System Test Plan: Guessing Game program

You will provide an integer value to be used as a seed for the random generator when testing. Below are the secret code digits for several different seeds that you can use in your tests.

Seed: 1 Secret Code: 5 8 7 3
Seed: 5 Secret Code: 7 2 4 4
Seed: 22 Secret Code: 2 0 2 1
Seed: 55 Secret Code: 5 9 9 9

NOTE: You can stop program execution by pressing Ctrl+C.

Test ID	Description	Expected Results	Actual Results

testTooManyCommandLineArguments
 	
Author: Dr. Balik
	`$ java -cp bin GuessingGame abc 123`	`Usage: java -cp bin GuessingGame <seed>`
		
		`<Program exits>`
			`Usage: java -cp bin GuessingGame <seed>`
			
			`<Program exits>`

testNonintegerCommandLineArgument
 	
Author: Dr. Balik
	`$ java -cp bin GuessingGame  abc`	`Usage: java -cp bin GuessingGame <seed>`
		
		`<Program exits>`
			`Usage: java -cp bin GuessingGame <seed>`
			
			`<Program exits>`

testNonintegerGuess
 	
Author: Dr. Balik
	`$ java -cp bin GuessingGame 1`
	
	`<<Header>>`
	
	`Guess 4 digits (e.g., 2 8 5 8):` **`7 8 xy 9`**
		`Invalid guess`
		
		`Guess 4 digits (e.g., 2 8 5 8):`
			`Invalid guess`
			
			`Guess 4 digits (e.g., 2 8 5 8):`

testInvalidIntegerGuess
 	
Author: Dr. Balik
	`$ java -cp bin GuessingGame 1`
	
	`<<Header>>`
	
	`Guess 4 digits (e.g., 2 8 5 8):` **`9 12 0 8`**
		`Invalid guess`
		
		`Guess 4 digits (e.g., 2 8 5 8):`
			`Invalid guess`
			
			`Guess 4 digits (e.g., 2 8 5 8):`

testOneCorrectDigitIncorrectPlace	`$ java -cp bin GuessingGame 1`
	
	`<<Header>>`
		`Guess  | CD CP`
		`8 6 4 1 |  1  0`
			`Guess  | CD CP`
			`8 6 4 1 |  1  0`

Author: Dr. Balik	Guess 4 digits (e.g., 2 8 5 8): **8 6 4 1**	Guess 4 digits (e.g., 2 8 5 8):	Guess 4 digits (e.g., 2 8 5 8):
Test ID	**Description**	**Expected Results**	**Actual Results**
testOneCorrectDigitCorrectPlace Author: Dr. Balik	$ java -cp bin GuessingGame 1 <<Header>> Guess 4 digits (e.g., 2 8 5 8): **0 1 7 2**	Guess | CD CP 0 1 7 2 | 1 1 Guess 4 digits (e.g., 2 8 5 8):	Guess | CD CP 0 1 7 2 | 1 1 Guess 4 digits (e.g., 2 8 5 8):
testWinAfter3Guesses Author: Dr. Balik	$ java -cp bin GuessingGame 1 <<Header>> Guess 4 digits (e.g., 2 8 5 8): **8 5 3 7** Guess | CD CP 8 5 3 7 | 4 0 Guess 4 digits (e.g., 2 8 5 8): **5 7 3 8** Guess | CD CP 8 5 3 7 | 4 0 5 7 3 8 | 4 1 Guess 4 digits (e.g., 2 8 5 8): **5 8 7 3**	Guess | CD CP 8 5 3 7 | 4 0 5 7 3 8 | 4 1 5 8 7 3 | 4 4 You guessed correctly after 3 guess(es)!	Guess | CD CP 8 5 3 7 | 4 0 5 7 3 8 | 4 1 5 8 7 3 | 4 4 You guessed correctly after 3 guess(es)!

Test ID	Description	Expected Results	Actual Results

testBoundaryValue0And0CorrectDigits
 	
William Baldwin
	`$ java -cp bin GuessingGame 1`
	
	`<<Header>>`
	
	`Guess 4 digits (e.g., 2 8 5 8):` **`0 0 0 0`**
		` Guess  | CD CP`
		`0 0 0 0 |  0  0`
		
		`Guess 4 digits (e.g., 2 8 5 8):`
			` Guess  | CD CP`
			`0 0 0 0 |  0  0`
			
			`Guess 4 digits (e.g., 2 8 5 8):`

testLoseAfter10Guesses
 	
William Baldwin
	` Guess  | CD CP`
	`1 1 1 1 |  0  0`
	
	`Guess 4 digits (e.g., 2 8 5 8): 2 2 2 2`
	
	` Guess  | CD CP`
	`1 1 1 1 |  0  0`
	`2 2 2 2 |  0  0`
	
	`Guess 4 digits (e.g., 2 8 5 8): 3 3 3 3`
	
	` Guess  | CD CP`
	`1 1 1 1 |  0  0`
	`2 2 2 2 |  0  0`
	`3 3 3 3 |  1  1`
	
	`Guess 4 digits (e.g., 2 8 5 8): 4 4 4 4`
	
	` Guess  | CD CP`
	`1 1 1 1 |  0  0`
	`2 2 2 2 |  0  0`
	`3 3 3 3 |  1  1`
	`4 4 4 4 |  0  0`
	
