

Teacher Login Feature

| | | | |
|----------------|--|---|---|
| Feature | Player should be able to login and enter the Teacher's view | | |
| <i>Input</i> | Keyboard and Mouse inputs | P | F |
| <i>Tests</i> | Check username input is in database | X | |
| | Check password input correlates to username and is in database | X | |
| | Check if username is a Char string | X | |
| | Check if scene changes to Teacher's view | X | |
| <i>Output</i> | If the player's scene is what's expected, test passed; otherwise, the test failed. | | |

Student Login Feature

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|----------------|--|---|---|
| Feature | Player should be able to login and enter the Student's view | | |
| <i>Input</i> | Keyboard inputs | P | F |
| <i>Tests</i> | Keyboard and Mouse inputs | X | |
| | Check username input is in database | X | |
| | Check password input correlates to username and is in database | X | |
| | Check if username is a Integer | X | |
| <i>Output</i> | If the player's scene is what's expected, test passed; otherwise, the test failed. | | |

Answer Question Feature

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|----------------|---|---|---|
| Feature | Player should answer questions on the screen | | |
| <i>Input</i> | Mouse inputs | P | F |
| | Check if answer is selected | X | |
| | Check if question disappears from player's view | X | |
| <i>Output</i> | If the player's answer is what's expected, test passed; otherwise, the test failed. | | |

Add Curriculum Feature

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|----------------|--|---|---|
| Feature | Player should add new problems and answers to the database | | |
| <i>Input</i> | Mouse and Keyboard inputs | P | F |
| <i>Tests</i> | Check if Question is entered | X | |
| | Check if Answer is entered | X | |
| | Check if Programming language is selected | X | |
| | Check if Difficulty is selected | X | |
| | Check if Add Problem Button is selected | X | |
| <i>Output</i> | If the player's expected question and answer are in database, test passed; otherwise, the test failed. | | |

Edit Curriculum Feature

| Feature | Player should edit a question and save the edits | | |
|----------------|--|---|---|
| <i>Input</i> | Mouse and Keyboard inputs | P | F |
| <i>Tests</i> | Check if the correct question was selected | X | |
| | Check if the question is editable | X | |
| | Check if the answer if editable | X | |
| | Check if the question and answer are saved in the database | X | |
| <i>Output</i> | If the player's edits were saved in the database, test passed; otherwise, the test failed. | | |

Student Progress Feature

| Feature | Player should view student's progress | | |
|----------------|--|---|---|
| <i>Input</i> | Mouse inputs | P | F |
| <i>Tests</i> | Check if student's Java progress is scrollable | X | |
| | Check if student's Python progress is scrollable | X | |
| <i>Output</i> | If the student's progress is what's expected, test passed; otherwise, the test failed. | | |

Select Student Feature

| Feature | Player should select student to view progress | | |
|----------------|--|---|---|
| <i>Input</i> | Mouse inputs | P | F |
| <i>Tests</i> | Check if student list is viewable | X | |
| | Check if student is selected from list | X | |
| | Check if student progress scene is reached | X | |
| <i>Output</i> | If the player's selection is what's expected, test passed; otherwise, the test failed. | | |

Walking Feature

| Feature | Character Should Walk on Horizontal-Axis | | |
|----------------|---|---|---|
| Input | Mouse inputs | P | F |
| Tests | Check which key is pressed | X | |
| | Check when A or Left direction key is pressed, and the character moves to the left. | X | |
| | Check when S or Down direction key is pressed, and the character moves down. | X | |
| | Check when D or Right direction key is pressed, and the character moves to the Right. | X | |
| | Check when W or Up direction key is pressed, and the character moves to the left. | X | |
| | Check the other keys do not move the character. | X | |
| | Check if the character collides with the screen boundaries. | X | |
| Output | If the player's positions are what's expected, test passed; otherwise, the test failed. | | |

Question Feature

| Feature | Player should answer questions on the screen | | |
|----------------|--|---|---|
| Input | Mouse inputs | P | F |
| Tests | Check if player collides with the 'treasures' | X | |
| | Check if question is viewable | X | |
| | Check if answers are viewable | X | |
| Output | If the question is what's expected, test passed; otherwise, the test failed. | | |

Results Feature

| Feature | Player should see their results from the game | | |
|----------------|---|---|---|
| Input | GameManager.cs inputs | P | F |
| Tests | Check player's selected answer is stored in GameManager | X | |
| | Check player's questions is stored in GameManager | X | |
| | Check question's explanation is stored in GameManager | X | |
| | Check questions correct answer is stored in GameManager | X | |
| | Check results are scrollable | X | |
| Output | If the player's results are what's expected, test passed; otherwise, the test failed. | | |

***Testing Format (Rosenfield Boeira, 2017).**

References

Rosenfield Boeira, J. (2017). An Inception in Practice. In J. Rosenfield Boeira, *Lean Game Development : Apply Lean Frameworks to the Process of Game Development* (pp. 23-32). Berkeley, CA: Apress.