

Integration Testing Plan/Results for setting a value in a puzzle cell

| Test description | Setup | Expected result | Actual Result |
|---|---|--|---------------|
| Set an illegal value to a legal location | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Set (illegal) value to be added Select (legal) location to be changed Run gameEngine.SetValue(row, col) Print out puzzle | <ul style="list-style-type: none"> No crash No change to puzzle | |
| Set a legal value to an illegal (out of range) location | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Set (legal) value to be added Select (illegal) location to be changed Run gameEngine.SetValue(row, col) Print out puzzle | <ul style="list-style-type: none"> No crash No change to puzzle | |
| Set a legal value to a legal location | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Set (legal) value to be added Select (legal) location to be changed Run gameEngine.SetValue(row, col) Print out puzzle | <ul style="list-style-type: none"> Value added will be shown in the selected location on puzzle | |
| Set a legal value to a hard-wired location | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Set (legal) value to be added Select (hard-wired) location to be changed Run gameEngine.SetValue(row, col) Print out puzzle | <ul style="list-style-type: none"> No crash No change to puzzle | |

Integration Testing Plan/Results for setting a note in a puzzle cell

| Test description | Setup | Expected result | Actual Result |
|---|---|---|---------------|
| Set an illegal note to a legal location | <ul style="list-style-type: none"> • Create Puzzle, GameEngine • Select (legal) location to be changed • Print out cell note • Set (illegal) note to be added • Run gameEngine.SetNote(row, col) • Print out cell note | <ul style="list-style-type: none"> • No crash • No change to puzzle | |
| Set a legal note to a legal location | <ul style="list-style-type: none"> • Create Puzzle, GameEngine • Select (legal) location to be changed • Print out cell note • Set (legal) note to be added • Run gameEngine.SetNote(row, col) • Print out cell note | <ul style="list-style-type: none"> • Note added to the selected cell | |
| Set a legal note to a hard-wired location | <ul style="list-style-type: none"> • Create Puzzle, GameEngine • Select (hard-wired) location to be changed • Print cell note • Set (legal) note to be added • Run gameEngine.SetNote(row, col) • Print cell note | <ul style="list-style-type: none"> • No crash • No change to puzzle | |
| Add a note to a cell with existing note | <ul style="list-style-type: none"> • Create Puzzle, GameEngine • Select cell to be changed • Print out cell note • Set note to be added • Run gameEngine.SetNote(row, col) • Print out cell note • Set note to be added • Run gameEngine.SetNote(row, col) • Print out cell note | <ul style="list-style-type: none"> • Note added to the selected cell | |

Integration Testing Plan/Results for undoing moves

| Test description | Setup | Expected result | Actual Result |
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| Undo when no move has been made | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Run gameEngine.Undo(row, col) Print out puzzle | <ul style="list-style-type: none"> No crash No change to puzzle | |
| Undo setting a value in a puzzle cell | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Set value in a cell Print out puzzle Run gameEngine.Undo(row, col) Print out puzzle | <ul style="list-style-type: none"> No change to puzzle | |
| Undo setting a note in a puzzle cell | <ul style="list-style-type: none"> Create Puzzle, GameEngine Select cell location to be changed Print out cell note Set note to a selected cell Print out cell note Run gameEngine.Undo(row, col) Print out cell note | <ul style="list-style-type: none"> No change to puzzle/ selected cell | |
| Undo until correct with only correct moves | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Set correct values in 2 cells Print out puzzle Run gameEngine.UndoUntilCorrect(row, col) Print out puzzle | <ul style="list-style-type: none"> 2 values added will be shown on puzzle | |
| Undo until correct with only false moves | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Set false values in 2 cells Print out puzzle Run gameEngine.UndoUntilCorrect(row, col) Print out puzzle | <ul style="list-style-type: none"> No change to puzzle | |
| Undo until correct with false moves and setting notes | <ul style="list-style-type: none"> Create Puzzle, GameEngine Print out puzzle Set false values in 2 cells Print out puzzle Set a note Print out cell note | <ul style="list-style-type: none"> No change to puzzle/ selected cells | |

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| | <ul style="list-style-type: none"> • Run gameEngine.UndoUntilCorrect(row, col) • Print out puzzle • Print out cell note | | |
| Undo until correct with correct and false moves | <ul style="list-style-type: none"> • Create Puzzle, GameEngine • Print out puzzle • Set correct values in 2 cells • Set false values in 2 cells • Print out puzzle • Run gameEngine.UndoUntilCorrect(row, col) • Print out puzzle | <ul style="list-style-type: none"> • 2 correct values will be shown on puzzle | |
| Undo until correct with false and correct moves | <ul style="list-style-type: none"> • Create Puzzle, GameEngine • Print out puzzle • Set false values in 2 cells • Set correct values in 2 cells • Print out puzzle • Run gameEngine.UndoUntilCorrect(row, col) • Print out puzzle | <ul style="list-style-type: none"> • No change to puzzle | |