

VALIDATION TESTING: ACCEPTANCE TEST

Conducted Sprint 4

FEATURE: As Professor Ben, I want to add students to a course.

TEST: Adding Students to a course.

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Scroll below to list of students and enter values for the fields under 'First Name', 'Last Name', 'UTORID', and 'Password' fields.
3. Click the 'Add Student' Button.

Value for UTORID	Expected Output
UTORID that exists in the table above	No change to table
UTORID that doesn't exist in the table above	Row appended to the bottom of the table with values: UTORID, First Name, Last Name, as inputted by user

TEST: Viewing Students enrolled in a course.

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.

Expected Output: A list of enrolled students in a table with columns titled: 'UTORID', 'First Name', and 'Last Name'

FEATURE: As Professor Sophie, I want to add a problem set with a due-date to a unit

TEST: Adding a problem set with non-empty questions

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the new problem set page by clicking 'New Problem Set' on the navigation bar.

Expected Output:

- 'New Problem Set' is highlighted in the navigation bar.
- Selector for Unit ID.
- Text field for Problem Set Name.
- Text field for Due Date.
- Button for 'Add Question.'

- Button for 'Add Problem Set.'
3. Click on Unit ID selector
Expected Output:
 - Dropdown of available units to choose from.
 - Format of options for Units: '[unit id] : [unit name]'.
 4. Input a value into Problem Set Name text field.
 5. Input a value into Date Due text field.
 6. Input a value for Question 1 text field.
 7. Input a value for Answer 1 text field.
 8. Click 'Add Question' button.
Expected Output:
 - New text field 'Question 2' under 'Answer 1.'
 - New text field 'Answer 2' under 'Question 2.'
 9. Input a value for Question 1 text field.
 10. Input a value for Answer 1 text field.
 11. Click 'Add Problem Set' button

Expected Output: Problem set is stored into the database. You may check that the data is saved by navigating to 'Problem Sets' on the menu and looking at the last entry under the unit the problem set was inserted into. Click 'View' to see both two questions and answers were stored, and thus displayed on this page.

TEST: Adding a problem set with one empty question

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the new problem set page by clicking 'New Problem Set' on the navigation bar.

Expected Output:

- Selector for Unit ID.
 - Text field for Problem Set Name.
 - Text field for Due Date.
 - Button for 'Add Question.'
 - Button for 'Add Problem Set.'
3. Click on Unit ID selector
Expected Output:
 - Dropdown of available units to choose from.
 - Format of options for Units: '[unit id] : [unit name]'.
 4. Input a value into Problem Set Name text field.
 5. Input a value into Date Due text field.
 6. Input a value for Question 1 text field.
 7. Input a value for Answer 1 text field.
 8. Click 'Add Question' button.

Expected Output:

- New text field 'Question 2' under 'Answer 1.'
 - New text field 'Answer 2' under 'Question 2.'
9. Click 'Add Problem Set' button

Expected Output: Problem set is stored into the database. You may check that the data is saved by navigating to 'Problem Sets' on the menu and looking at the last entry under the unit the problem set was inserted into. Click 'View' to see that the first question and answer pairs were stored, and thus displayed on this page.

FEATURE: As Professor Sophie, I want to see the list of Problem Sets for my course

TEST: Viewing stored problem sets as a list

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.

Expected Output:

- 'Problem Sets' in the navigation bar is active (highlighted as current page).
- All units are listed as headers.
- There is a table of problem sets under each unit, and each table has columns titled: 'Problem Set ID', 'Subject', 'DateDue', and 'View'.
- Each problem set is displayed with their respective ID, subject, due date, and a view button.

TEST: Adding a new problem set and viewing it's information on the problem sets page

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the new problem set page by clicking 'New Problem Set' on the navigation bar.
3. Fill in all the available text fields with some data.
4. Click 'Add Problem Set.'
5. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.

Expected Output:

- 'Problem Set' in the navigation bar is active (highlighted as current page).
- All units are listed as headers.
- There is a table of problem sets under each unit, and each table has columns titled: 'Problem Set ID', 'Subject', 'DateDue', and 'View'.
- Each problem set is displayed with their respective ID, subject, due date, and a view button.

