department, and lecturer tel.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| lecturer password | Can be any character within the range of 4-16 characters. | “123456” |  |
| lecturer name | Only The combination of alphabet and space is allowed. | “Tony Stark” |  |
| lecturer faculty | Can be any character is allowed. | College of Arts media and technology, Chiang mai University |  |
| lecturer department | Can be any character is allowed. | Software engineering |  |
| lecturer tel | Only number is allowed. | 0832109999 |  |

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Lecturer personal information page.
3. The system provides lecturer password, lecturer name, lecturer faculty, lecturer department, and lecturer tel.
4. Lecturer provides information that want to edit.
5. Lecturer provides confirm password for editing.
6. Lecturer submits the Lecturer editing form into the web application.
7. The system validates the password and confirm password.
8. The system display “Editing Information Successful” message.
9. The system redirect to the Lecturer main page.

**Alternative Flow:**

6A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + The wrong password format: The error message is “The Lecturer’s password must be only 4-16 characters”
  + The wrong name format: The error message is “The Lecturer’s name must be the combination of alphabet and space only”
  + The wrong Tel format: The error message is “The Lecturer’s tel must be number only”

6B. if Lecturer submitted the data, but password and confirm password is not matched. The system will display the error message “Password and confirm password is not matched” to Lecturer.

# **URS1-5. Student can edit his/her personal information.**

Student can edit his/her personal information which consist student ID, student password, student name, student address, student faculty, student department, and student tel.

**Actor:** Student

**Prerequisite:** Student must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| student password | Can be any character within the range of 4-16 characters. | “123456” |  |
| student name | Only The combination of alphabet and space is allowed. | “Jenny Stark” |  |
| student faculty | Can be any character is allowed. | College of Arts media and technology, Chiang mai University |  |
| student department | Can be any character is allowed. | Software engineering |  |
| student address | Can be any character. | Women dorm 4, Chiang mai university, Chiang mai, Thailand, 50000 |  |
| student tel | Only number is allowed. | 0823207777 |  |

## **Flow of Execution:**

1. Student enters the Student main page.
2. Student enters the Student personal information page.
3. The system provides consist student password, student name, student faculty, student department, student address, and student tel.
4. Student provides information that want to edit.
5. Student provides confirm password for editing.
6. Student submits the Lecturer editing form into the web application.
7. The system validates the password and confirm password.
8. The system display “Editing Information Successful” message.
9. The system redirect to the Student main page.

**Alternative Flow:**

6A. if Student input data in the wrong format, the system should provide the error message as followed:

* + The wrong password format: The error message is “The Student’s password must be only 4-16 characters”
  + The wrong name format: The error message is “The Student’s name must be the combination of alphabet and space only”
  + The wrong Tel format: The error message is “The Student’s tel must be number only”

6B. if Student submitted the data, but password and confirm password is not matched. The system will display the error message “Password and confirm password is not matched” to Student.

# **URS1-6. Lecturer can login to the system.**

After the Lecturer account was approved. Lecturer can login to the system by providing username and password.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| lecturer username | Only Alphabet is allowed, within the range of 4-16 Characters | “tony” |  |
| lecturer password | Can be any character within the range of 4-16 characters. | “12345” |  |

## **Flow of Execution:**

1. Lecturer enters the Login page.
2. Lecturer provides login information into the web application.
3. Lecturer submit login form into the web application.
4. The system validate login information from Lecturer.
5. The system redirect into the Lecturer main page with Lecturer ID on the top right of the interface.

**Alternative Flow**

4A. if the username and password are not matched, the system will display the error message “Invalid Username and/or Password” to the user.

# **URS1-7. Student can login to the system.**

After the Student account was approved. Student can login to the system by providing username and password.

**Actor:** Student

**Prerequisite:** Student must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| student username | Only Alphabet is allowed, within the range of 4-16 Characters | “jenny” |  |
| student password | Can be any character within the range of 4-16 characters. | “12345” |  |

## **Flow of Execution:**

1. Student enters the Login page.
2. Student provides login information into the web application.
3. Student submit login form into the web application.
4. The system validate login information from Student.
5. The system redirect into the Student main page with Student ID on the top right of the interface.

**Alternative Flow**

4A. if the username and password are not matched, the system will display the error message “Invalid Username and/or Password” to the user.

# **URS1-8. Administrator can login to the system.**

Administrator can login to the system by providing username and password.

**Actor:** Administrator

**Prerequisite:** Administrator must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| administrator username | Only Alphabet is allowed, within the range of 4-16 Characters | “admin” |  |
| administrator password | Can be any character within the range of 4-16 characters. | “12345” |  |

## **Flow of Execution:**

1. Administrator enters the Login page.
2. Administrator provides login information into the web application.
3. Administrator submit login form into the web application.
4. The system validate login information from Administrator.
5. The system redirect into the Administrator main page.

**Alternative Flow**

4A. if the username and password are not matched, the system will display the error message “Invalid Username and/or Password” to the user.

# **URS1-9. Administrator can create a semester.**

Administrator can create a semester by providing semester academic year information.

