

1. As Jane, a professor, I would like to create a Homework question set comprised of a sequence of questions containing only simple text
  - a. Enter “python3 question\_type\_select.py” into terminal to open the file
  - b. Select multiple choice as answer type
  - c. Enter “1” as number of questions to create
  - d. Enter “Dec 31 2017” as due date for the question
  - e. Press Create button
  - f. Enter “How is your day” in the text field beside Question Body
  - g. Enter “Good” “Average” “Bad” respectively for the possible incorrect answer
  - h. Enter “Amazing” under correct answer
  - i. Leave auto-generate answers and enable question feedback checkboxes unchecked
  - j. Click on the save and finalize set button
  - k. Type in “test” as the filename to save as, and click accept and save
  - l. Click ok on the confirmation button

If the steps were executed correctly, you should be back at the screen at step b) with the question set file created.

2. As Amal, a student, I would like to be presented with a list of all homework question sets

- a. Enter “python3 student\_question\_set.py” into terminal to open the file

If the steps were executed correctly, you should see a list of questions sets in a grid on the screen with the names of the leftmost column, various information about each question set in the middle few columns, and an attempt button on the far right.

3. As Johnson, a student, I want to be able to select a Homework question set from a list, and then be presented with the sequence of questions created for that set, one-by-one
  - a. Open student\_question\_set.py file
  - b. From grid locate the right button which allows user to attempt question set
  - c. Click on this button
  - d. Verify it opens a new window
  - e. Verify this new window contains information from the corresponding named Question set file

4. As Johnson, a student, I want to be able to answer a Homework question I have been presented with by selecting one of many pre selected answers given to me and then submitting this answer.

- a. Open student\_question\_set.py file
  - b. Click on one of the right most buttons to attempt a set
  - c. Verify from the resulting screen that each of the buttons are clickable
  - d. Verify from the resulting screen that the correct answer lines up with the specified correct answer as expected
  - e. Submit a final answer by clicking on one of the buttons
  - f. Verify a popup appears telling the user whether the answer was correct
  - g. Verify the program then proceeds to the next question

5. As Johnson, a student, I want the question set list to display whether or not I have taken a Homework set along with my previous and highest % marked attempts on that set
  - a. Open student\_question\_set.py file
  - b. Verify that there is a column for % mark
  - c. Verify that the %mark column is empty for sets never attempted before
  - d. Verify that sets which have been attempted properly remember the highest % grade
6. As Amal, a student, I want to be prompted to retake an entire Homework question set upon completing it so that I can practice more and improve my grade
  - a. Open student\_question\_set.py file
  - b. User rightmost button to attempt one of the sets.
  - c. Answer through all questions as normal using submit buttons.
  - d. Verify that at the end, user receives a prompt to try again
  - e. Clicking no should redirect to main grid. Yes should restart the question set
7. As Amal, a student, I want to be able to save my progress in a question set so that I can later on resume the question set from the same state as when it was saved
  - a. Open student\_question\_set.py file
  - b. Use rightmost button to attempt one of the sets.
  - c. Verify that there exists a save progress button in the resulting popup window
  - d. Answer through some questions as normal using submit buttons.
  - e. Click save progress button and accept
  - f. Verify user is now placed back on question grid menu
  - g. Try to attempt the set which was just attempted
  - h. Verify this causes a prompt to appear asking if the user wants to resume a previous session or start again
  - i. Answer that you want to resume and verify that the user is correctly placed at the question they left off at
  - j. Go through the rest of the question set and return to main grid menu
  - k. Verify that this prompt does not appear for question sets which do not have saved progress
8. As Amal, a student, I want to be able to receive textual feedback from the application if I answer a question incorrectly which concisely explains why my answer was wrong and what the correct answer was
  - a. Open question\_type\_select.py file
  - b. Select multiple choice, fill out required fields and click create
  - c. Verify that, on the question creation screen there is an option to specify feedback which should be displayed upon wrong answers
  - d. Verify there also exists a checkbox to toggle this feature on and off
  - e. Fill out each question in the set with any value and save the file as 'test'
  - f. Open student\_question\_set.py file
  - g. Use rightmost button to attempt the question set 'test'.
  - h. Click on a wrong answer and verify the instant feedback window appears
9. As George, a professor, I would like for there to be system defined rules that prevent students from creating, deleting or modifying existing questions sets by requiring a login
  - a. Open login\_windows.py file

- b. Select login as Instructor
  - c. Click login without entering anything in username or password
  - d. Verify a message box appears warning of the invalid username and check that no runtime errors are produced
  - e. Enter username: "Foo" and password "Bar"
  - f. Click login and verify it still warns that the user does not exist (make sure no such user exists beforehand)
  - g. With the same username and password, click register
  - h. Verify that a popup window informs the user that they have now been registered
  - i. Using same username but with password "baz", click login again.
  - j. Verify that a popup window tells the user that the password was not correct.
  - k. Using once again username "Foo" and password "Bar" click login button
  - l. Verify that this time the user logs in successfully and is redirected to the correct page for their user type.
  - m. Repeat steps b. through l. for the student user type. Use a different username and password combination
  - n. Verify that using instructor login credentials on the student login does not work
  - o. Verify that using student login credentials on the instructor login does not work
10. As Johnson, a student, I want to be able to see additional information (number of questions, due date, highest mark, and status) in a question set
- a. Open student\_question\_set.py file
  - b. Examine the grid and ensure the following columns exist and display correct information
    - i. Number of questions
    - ii. Due date
    - iii. Highest mark
    - iv. Status (has been taken or not)
14. As Jane, a professor, I want to be able to give an existing Homework question set a customized name which I can type in and specify myself
- A. Open question\_type\_select.py file
  - B. Select multiple choice as question type and fill required fields
  - C. Click create
  - D. Go through the question set creation process as normal, specific values do not matter
  - E. Finalize the question set
  - F. Verify the user is prompted for a filename
  - G. Enter file name "TestSet" and save
  - H. Open student\_question\_set.py file
  - I. Verify that the student user is able to see a new question set called "TestSet"