- The newly added problem set is displayed as the last row in the problem set table corresponding to its unit.

FEATURE: As Professor Sophie, I want to view a Problem Set from the list of Problem Sets.

TEST: Viewing an arbitrary single problem set.

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.
3. Select a problem set from the list (example: first problem set listed under the first unit listed), and click 'View' button.

Expected Output:

- 'Problem Sets' in the navigation bar is active (highlighted as current page).
- A header 'Viewing Problem Set [ID]' is displayed, including the ID of the problem set that was selected.
- A list of question and answer text boxed that correspond to that problem set, listed in sequential order.

TEST: Adding a new problem set and viewing it's questions and answers.

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the new problem set page by clicking 'New Problem Set' on the navigation bar.
3. Fill in all the available text fields with some data.
4. Click 'Add Problem Set.'
5. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.
6. Select the problem set that was just added, and click the 'View' button.

Expected Output:

- 'Problem Sets' in the navigation bar is active (highlighted as current page).
- A header 'Viewing Problem Set [ID]' is displayed, including the ID of the problem set that was selected.
- A list of question and answer text boxed that correspond to that problem set, listed in sequential order.

FEATURE: As Student Sonja, I want to view a list of Problem Sets.

TEST: Viewing stored problem sets as a list

PROCEDURE:

1. Enter 'utorid' in Username field.
2. Enter 'password' in Password field.
3. Log in by clicking 'Student' button.

Value for Username	Value for Password	Expected Output
utorid	password	Logged into the system, and redirected to a page with a list of problem sets. UTORID of student logged in is displayed on the navigation bar.
utorid	wrong	Remain on the log in page.

4. On successful log in, redirect to a page with a list of problem sets.

Expected Output:

- UTORID of student logged in is displayed on the navigation bar.
- 'Problem Sets' in the navigation bar is active (highlighted as current page).
- All units are listed as headers.
- There is a table of problem sets under each unit, and each table has columns titled: 'Problem Set ID', 'Subject', 'DateDue', and 'View'.
- Each problem set is displayed with their respective ID, subject, due date, and a view button.

FEATURE: As Student Sonja, I want to answer problem sets through the application, so that I can see the correct solutions.

TEST: Answering a problem set

PROCEDURE:

1. Enter 'utorid' in Username field.
2. Enter 'password' in Password field.
3. Log in by clicking 'Student' button.
4. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.
5. Click 'View' to view a single problem set (Click on problem set with ID = 1, and name = 'Trigonometric Differentiation')

Expected Output:

- A header 'Viewing Problem Set [ID],' including the problem set ID of the selected problem set.
- Two questions displayed on the page, each with an answer field under it.
- A 'Submit' button under the list of questions.

- A table under the 'Submit' button with columns titled: 'Your Answer', 'Correct Answer', 'Result.'

Viewing Problem Set 1

Question 1

Trigonometric Differentiation Basics : This is the first question

Answer

Question 2

Advanced Topics: This is the second question

Answer

6. Input a value for Answer 1 text field.
7. Input a value for Answer 2 text field.
8. Click 'Submit' button.

Value for Answer 1	Value for Answer 2	Expected Output												
ANSWER	ANSWER	<ul style="list-style-type: none"> • Two new rows added to the table for comparing answers. <table border="1"> <thead> <tr> <th colspan="3">Submit</th></tr> <tr> <th>Your Answer</th><th>Correct Answer</th><th>Result</th></tr> </thead> <tbody> <tr> <td>ANSWER</td><td>ANSWER</td><td>correct</td></tr> <tr> <td>WRONG</td><td>ANSWER</td><td>incorrect</td></tr> </tbody> </table>	Submit			Your Answer	Correct Answer	Result	ANSWER	ANSWER	correct	WRONG	ANSWER	incorrect
Submit														
Your Answer	Correct Answer	Result												
ANSWER	ANSWER	correct												
WRONG	ANSWER	incorrect												
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Submit														
Your Answer	Correct Answer	Result												
ANSWER	ANSWER	correct												
WRONG	ANSWER	incorrect												

FEATURE: As Professor Ben, I want to see the performance of a student, by viewing the grades for each problem set for a single student.