**Actor:** Administrator

**Prerequisite:** Administrator must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| Semester academic year | Form of semester academic year “S/YYYY”  - S is a semester  - Y is an academic year | “1/2557” |  |

## **Flow of Execution:**

1. Administrator enters the Administrator main page.
2. Administrator enters the Semester page.
3. Administrator submits addition semester academic year form into the web application.
4. The system redirects to the Addition semester page.
5. Administrator provides semester academic year information into the web application.
6. Administrator submits semester academic year information.
7. The system validate semester academic year information from Administrator.
8. The system display “Addition Semester Successful” message.

**Alternative Flow**

5A. if Administrator input semester academic year in the wrong format, the system should provide the error message as followed:

* + The wrong semester academic year format: The error message is “Semester academic year must be S/YYYY form. Which S is a semester and YYYY is an academic year”

# **URS1-10. Administrator can edit a semester.**

Administrator can edit a semester by providing semester academic year information.

**Actor:** Administrator

**Prerequisite:** Administrator must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| Semester academic year | Form of semester academic year “S/YYYY”  - S is a semester  - Y is an academic year | “2/2557” |  |

## **Flow of Execution:**

1. Administrator enters the Administrator main page.
2. Administrator enters the Semester page.
3. Administrator submits edition semester academic year form.
4. The system redirects to the Edition semester page.
5. Administrator provides semester academic year information into the web application.
6. Administrator submits semester academic year into the web application.
7. The system validate semester academic year information from Administrator.
8. The system display “Editing Semester Successful” message.
9. The system redirects to the Semester page.

**Alternative Flow**

7A. if Administrator input semester academic year in the wrong format, the system should provide the error message as followed:

* + The wrong semester academic year format: The error message is “Semester academic year must be S/YYYY form. Which S is a semester and YYYY is an academic year”

# **URS1-11. Administrator can delete a semester.**

Administrator can delete a semester.

**Actor:** Administrator

**Prerequisite:** Administrator must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Administrator enters the Administrator main page.
2. Administrator enters the Semester page.
3. Administrator select a semester academic year that want to delete.
4. Administrator submits deletion semester academic year form.
5. The system redirects to the semester page.
6. Administrator delete semester academic year into the web application.
7. The system display “Deletion Semester Successful” message.
8. The system redirects to the Semester page.

# **URS1-12. Administrator can create a course.**

Administrator can create a course by providing course name, course credit, course description, lecturer name. Administrator can register a list of students to a course.

**Actor:** Administrator

**Prerequisite:** Administrator must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| course name | Can be any character is allowed. | “Computer programming” |  |
| course credit | Only number is allowed. | 3 |  |
| course description | Can be any character is allowed. | Computer programing is a learn process that leads from an original formulation of a computing problem to executable programs. |  |
| lecturer name | Administrator select a lecturer name by selecting from the database. | “Dr. Tony Stark’’ |  |

## **Flow of Execution:**

1. Administrator enters the Administrator main page.
2. Administrator enters the Course management page.
3. Administrator enters the Course Adding page.
4. Administrator provides course information into the web application.
5. Administrator submit the course information form into the web application.
6. The system validate course information from Administrator.
7. The system redirects to the Student Adding page.
8. Administrator add a list of students to Course.
9. Administrator submit a list of student to Course into the web application.
10. The system display “Adding Course Successful” message.
11. The system redirects to the Course management page.

**Alternative Flow**

6A. if Administrator input data in the wrong format, the system should provide the error message as followed:

* + The wrong credit format: The error message is “The course credit must be number only”

# **URS1-13. Administrator can edit a course.**

Administrator can edit a course by providing course name, course credit, course description, lecturer name. Administrator can add or remove students from a course.

**Actor:** Administrator

**Prerequisite:** Administrator must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| course name | Can be any character is allowed. | “Vocabulary in Thai” |  |
| course credit | Only number is allowed. | 3 |  |
| course description | Can be any character is allowed. | Vocabulary in Thai is a learn vocabularies that Thai uses in life every day. |  |
| lecturer name | Administrator select a lecturer name by selecting from the database. | “Aj. Linlee” |  |

## **Flow of Execution:**

1. Administrator enters the Administrator main page.
2. Administrator enters the Course management page.
3. Administrator select a course that want to edit.
4. Administrator submits editing course form.
5. The system redirects to the Course editing page.
6. Administrator provides course information into the web application.
7. Administrator submits the course information form into the web application.
8. The system validate course information from Administrator.
9. Administrator submit all information of editing.
10. The system display “editing Course Successful” message.
11. The system redirects to the Course management page.

**Alternative Flow**

8A. if Administrator input data in the wrong format, the system should provide the error message as followed:

* + The wrong credit format: The error message is “The course credit must be number only”

6A. Administrator remove students from the course.

1. Administrator selects students.
2. Administrator submit the remove student form into the web application.
3. Flow of execution resumes to step 9.

6B. Administrator adds students to the course.

1. Administrator enter adding student page.
2. Administrator selects a list of students for adding in the course.
3. Administrator submit the add student form into the web application.
4. Flow of execution resumes to step 9.

# **URS1-14. Administrator can delete a course.**

Administrator can delete a course.

