

# Testing Document

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## Input Tests

Test ID	Test Description	Test Data	Expected Result	Actual Results
1	What happens if the user tries to input a choice unavailable?	Int: 7	The program asks the user to re-input a choice.	The program redisplay the description, question and prompt to the user.
2	What happens if the user tries to input a String?	String: "Seven"	The program asks the user to re-input a choice.	The program crashes due to the unexpected data type.
3	What happens if the user tries to input a Float?	Float: 7.234	The program asks the user to re-input a choice.	The program crashes due to the unexpected data type.
4	What happens if the user tries to input a Boolean?	Boolean: TRUE	The program asks the user to re-input a choice.	The program crashes due to the unexpected data type.
5	What happens if the user tries to continuously input enter as the choice?	Input: (Enter 10 times), Int: 2.	The program asks the user to re-input a choice.	The program waits for the user to input a valid input without outputting any error msgs or resending a msg.

## Misc Tests

Test ID	Test Description	Test Data	Expected Result	Actual Results
6	What happens if the user tries to choose the 3rd node when it's not available?	Int: 3	The program says unavailable choice.	The program outputs an "Invalid choice" msg and asks the user to press enter to start again.

7	What happens if you continuously sleep in and won't wake up?	Int: 1(Looped)	The program should allow the user to sleep for as long as they like as there's no set limit on choices.	The program allows the user to sleep continuously (Tested 10 times)
8	What happens when you win the program and press enter?	Input: Enter	The program should restart at node 0 for the user to play again.	The program after outputting the msg "You have obtained milk" allows the user to press enter again and starts again at node 0.

## Navigation Tests

Test ID	Test Description	Test Data	Expected Result	Actual Results
9	Can you navigate to node 5 (WIN)?	Int: 2, 1, 1, 1, 1, 1	It should be possible to win the application by following this path.	The Program allows the user to follow this path and the result is that a win msg is outputted once the user reaches the winning node.
10	What happens if like stated in the Decision Map you are unable to repick John? Is it possible to lose?	Int: 2, 1, 2, 1, 2	The program should stop the user from asking John again for milk	If the user declines to talk to archey the program outputs a failed msg and resets to node 0 as Archey is the only option.
11	Can you navigate to node 18 (WIN) by talking to John and then being told to talk to Archey?	Int: 2, 1, 2, 1, 1, 1	It should be possible to win the application by following this path.	The Program allows the user to follow this path and the result is that a win msg is outputted once the user reaches the winning node.
12	Can you navigate to node 18 (WIN) by going directly to Archey?	Int: 2, 2, 1, 1	It should be possible to win the application by following this path.	The Program allows the user to follow this path and the result is that a win msg is outputted once the user reaches the winning node.

13	Can you navigate to node 10 (WIN)?	Int: 2, 1, 2,2, 1	It should be possible to win the application by following this path.	The Program allows the user to follow this path and the result is that a win msg is outputted once the user reaches the winning node.
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## Custom Features Tests

### Previous Nodes / Go back feature

Test ID	Test Description	Test Data	Expected Result	Actual Results
14	What happens if the user tries to use option "4" (Go back to the previous node), when the program starts and there are no previous choices.	Int: 4	The program should output an empty msg.	The program outs a msg stating the Stack (ADT used for storing previously accessed nodes) is currently empty, it then requests the user re-enter a choice.
15	What happens if the user tries to use option "4" (Go back to the previous node), after a win or loss, when the program resets them to position 0.	Int: 2, 1, 2,2, 1, 4	The user should be able to go back to the previous steps even if they are win/loss msg.	The user is sent back to the previous node.
16	What happens if the user loads a node and then uses the Previous node function?	Int: 4	The user should be sent back to the previous node they interacted with, not the previous node before the node they loaded.	The Program doesn't go back and instead outputs a stack empty msg, this is likely due to the fact the stack is only updated after the first node choice, Node 0 is not added to the stack upon initilisation of the program
17	What happens if the user loads a node and then uses the Previous node function?	Int: 2, 4	The user should be sent back to the previous node they interacted with, not the previous node before the node they loaded.	The user is sent back to the previous node.