	`Guess 4 digits (e.g., 2 8 5 8): 5 5 5 5`
	
	` Guess  | CD CP`
	`1 1 1 1 |  0  0`
		` Guess  | CD CP`
		`1 1 1 1 |  0  0`
		`2 2 2 2 |  0  0`
		`3 3 3 3 |  1  1`
		`4 4 4 4 |  0  0`
		`5 5 5 5 |  1  1`
		`6 6 6 6 |  0  0`
		`7 7 7 7 |  1  1`
		`8 8 8 8 |  1  1`
		`9 9 9 9 |  0  0`
		`0 0 0 0 |  0  0`
		
		`Sorry, no more guesses - the secret code is 5 8 7 3`
			` Guess  | CD CP`
			`1 1 1 1 |  0  0`
			`2 2 2 2 |  0  0`
			`3 3 3 3 |  1  1`
			`4 4 4 4 |  0  0`
			`5 5 5 5 |  1  1`
			`6 6 6 6 |  0  0`
			`7 7 7 7 |  1  1`
			`8 8 8 8 |  1  1`
			`9 9 9 9 |  0  0`
			`0 0 0 0 |  0  0`
			
			`Sorry, no more guesses - the secret code is 5 8 7 3`

	2 2 2 2 | 0 0 3 3 3 3 | 1 1 4 4 4 4 | 0 0 5 5 5 5 | 1 1 Guess 4 digits (e.g., 2 8 5 8): 6 6 6 6 Guess | CD CP 1 1 1 1 | 0 0 2 2 2 2 | 0 0 3 3 3 3 | 1 1 4 4 4 4 | 0 0 5 5 5 5 | 1 1 6 6 6 6 | 0 0 Guess 4 digits (e.g., 2 8 5 8): 7 7 7 7 Guess | CD CP 1 1 1 1 | 0 0 2 2 2 2 | 0 0 3 3 3 3 | 1 1 4 4 4 4 | 0 0 5 5 5 5 | 1 1 6 6 6 6 | 0 0 7 7 7 7 | 1 1 Guess 4 digits (e.g., 2 8 5 8): 8 8 8 8 Guess | CD CP 1 1 1 1 | 0 0 2 2 2 2 | 0 0 3 3 3 3 | 1 1 4 4 4 4 | 0 0 5 5 5 5 | 1 1 6 6 6 6 | 0 0 7 7 7 7 | 1 1 8 8 8 8 | 1 1 Guess 4 digits (e.g., 2 8 5 8): 9 9 9 9 Guess | CD CP 1 1 1 1 | 0 0		

	2 2 2 2 | 0 0 3 3 3 3 | 1 1 4 4 4 4 | 0 0 5 5 5 5 | 1 1 6 6 6 6 | 0 0 7 7 7 7 | 1 1 8 8 8 8 | 1 1 9 9 9 9 | 0 0 Guess 4 digits (e.g., 2 8 5 8): 0 0 0 0		
test2CorrectDigit0CorrectPlace William Baldwin	$ java -cp bin GuessingGame 1 <<Header>> Guess 4 digits (e.g., 2 8 5 8): 7 5 9 2	Guess | CD CP 7 5 9 2 | 2 0 Guess 4 digits (e.g., 2 8 5 8):	Guess | CD CP 7 5 9 2 | 2 0 Guess 4 digits (e.g., 2 8 5 8):
testWinOnFirstGuessFirstBoundaryForWin William Baldwin	$ java -cp bin GuessingGame 1 <<Header>> Guess 4 digits (e.g., 2 8 5 8): 5 8 7 3	Guess | CD CP 5 8 7 3 | 2 0 You guessed correctly after 1 guess(es)!	Guess | CD CP 5 8 7 3 | 2 0 You guessed correctly after 1 guess(es)!
test3CorrectDigits3CorrectPlace William Baldwin	$ java -cp bin GuessingGame 1 <<Header>> Guess 4 digits (e.g., 2 8 5 8): 2 8 7 3	Guess | CD CP 2 8 7 3 | 3 3 You guessed correctly after 1 guess(es)!	Guess | CD CP 2 8 7 3 | 3 3 You guessed correctly after 1 guess(es)!
testInvalidGuessBoundary-1 William Baldwin	$ java -cp bin GuessingGame 1 <<Header>> Guess 4 digits (e.g., 2 8 5 8): 4 7 -1 9	Invalid guess Guess 4 digits (e.g., 2 8 5 8):	Invalid guess Guess 4 digits (e.g., 2 8 5 8):