**Actor:** Administrator

**Prerequisite:** Administrator must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Administrator enters the Administrator main page.
2. Administrator enters the Course management page.
3. Administrator select a course that want to delete.
4. Administrator submit deleting course form.
5. The system display “Deleting Course Successful” message.

# **URS1-15. Administrator can view courses information.**

Administrator can view a course information.

**Actor:** Administrator

**Prerequisite:** Administrator must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Administrator enters the Administrator main page.
2. Administrator enters the Course management page.
3. The system provides all course name.
4. Administrator selects a course that want to view.
5. Administrator submits viewing course form.
6. The system redirects to the Course information page.
7. The system provides a course information into the web applicaiton which are course name, credit, description, lecturer name, a list of students in the course.

# **URS1-16. Lecturer can view courses information.**

Lecturer can view a course information into the web application.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits viewing course information form.
8. The system provides a course information into the web application which are course name, credit, description, lecturer name, a list of students in the course.

# **URS1-17. Student can view courses information.**

Student can view a course information into the web application.

**Actor:** Student

**Prerequisite:** Student must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Student enters the Student main page.
2. Student enters the Course main page.
3. The system provides all courses name which were studied by Student.
4. Student selects a course that want to view.
5. Student submits viewing course form.
6. The system redirects to the Course information page.
7. The system provides a course information into the web application which are course name, credit, description, lecturer name, a list of students in the course.

# **URS1-18. Lecturer can assign assignments or quizzes which are multiple choices question, true/false question, and short answers.**

Lecturer can assign assignments or quizzes into the web application. Lecturer can limit access to the assignment or quiz of authority. Lecturer must provide type of testing, an amount of questions, type of question, question information, student name, randomize order of the question status, and posting status.

Lecturer must provide question information by separating from type of questions.

* Lecturer can assign multiple choices questions which provide type of question, question description, choice description, and an answer.
* Lecturer can assign true/false questions which provide type of question, questions description, choice description, and an answer.
* Lecturer can assign short answers which provide type of question, questions description.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of testing | The system provides two types of testing which are assignment and quiz. Lecturer must select one type only. | Assignment |  |
| amount of question | Only number is allowed. | 3 |  |
| student name | Lecturer adds a list of students for limiting access to the assignment or quiz. | 542115099, 542115091 |  |
| randomize order of the question status | This status is showing status of random order of the question to student. | random |  |
| Posting status | Status is an available and not available. | available |  |

Multiple choices question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | Multiple choices |  |
| question description | Can be any character is allowed. | What is an answer of 1+1? |  |
| choice description | Choices must have four choices. Can be any character is allowed. | a. 2 b. 1 c. 3 d. 5 |  |
| answer | Only “a, b, c, d” is allowed. | a |  |

True/false question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | True/false question |  |
| question description | Can be any character is allowed. | Answer of 1+1 is 2. |  |
| choice description | Choices must have two choices. Can be true and false is allowed. | a. false  b. true |  |
| answer | Only “a, b, c, d” is allowed. | b |  |

Short answer

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | Short answer |  |
| question description | Can be any character is allowed. | What is an answer of 1+1? You must explain how to find the answer. |  |

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer submits adding testing form.
10. The system redirects to the testing management page.
11. Lecturer provides type of testing, an amount of questions, student name, randomize order of the question status, and posting status into the testing page.
12. Lecturer submits testing information into web application.
13. The system validates testing information from Lecturer.
14. The system redirects to the assigning assignment and quiz page.
15. Lecturer provides type of question (Multiple choices), question description, choice description, and an answer.
16. Lecturer submits assignment or quiz information into web application.
17. The system validates testing information from Lecturer.
18. The system redirects to the assigning assignment and quiz in a next page until last page. Flow of execution resumes to step 13
19. The system redirects to the overview testing page.
20. Lecturer submit creating testing form.
21. The system display “Creating Assignment Successful” message.
22. The system redirects to the Course main page.

**Alternative Flow:**

13A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + The wrong amount of questions format: The error message is “Amount of questions must be number only”

15A. Lecturer provides type of question is true/false question.

1. Lecturer provides question description, choice description, and an answer.
2. Lecturer submits assignment or quiz information into web application.
3. The system validates testing information from Lecturer.
4. Flow of execution resumes to step 16.

15B. Lecturer provides type of question is short answer.

1. Lecturer provides question description.
2. Lecturer submits assignment or quiz information into web application.
3. The system validates testing information from Lecturer.
4. Flow of execution resumes to step 16.

13A 3A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + - The wrong answer format: The error message is “Answer must be a, b, c, and d only”

17A if Lecturer input data in the wrong format in multiple choices question the system should provide the error message as followed:

* + The wrong answer format: The error message is “Answer must be a, b, c, and d only”

21A if Lecturer creates a quiz is completed, the system should provide the Successful massage as followed:

* + The system display “Creating Quiz Successful” message.

# **URS1-19. Lecturer can edit assignments or quizzes information which are multiple choices question, true/false question, and short answers.**

Lecturer can edit assignments or quizzes information into the web application. Lecturer can limit access to the assignment or quiz of authority. Lecturer must provide type of testing, an amount of questions, type of question, question information, student name, randomize order of the question status, and posting status.