TEST: View all grades for problem set with ID=1, and subject='Trigonometric Differentiation.'

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.
3. Click 'View' button for problem set with ID=1, and subject='Trigonometric Differentiation.'

UTORID	Recent Score	Highest Score
1	100%	100%
petcuamand	0%	100%
utorid	0%	100%
[Everything else]	0%	0%

TEST: Creating new student, who attempts the problem set. View all grades for problem set with ID=1, and subject='Trigonometric Differentiation.'

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Scroll below to list of students and enter values for the fields under 'First Name', 'Last Name', 'UTORID', and 'Password' fields.
3. Click the 'Add Student' Button.
4. Click 'WebWork-Professor' on the navigation bar to navigate back to the log-in page.
5. Enter the credentials of the student just added to the Username and Password fields, and click 'Student' button to log in.
6. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.
7. Click 'View' button for problem set with ID=1, and subject='Trigonometric Differentiation.'
8. Input a value 'ANSWER' for Answer 1 text field.
9. Input a value for 'ANSWER' Answer 2 text field.
10. Click 'Submit' button.
11. Click 'WebWork' on the navigation bar to navigate back to the log-in page.
12. Log in as a professor by clicking 'Professor' button in the homepage.
13. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.
14. Click 'View' button for problem set with ID=1, and subject='Trigonometric Differentiation.'

UTORID	Recent Score	Highest Score
1	100%	100%
petcuamand	0%	100%
utorid	0%	100%
[new utorid]	100%	100%
[Everything else]	0%	0%

FEATURE: As Professor Ben, I want to see the performance of the class for a problem set, by seeing the list of students' grades (most recent, and highest scores) for a single problem set.

TEST: Answering a problem set

PROCEDURE:

9. Enter 'utorid' in Username field.
10. Enter 'password' in Password field.
11. Log in by clicking 'Student' button.
12. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.
13. Click 'View' to view a single problem set (Click on problem set with ID = 1, and name = 'Trigonometric Differentiation')

Expected Output:

- A header 'Viewing Problem Set [ID],' including the problem set ID of the selected problem set.
- Two questions displayed on the page, each with an answer field under it.
- A 'Submit' button under the list of questions.

FEATURE: As Professor Ben, I want to create a unit. (A unit is defined as a chapter in the course and a problem set is a generated set of similar problems.)

TEST: Adding a Unit

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the new problem set page by clicking 'New Problem Set' on the navigation bar.
3. Input a value into the field with 'Unit ID'
4. Click 'Add Unit' button

Expected Output:

- Unit is added into the database.
- You can check that the change is updated by looking at the Unit selector and checking if I is one of the options.

FEATURE: As Professor Sophie, I want to see the average for each problem set.

TEST: Looking at the averages for all problem sets.

PROCEDURE:

1. Log in as a professor by clicking 'Professor' button in the homepage.
2. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.

Expected Output:

- 'Problem Set' in the navigation bar is active (highlighted as current page).
- All units are listed as headers.
- There is a table of problem sets under each unit, and each table has columns titled: 'Problem Set ID', 'Subject', 'DateDue', 'Recent Avg', 'Highest Avg' and 'View'.
- Each problem set is displayed with their respective ID, subject, due date, recent score averages, highest score averages, and a view button.

FEATURE: As Student Sonja, I want to see the average for each problem set.

TEST: Looking at the averages for all problem sets.

PROCEDURE:

1. Enter 'utorid' in Username field.
2. Enter 'password' in Password field.
3. Log in by clicking 'Student' button.
4. Navigate to the page with a list of problem sets by clicking 'Problem Sets' on the navigation bar.

Expected Output:

- 'Problem Set' in the navigation bar is active (highlighted as current page).
- All units are listed as headers.
- There is a table of problem sets under each unit, and each table has columns titled: 'Problem Set ID', 'Subject', 'DateDue', 'Recent Avg', 'Highest Avg' and 'View'.
- Each problem set is displayed with their respective ID, subject, due date, recent score averages, highest score averages, and a view button.