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

testTooManyCommandLine Arguments
 	
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>`

testNonintegerCommandLi neArgument
 	
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):`

testOneCorrectDigitIncorre ctPlace Author: Dr. Balik	`$ java -cp bin GuessingGame 1` `<<Header>>` `Guess 4 digits (e.g., 2 8 5 8):` **`8 6 4 1`**	` Guess	CD CP` `8 6 4 1	1 0`  `Guess 4 digits (e.g., 2 8 5 8):`	` Guess	CD CP` `8 6 4 1	1 0`

Test ID	Description	Expected Results	Actual Results

testOneCorrectDigitCorrect Place
 	
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```	``` 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

testNoCorrectDigitPlaceOr Digits
Author: Brandon Wroblewski
	```$ java -cp bin GuessingGame 1```
	
	`<<Header>>`
	
	`Guess 4 digits (e.g., 2 8 5 8): `**`1 1 1 1`**
		`` Guess	CD CP```
			``1 1 1 1
				0 0```
				
				```Guess 4 digits (e.g., 2 8 5 8):```
					`` Guess	CD CP```
						``1 1 1 1
							0 0```
							
							```Guess 4 digits (e.g., 2 8 5 8):```

| | ```
 Guess  | CD CP
1 1 1 1 |  0  0
``` | | |
| testLoseTheGame<br>Author:      Brandon<br>Wroblewski | ```
$ 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): 1 2 1 2

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 2 1 2 1

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 2 2 2 2

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
``` | ```
 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0
2 2 1 1 |  0  0
9 9 9 9 |  0  0
9 9 9 1 |  0  0

Sorry, no more guesses - the secret
code is 5 8 7 3
``` | ```
 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0
2 2 1 1 |  0  0
9 9 9 9 |  0  0
9 9 9 1 |  0  0

Sorry, no more guesses - the secret code is 5
8 7 3
``` |

```
Guess 4 digits (e.g., 2 8 5 8): 1 1 1 1

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 1 1 2 2

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 2 2 1 1

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0
2 2 1 1 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 9 9 9 9

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
```

```
1 1 1 1 |  0  0
1 1 2 2 |  0  0
2 2 1 1 |  0  0
9 9 9 9 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 9 9 9 1

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0
2 2 1 1 |  0  0
9 9 9 9 |  0  0
9 9 9 1 |  0  0
```

testSeed5andTestWinFirstTry Author: Brandon Wroblewski	`$ java -cp bin GuessingGame 5` `<<Header>>` `Guess 4 digits (e.g., 2 8 5 8): 7 2 4 4`	` Guess	CD CP` `7 2 4 4	4 4`  `You guessed correctly after 1 guess(es)!`	` Guess	CD CP` `7 2 4 4	4 4`  `You guessed correctly after 1 guess(es)!`
testSeed22 Author: Brandon Wroblewski	`$ java -cp bin GuessingGame 5` `<<Header>>` `Guess 4 digits (e.g., 2 8 5 8): 2 0 2 1`	` Guess	CD CP` `2 0 2 1	4 4`  `You guessed correctly after 1 guess(es)!`	` Guess	CD CP` `2 0 2 1	4 4`  `You guessed correctly after 1 guess(es)!`
testSeed55 Author: Brandon Wroblewski	`$ java -cp bin GuessingGame 5` `<<Header>>` `Guess 4 digits (e.g., 2 8 5 8): 5 9 9 9`	` Guess	CD CP` `5 9 9 9	4 4`  `You guessed correctly after 1 guess(es)!`	` Guess	CD CP` `5 9 9 9	4 4`  `You guessed correctly after 1 guess(es)!`

testSeedLetterSingle
Author: Brandon Wroblewski
	```$ java -cp bin GuessingGame a```
	
	```<<Header>>```
		```Usage: java -cp bin GuessingGame```
		```<seed>```
		
		```<Program exits>```
			```Usage: java -cp bin GuessingGame <seed>```
			
			```<Program exits>```

testUserInputWithExtraSpaces
Author: Brandon Wroblewski
	```$ java -cp bin GuessingGame 5```
	