Lecturer must provide question information by separating from type of questions.

* Lecturer can edit multiple choices questions which provide type of question, question description, choice description, and an answer.
* Lecturer can edit true/false questions which provide type of question, questions description, choice description, and an answer.
* Lecturer can edit short answers which provide type of question, questions description.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of testing | The system provides two types of testing which are assignment and quiz. Lecturer must select one type only. | Assignment |  |
| amount of question | Only number is allowed. | 3 |  |
| student name | Lecturer adds a list of students for limiting access to the assignment or quiz. | 542115099, 542115091,  542115092 |  |
| randomize order of the question status | This status is showing status of random order of the question to student. | random |  |
| Posting status | Status is an available and not available. | Available |  |

Multiple choices question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | Multiple choices |  |
| question description | Can be any character is allowed. | What is an answer of 1+1? |  |
| choice description | Choices must have four choices. Can be any character is allowed. | a. 2 b. 1 c. 3 d. 5 |  |
| answer | Only “a, b, c, d” is allowed. | a |  |

True/false question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | True/false question |  |
| question description | Can be any character is allowed. | Answer of 1+1 is 2. |  |
| choice description | Choices must have two choices. Can be true and false is allowed. | a. false  b. true |  |
| answer | Only “a, b, c, d” is allowed. | b |  |

Short answer

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | Short answer |  |
| question description | Can be any character is allowed. | What is an answer of 1+1? You must explain how to find the answer. |  |

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer select a testing that want to edit.
10. Lecturer submits editing testing form.
11. Lecturer provides type of testing, an amount of questions, student name, randomize order of the question status, and posting status into the testing page.
12. Lecturer submits testing information into web application.
13. The system validates testing information from Lecturer.
14. The system redirects to the assigning assignment and quiz page.
15. Lecturer provides type of question (Multiple choices), question description, choice description, and an answer.
16. Lecturer submits assignment or quiz information into web application.
17. The system validates testing information from Lecturer.
18. The system redirects to the assigning assignment and quiz in a next page until last page. Flow of execution resumes to step 15
19. The system redirects to the overview testing page.
20. Lecturer submit editing testing form.
21. The system display “Editing Assignment Successful” message.
22. The system redirects to the Course main page.

**Alternative Flow:**

13A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + The wrong amount of questions format: The error message is “Amount of questions must be number only”

15A. Lecturer provides type of question is true/false question.

1. Lecturer provides question description, choice description, and an answer.
2. Lecturer submits assignment or quiz information into web application.
3. The system validates testing information from Lecturer.
4. Flow of execution resumes to step 16.

15B. Lecturer provides type of question is short answer.

1. Lecturer provides question description.
2. Lecturer submits assignment or quiz information into web application.
3. The system validates testing information from Lecturer.
4. Flow of execution resumes to step 16.

15A 3A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + - The wrong answer format: The error message is “Answer must be a, b, c, and d only”

17A if Lecturer input data in the wrong format in multiple choices question the system should provide the error message as followed:

* + The wrong answer format: The error message is “Answer must be a, b, c, and d only”

21A if Lecturer edits a quiz is completed, the system should provide the Successful massage as followed:

* + The system display “Editing Quiz Successful” message.

# **URS1-20. Lecturer can delete assignments or quizzes which are multiple choices question, true/false question, and short answers.**

Lecturer can delete assignments or quizzes into the web application.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer select a testing that want to delete.
10. Lecturer submits deleting testing form.
11. The system display “Deleting Assignment Successful” message.
12. The system redirects to the overall testing page.

# **URS1-21. Lecturer can review overall student’s answer in each choice of assignment or quiz in chart format.**

Lecturer can review overall student’s answer in each choice of assignment or quiz in chart format into the web application. Which Lecturer can analyze thinking of students in decision choose answers.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer select a testing that want to review overall student’s answer in each choice of assignment or quiz in chart format.
10. Lecturer submits chart format of student’s answer form.
11. The system redirects to the chart format of student’s answer page.

# **URS1-22. Lecturer can check whether the assignments are submitted in time.**

Lecturer can check whether who submitted an assignment or quiz in time into the web application. Also, who didn’t submit an assignment or quiz in time.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer select a testing that want to check students that submit assignments in time.
10. Lecturer submit assignment status form.
11. The system redirects to the chart format of student’s answer page.

# **URS1-23. Student can take assignments or quizzes which are multiple choices, true/false questions, short answers.**

Student can take assignments or quizzes which are multiple choices, true/false questions, short answers via the web application.

Student must provide answer information by separating from type of questions.

* Student can take multiple choices questions which provide one answer only in each order of questions.
* Student can take true/false questions which provide one answer only in each order of questions.
* Student can take short answers which provide characters or texts.

**Actor:** Student

**Prerequisite:** Student must have logged**.**

## **Input:**

Multiple choices question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| multiple choices answer | Only “a, b, c, d” is allowed. | a |  |

True/false question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| true/false answer | Only “a, b, c, d” is allowed. | b |  |

Short answer

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| short answer | Can be any character is allowed. | From the picture is a dog. |  |

## **Flow of Execution:**

1. Student enters the Student main page.
2. Student enters the Overall course page.
3. The system provides all courses name which were studied by Student.
4. Student selects a course that want to view.
5. Student submits viewing course form.
6. The system redirects to the Course main page.
7. Student submits overall testing form.
8. The system redirects to the overall testing page.
9. Student select a testing that want to take an assignment or quiz.
10. Student submit taking assignment or quiz form.
11. The system redirects assignment or quiz page.
12. Student provides answers in every question.
13. Student submit answers.
14. The system redirects to overall testing page.

**User Requirement Specification of Mobile application**

# **URS2-1. Lecturer can register to the system**

Lecturer must register into the mobile application, in order to using the other features as Lecturer. Lecturer have to provide lecturer ID, lecturer username, lecturer password, lecturer name, lecturer faculty, lecturer department, and lecturer tel into the system. After, the registration has been completed. The mobile application will redirect to the Lecturer main page.

**Actor:** The users

**Prerequisite:** -

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| lecturer ID | Only number is allowed. | 21115011 |  |
| lecturer username | Only Alphabet is allowed, within the range of 4-16 Characters | “tony” |  |
| lecturer password | Can be any character within the range of 4-16 characters. | “12345” |  |
| lecturer name | Only The combination of alphabet and space is allowed. | “Tony Stark” |  |
| lecturer faculty | Can be any character is allowed. | College of Arts media and technology, Chiang mai University |  |
| lecturer department | Can be any character is allowed. | Software engineer |  |
| lecturer tel | Only number is allowed. | 0832109999 |  |

## **Flow of Execution:**

1. Lecturer enters the login page.
2. Lecturer enters the Lecturer registration page.
3. Lecturer provides the Lecturer information into the registration page.
4. Lecturer submit the Lecturer registration form into the mobile application.
5. The system validate the existing of the username and the information format.
6. The system display “Registration Successful” message.
7. The system redirect into the Lecturer main page with registration successful message.

**Alternative Flow:**

5A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + The wrong lecturer ID format: The error message is “The Lecturer ID must be the number only”
  + The wrong username format: The error message is “The Lecturer’s username must be only 4-16 alphabet characters”
  + The wrong password format: The error message is “The Lecturer’s password must be only 4-16 characters”
  + The wrong name format: The error message is “The Lecturer’s name must be the combination of alphabet and space only”
  + The wrong Tel format: The error message is “The Lecturer’s tel must be number only”

5B. if Lecturer submitted the data, but there is the existing username in the system. The system won’t allow the user the register with that Username. The system will display the error message “Existing Lecturer’s username, please using different Lecturer’s username” to the user.

# **URS2-2. Student can register to the system**

Student must register into the mobile application, in order to using the other features as Student. Student have to provide student ID, student username, student password, student name, student address, student faculty, student department, and student tel into the system. After, the registration has been completed. The mobile application will redirect to the Student main page.

**Actor:** The users

**Prerequisite:** -

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| student ID | Only number is allowed. | 542115099 |  |
| student username | Only Alphabet is allowed, within the range of 4-16 Characters | “jenny” |  |
| student password | Can be any character within the range of 4-16 characters. | “12345” |  |
| student name | Only The combination of alphabet and space is allowed. | “Jenny Stark” |  |
| student faculty | Can be any character is allowed. | College of Arts media and technology, Chiang mai University |  |
| student department | Can be any character is allowed. | Software engineer |  |
| student address | Can be any character. | Women dorm 4, Chiang mai university, Chiang mai, Thailand, 50000 |  |
| student tel | Only number is allowed. | 0823207777 |  |

## **Flow of Execution:**

1. Student enters the login page.
2. Student enters the Student registration page.
3. Student provides the Student information into the registration page.
4. Student submits the Student registration form into the mobile application.
5. The system validate the existing of the username and the information format.
6. The system display “Registration Successful” message.
7. The system redirect into the Student main page with registration successful message.

**Alternative Flow**

5A. if Student input data in the wrong format, the system should provide the error message as followed:

* + The wrong student ID format: The error message is “The Student ID must be number only”
  + The wrong username format: The error message is “The Student’s username must be only 4-16 alphabet characters”
  + The wrong password format: The error message is “The Student’s password must be only 4-16 characters”
  + The wrong name format: The error message is “The Student’s name must be the combination of alphabet and space only”
  + The wrong Tel format: The error message is “The Student’s tel must be number only”

5B. if Student submitted the data, but there is the existing username in the system. The system won’t allow the user the register with that Username. The system will display the error message “Existing Student’s username, please using different Student’s username” to the user.