	```<<Header>>```
	
	```Guess 4 digits (e.g., 2 8 5 8): 5 9```
	```9 9```
		`` Guess	CD CP```
			``5 9 9 9
				4 4```
				
				```You guessed correctly after 1```
				```guess(es)!```
					`` Guess	CD CP```
						``5 9 9 9
							4 4```
							
							```You guessed correctly after 1 guess(es)!```

testRepeatedUserValues
Author: Brandon Wroblewski
	```$ java -cp bin GuessingGame 1```
	```<<Header>>```
	
	```Guess 4 digits (e.g., 2 8 5 8): 1 1 1 1```
	
	`` Guess
		CD CP```
		``1 1 1 1
			0 0```
			
			```Guess 4 digits (e.g., 2 8 5 8): 1 1 1 1```
				`` Guess	CD CP```
					``1 1 1 1
						0 0```
						``1 1 1 1
							0 0```
							
							```Guess 4 digits (e.g., 2 8 5 8):```
								`` Guess	CD CP```
									``1 1 1 1
										0 0```
										``1 1 1 1
											0 0```
											
											```Guess 4 digits (e.g., 2 8 5 8):```

testLowerUpperBoundaryDigits
Author: Brandon Wroblewski
	```$ java -cp bin GuessingGame 1```
	```<<Header>>```
	
	```Guess 4 digits (e.g., 2 8 5 8): 0 0 9 9```
		`` Guess	CD CP```
			``0 0 9 9
				0 0```
				
				```Guess 4 digits (e.g., 2 8 5 8):```
					`` Guess	CD CP```
						``0 0 9 9
							0 0```
							
							```Guess 4 digits (e.g., 2 8 5 8):```

testUserGetsGuessRight10thTry Author: Brandon Wroblewski	```$ 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```	``` Guess	CD CP``` ```8 5 3 7	4 0``` ```5 7 3 8	4 1``` ```1 2 1 2	0 0``` ```2 1 2 1	0 0``` ```2 2 2 2	0 0``` ```1 1 1 1	0 0``` ```1 1 2 2	0 0``` ```2 2 1 1	0 0``` ```9 9 9 9	0 0``` ```5 8 7 3	4 4```	``` Guess	CD CP``` ```8 5 3 7	4 0``` ```5 7 3 8	4 1``` ```1 2 1 2	0 0``` ```2 1 2 1	0 0``` ```2 2 2 2	0 0``` ```1 1 1 1	0 0``` ```1 1 2 2	0 0``` ```2 2 1 1	0 0``` ```9 9 9 9	0 0``` ```5 8 7 3	4 4``` ```You guessed correctly after 10 guess(es)!```

```
5 7 3 8 |  4  1

Guess 4 digits (e.g., 2 8 5 8): 1 2 1 2

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 2 1 2 1

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 2 2 2 2

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 1 1 1 1

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 1 1 2 2

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
```

```
You guessed correctly after 10
guess(es)!
```

```
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 2 2 1 1

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0
2 2 1 1 |  0  0

Guess 4 digits (e.g., 2 8 5 8): 9 9 9 9

 Guess  | CD CP
8 5 3 7 |  4  0
5 7 3 8 |  4  1
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0
2 2 1 1 |  0  0
9 9 9 9 |  0  0

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
1 2 1 2 |  0  0
2 1 2 1 |  0  0
2 2 2 2 |  0  0
1 1 1 1 |  0  0
1 1 2 2 |  0  0
2 2 1 1 |  0  0
9 9 9 9 |  0  0
```

	`5 8 7 3 |  4  4`		

testUserGivesTooManyValues
Author: Brandon Wroblewski
	`$ java -cp bin GuessingGame 1`
	`<<Header>>`
	
	`Guess 4 digits (e.g., 2 8 5 8): 1 1 1 1`
	`5 4 3 2`
		`  Guess  | CD CP`
		`1 1 1 1 |  0  0`
		
		`Guess 4 digits (e.g., 2 8 5 8):`
			`  Guess  | CD CP`
			`1 1 1 1 |  0  0`
			
			`Guess 4 digits (e.g., 2 8 5 8):`