# **URS2-3. Lecturer can edit his/her personal information.**

Lecturer can edit his/her personal information into the mobile application which consist lecturer ID, lecturer password, lecturer name, lecturer faculty, lecturer department, and lecturer tel.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| lecturer ID | Only number is allowed. | 21115011 |  |
| lecturer password | Can be any character within the range of 4-16 characters. | “123456” |  |
| lecturer name | Only The combination of alphabet and space is allowed. | “Tony Stark” |  |
| lecturer faculty | Can be any character is allowed. | College of Arts media and technology, Chiang mai University |  |
| lecturer department | Can be any character is allowed. | Software engineering |  |
| lecturer tel | Only number is allowed. | 0832109999 |  |

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Personal information page.
3. The system provides lecturer ID, username, password, name, department, and tel.
4. Lecturer provides information that want to edit.
5. Lecturer provides confirm password for editing.
6. The system validate the existing of the confirm password and the information format.
7. The system display “Editing Information Successful” message.
8. The system redirect to the Lecturer main page.

**Alternative Flow:**

6A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + The wrong lecturer ID format: The error message is “The Lecturer ID must be number only”
  + The wrong username format: The error message is “The Lecturer’s username must be only 4-16 alphabet characters”
  + The wrong password format: The error message is “The Lecturer’s password must be only 4-16 characters”
  + The wrong name format: The error message is “The Lecturer’s name must be the combination of alphabet and space only”
  + The wrong Tel format: The error message is “The Lecturer’s tel must be number only”

6B. if Lecturer submitted the data, but password and confirm password is not matched. The system will display the error message “Password and confirm password is not matched” to Lecturer.

# **URS2-4. Student can edit his/her personal information.**

Student can edit his/her personal information into the mobile application which consist student ID, student password, student name, student address, student faculty, student department, and student tel.

**Actor:** Student

**Prerequisite:** Student must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| student ID | Only number is allowed. | 542115099 |  |
| student password | Can be any character within the range of 4-16 characters. | “123456” |  |
| student name | Only The combination of alphabet and space is allowed. | “Jenny Stark” |  |
| student faculty | Can be any character is allowed. | College of Arts media and technology, Chiang mai University |  |
| student department | Can be any character is allowed. | Software engineering |  |
| student address | Can be any character. | Women dorm 4, Chiang mai university, Chiang mai, Thailand, 50000 |  |
| student tel | Only number is allowed. | 0823207777 |  |

## **Flow of Execution:**

1. Student enters the Student main page.
2. Student enters the Student information page.
3. The system provides consist student ID, username, password, name, address, faculty, department, and tel.
4. Student provides information that want to edit.
5. Student provides confirm password for editing.
6. The system validate the existing of the confirm password and the information format.
7. The system display “Editing Information Successful” message.
8. The system redirect to the Student main page.

**Alternative Flow:**

6A. if Student input data in the wrong format, the system should provide the error message as followed:

* + The wrong student ID format: The error message is “The Student ID must be number only”
  + The wrong username format: The error message is “The Student’s username must be only 4-16 alphabet characters”
  + The wrong password format: The error message is “The Student’s password must be only 4-16 characters”
  + The wrong name format: The error message is “The Student’s name must be the combination of alphabet and space only”
  + The wrong Tel format: The error message is “The Student’s tel must be number only”

6B. if Student submitted the data, but password and confirm password is not matched. The system will display the error message “Password and confirm password is not matched” to Student.

# **URS2-5. Lecturer can login to the system.**

After the Lecturer account was approved. Lecturer can login to the system by providing username and password into the mobile application.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| lecturer username | Only Alphabet is allowed, within the range of 4-16 Characters | “tony” |  |
| lecturer password | Can be any character within the range of 4-16 characters. | “12345” |  |

## **Flow of Execution:**

1. Lecturer enters the Login page.
2. Lecturer provides login information into the mobile application.
3. Lecturer submit login form into the mobile application.
4. The system validate login information from Lecturer.
5. The system redirect into the Lecturer main page with Lecturer ID on the top right of the interface.

**Alternative Flow**

4A. if the username and password are not matched, the system will display the error message “Invalid Username and/or Password” to the user.

# **URS2-6. Student can login to the system.**

After the Student account was approved. Student can login to the system by providing username and password into the mobile application.

**Actor:** Student

**Prerequisite:** Student must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| student username | Only Alphabet is allowed, within the range of 4-16 Characters | “jenny” |  |
| student password | Can be any character within the range of 4-16 characters. | “12345” |  |

## **Flow of Execution:**

1. Student enters the Login page.
2. Student provides login information into the mobile application.
3. Student submit login form into the mobile application.
4. The system validate login information from Student.
5. The system redirect into the Student main page with Student ID on the top right of the interface.

**Alternative Flow**

4A. if the username and password are not matched, the system will display the error message “Invalid Username and/or Password” to the user.

# **URS2-7. Lecturer can view courses information.**

Lecturer can view a course information into the mobile application.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits viewing course information form.
8. The system provides a course information into the mobile application which are course name, credit, description, lecturer name, a list of students in the course.

# **URS2-8. Student can view courses information.**

Student can view a course information into the mobile application.

**Actor:** Student

**Prerequisite:** Student must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Student enters the Student main page.
2. Student enters the Course main page.
3. The system provides all courses name which were studied by Student.
4. Student selects a course that want to view.
5. Student submits viewing course form.
6. The system redirects to the Course information page.
7. The system provides a course information into the mobile application which are course name, credit, description, lecturer name, a list of students in the course.

# **URS2-9. Lecturer can assign assignments or quizzes which are multiple choices question, true/false question, and short answers.**

Lecturer can assign assignments or quizzes into the mobile application. Lecturer can limit access to the assignment or quiz of authority. Lecturer must provide type of testing, an amount of questions, type of question, question information, student name, randomize order of the question status, and posting status.

Lecturer must provide question information by separating from type of questions.

* Lecturer can assign multiple choices questions which provide type of question, question description, choice description, and an answer.
* Lecturer can assign true/false questions which provide type of question, questions description, choice description, and an answer.
* Lecturer can assign short answers which provide type of question, questions description.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of testing | The system provides two types of testing which are assignment and quiz. Lecturer must select one type only. | Assignment |  |
| amount of question | Only number is allowed. | 3 |  |
| student name | Lecturer adds a list of students for limiting access to the assignment or quiz. | 542115099, 542115091 |  |
| randomize order of the question status | This status is showing status of random order of the question to student. | random |  |
| Posting status | Status is an available and not available. | available |  |

Multiple choices question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | Multiple choices |  |
| question description | Can be any character is allowed. | What is an answer of 1+1? |  |
| choice description | Choices must have four choices. Can be any character is allowed. | a. 2 b. 1 c. 3 d. 5 |  |
| answer | Only “a, b, c, d” is allowed. | a |  |

True/false question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | True/false question |  |
| question description | Can be any character is allowed. | Answer of 1+1 is 2. |  |
| choice description | Choices must have two choices. Can be true and false is allowed. | a. false  b. true |  |
| answer | Only “a, b, c, d” is allowed. | b |  |

Short answer

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | Short answer |  |
| question description | Can be any character is allowed. | What is an answer of 1+1? You must explain how to find the answer. |  |

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer submits adding testing form.
10. The system redirects to the testing management page.
11. Lecturer provides type of testing, an amount of questions, student name, randomize order of the question status, and posting status into the testing page.
12. Lecturer submits testing information into mobile application.
13. The system validates testing information from Lecturer.
14. The system redirects to the assigning assignment and quiz page.
15. Lecturer provides type of question (Multiple choices), question description, choice description, and an answer.
16. Lecturer submits assignment or quiz information into mobile application.
17. The system validates testing information from Lecturer.
18. The system redirects to the assigning assignment and quiz in a next page until last page. Flow of execution resumes to step 13
19. The system redirects to the overview testing page.
20. Lecturer submit creating testing form.
21. The system display “Creating Assignment Successful” message.
22. The system redirects to the Course main page.

**Alternative Flow:**

13A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + The wrong amount of questions format: The error message is “Amount of questions must be number only”

15A. Lecturer provides type of question is true/false question.

1. Lecturer provides question description, choice description, and an answer.
2. Lecturer submits assignment or quiz information into mobile application.
3. The system validates testing information from Lecturer.
4. Flow of execution resumes to step 16.

15B. Lecturer provides type of question is short answer.

1. Lecturer provides question description.
2. Lecturer submits assignment or quiz information into mobile application.
3. The system validates testing information from Lecturer.
4. Flow of execution resumes to step 16.

13A 3A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + - The wrong answer format: The error message is “Answer must be a, b, c, and d only”

17A if Lecturer input data in the wrong format in multiple choices question the system should provide the error message as followed:

* + The wrong answer format: The error message is “Answer must be a, b, c, and d only”

21A if Lecturer creates a quiz is completed, the system should provide the Successful massage as followed:

* + The system display “Creating Quiz Successful” message.

# **URS2-10. Lecturer can edit assignments or quizzes information which are multiple choices question, true/false question, and short answers.**

Lecturer can edit assignments or quizzes information into the mobile application. Lecturer can limit access to the assignment or quiz of authority. Lecturer must provide type of testing, an amount of questions, type of question, question information, student name, randomize order of the question status, and posting status.

Lecturer must provide question information by separating from type of questions.

* Lecturer can edit multiple choices questions which provide type of question, question description, choice description, and an answer.
* Lecturer can edit true/false questions which provide type of question, questions description, choice description, and an answer.
* Lecturer can edit short answers which provide type of question, questions description.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:**

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of testing | The system provides two types of testing which are assignment and quiz. Lecturer must select one type only. | Assignment |  |
| amount of question | Only number is allowed. | 3 |  |
| student name | Lecturer adds a list of students for limiting access to the assignment or quiz. | 542115099, 542115091,  542115092 |  |
| randomize order of the question status | This status is showing status of random order of the question to student. | random |  |
| Posting status | Status is an available and not available. | Available |  |

Multiple choices question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | Multiple choices |  |
| question description | Can be any character is allowed. | What is an answer of 1+1? |  |
| choice description | Choices must have four choices. Can be any character is allowed. | a. 2 b. 1 c. 3 d. 5 |  |
| answer | Only “a, b, c, d” is allowed. | a |  |

True/false question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | True/false question |  |
| question description | Can be any character is allowed. | Answer of 1+1 is 2. |  |
| choice description | Choices must have two choices. Can be true and false is allowed. | a. false  b. true |  |
| answer | Only “a, b, c, d” is allowed. | b |  |

Short answer

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| type of question | The system provides three types of question which are multiple choices, true/false question, and short answer. Lecturer must select one type only. | Short answer |  |
| question description | Can be any character is allowed. | What is an answer of 1+1? You must explain how to find the answer. |  |

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer select a testing that want to edit.
10. Lecturer submits editing testing form.
11. Lecturer provides type of testing, an amount of questions, student name, randomize order of the question status, and posting status into the testing page.
12. Lecturer submits testing information into mobile application.
13. The system validates testing information from Lecturer.
14. The system redirects to the assigning assignment and quiz page.
15. Lecturer provides type of question (Multiple choices), question description, choice description, and an answer.
16. Lecturer submits assignment or quiz information into mobile application.
17. The system validates testing information from Lecturer.
18. The system redirects to the assigning assignment and quiz in a next page until last page. Flow of execution resumes to step 15
19. The system redirects to the overview testing page.
20. Lecturer submit editing testing form.
21. The system display “Editing Assignment Successful” message.
22. The system redirects to the Course main page.

**Alternative Flow:**

13A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + The wrong amount of questions format: The error message is “Amount of questions must be number only”

15A. Lecturer provides type of question is true/false question.

1. Lecturer provides question description, choice description, and an answer.
2. Lecturer submits assignment or quiz information into mobile application.
3. The system validates testing information from Lecturer.
4. Flow of execution resumes to step 16.

15B. Lecturer provides type of question is short answer.

1. Lecturer provides question description.
2. Lecturer submits assignment or quiz information into mobile application.
3. The system validates testing information from Lecturer.
4. Flow of execution resumes to step 16.

15A 3A. if Lecturer input data in the wrong format, the system should provide the error message as followed:

* + - The wrong answer format: The error message is “Answer must be a, b, c, and d only”

17A if Lecturer input data in the wrong format in multiple choices question the system should provide the error message as followed:

* + The wrong answer format: The error message is “Answer must be a, b, c, and d only”

21A if Lecturer edits a quiz is completed, the system should provide the Successful massage as followed:

* + The system display “Editing Quiz Successful” message.

# **URS2-11. Lecturer can delete assignments or quizzes which are multiple choices question, true/false question, and short answers.**

Lecturer can delete assignments or quizzes into the mobile application.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer select a testing that want to delete.
10. Lecturer submits deleting testing form.
11. The system display “Deleting Assignment Successful” message.
12. The system redirects to the overall testing page.

# **URS2-12. Lecturer can review overall student’s answer in each choice of assignment or quiz in chart format.**

Lecturer can review overall student’s answer in each choice of assignment or quiz in chart format into the mobile application. Which Lecturer can analyze thinking of students in decision choose answers.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer select a testing that want to review overall student’s answer in each choice of assignment or quiz in chart format.
10. Lecturer submits chart format of student’s answer form.
11. The system redirects to the chart format of student’s answer page.

# **URS2-13. Lecturer can check whether the assignments are submitted in time.**

Lecturer can check whether who submitted an assignment or quiz in time into the mobile application. Also, who didn’t submit an assignment or quiz in time.

**Actor:** Lecturer

**Prerequisite:** Lecturer must have logged**.**

## **Input:** None

## **Flow of Execution:**

1. Lecturer enters the Lecturer main page.
2. Lecturer enters the Course management page.
3. The system provides all courses name which were taught by Lecturer.
4. Lecturer selects a course that want to view.
5. Lecturer submits viewing course form.
6. The system redirects to the Course main page.
7. Lecturer submits overall testing form.
8. The system redirects to the overall testing page.
9. Lecturer select a testing that want to check students that submit assignments in time.
10. Lecturer submit assignment status form.
11. The system redirects to the chart format of student’s answer page.

# **URS2-14. Student can take assignments or quizzes which are multiple choices, true/false questions, short answers.**

Student can take assignments or quizzes which are multiple choices, true/false questions, short answers by using mobile application.

Student must provide answer information by separating from type of questions.

* Student can take multiple choices questions which provide one answer only in each order of questions.
* Student can take true/false questions which provide one answer only in each order of questions.
* Student can take short answers which provide characters or texts.

**Actor:** Student

**Prerequisite:** Student must have logged**.**

## **Input:**

Multiple choices question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| multiple choices answer | Only “a, b, c, d” is allowed. | a |  |

True/false question

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| true/false answer | Only “a, b, c, d” is allowed. | b |  |

Short answer

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Description | Example | Remarks |
| short answer | Can be any character is allowed. | From the picture is a dog. |  |

## **Flow of Execution:**

1. Student enters the Student main page.
2. Student enters the Overall course page.
3. The system provides all courses name which were studied by Student.
4. Student selects a course that want to view.
5. Student submits viewing course form.
6. The system redirects to the Course main page.
7. Student submits overall testing form.
8. The system redirects to the overall testing page.
9. Student select a testing that want to take an assignment or quiz.
10. Student submit taking assignment or quiz form.
11. The system redirects assignment or quiz page.
12. Student provides answers in every question.
13. Student submit answers.
14. The system redirects to overall testing page.