## Search feature

Test ID	Test Description	Test Data	Expected Result	Actual Results
18	What happens if the user tries to load position 17.	Int: 5, 17	The program should set the user's node to NodeID 17 and display the correct Description/Question.	The program runs the function and loads the correct node.
19	What happens if the user tries to load node -1. (Out of bounds)	Int: 5, -1	The program should output an error msg and ask the user to input another choice.	The program outputs an error msg stating the node is invalid and asks the user to re-enter a choice (Not for loading nodes but for choosing a function/choice).
20	What happens if the user tries to load node 72. (Out of bounds)	Int: 5, 72	The program should output an error msg and ask the user to input another choice.	The program outputs an error msg stating the node is invalid and asks the user to re-enter a choice (Not for loading nodes but for choosing a function/choice).

## Testing Evidence

*Testing evidence can be found by using the TestID*

### Test 1

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
7
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
|
```

## Test 2

```
Do you sleep in?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
Seven  
Exception in thread "main" java.util.InputMismatchException Create breakpoint  
    at java.base/java.util.Scanner.throwFor(Scanner.java:939)  
    at java.base/java.util.Scanner.next(Scanner.java:1594)  
    at java.base/java.util.Scanner.nextInt(Scanner.java:2258)  
    at java.base/java.util.Scanner.nextInt(Scanner.java:2212)  
    at MyFiles.BackendClasses.Console.getID(Console.java:30)  
    at MyFiles.BackendClasses.Console.<init>(Console.java:17)  
    at MyFiles.Main.main(Main.java:6)  
  
Process finished with exit code 1
```

## Test 3

```
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
7.234  
Exception in thread "main" java.util.InputMismatchException  
    at java.base/java.util.Scanner.throwFor(Scanner.java:939)  
    at java.base/java.util.Scanner.next(Scanner.java:1594)  
    at java.base/java.util.Scanner.nextInt(Scanner.java:2258)  
    at java.base/java.util.Scanner.nextInt(Scanner.java:2212)  
    at MyFiles.BackendClasses.Console.getID(Console.java:30)  
    at MyFiles.BackendClasses.Console.<init>(Console.java:17)  
    at MyFiles.Main.main(Main.java:6)  
  
Process finished with exit code 1
```

## Test 4

```
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
TRUE  
Exception in thread "main" java.util.InputMismatchException Create breakpoint  
    at java.base/java.util.Scanner.throwFor(Scanner.java:939)  
    at java.base/java.util.Scanner.next(Scanner.java:1594)  
    at java.base/java.util.Scanner.nextInt(Scanner.java:2258)  
    at java.base/java.util.Scanner.nextInt(Scanner.java:2212)  
    at MyFiles.BackendClasses.Console.getID(Console.java:30)  
    at MyFiles.BackendClasses.Console.<init>(Console.java:17)  
    at MyFiles.Main.main(Main.java:6)  
  
Process finished with exit code 1
```

## Test 5

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

2

```
You try to make breakfast but are out of milk
Do you ask roommate 1 John for some money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
|
```

## Test 6

```
3
Invalid Choice
You try to make breakfast but are out of milk
Do you ask roommate 1 John for some money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

## Test 7

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

1

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

1

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

1

You wake up  
Do you sleep in?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
You wake up  
Do you sleep in?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
You wake up  
Do you sleep in?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
...

## Test 8

```
Finley arrives home with the milk
-
Press Enter key to continue...

You have obtained the Milk and win the game
-
Press Enter key to continue...

You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

## Test 9

You wake up  
Do you sleep in?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
2  
You try to make breakfast but are out of milk  
Do you ask roommate 1 John for some money for milk?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
John then asks who last drank the milk

Do you tell John Finley drank the milk last?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
John tells you to phone Finley and that if he doesnt pick up to ask Archey instead  
Do you phone Finley?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
Finley picks up and asks what do you want  
Do you tell Finley he last drank the milk?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
Finley says he will pick up the milk  
50% Chance pick Yes or No  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
Finley arrives home with the milk  
-  
Press Enter key to continue...  
  
You have obtained the Milk and win the game  
...

## Test 10

```
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
2
You were unable to obtain the Milk and lost the game
-
Press Enter key to continue...
```

## Test 11

You wake up  
Do you sleep in?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
2  
You try to make breakfast but are out of milk



Do you ask roommate 1 John for some money for milk?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
John then asks who last drank the milk  
Do you tell John Finley drank the milk last?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
2  
-  
Do you tell John Archey drank the milk last?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
You have been told to ask Archey for Milk  
Do you ask Archey for money for milk?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
You decided to ask Archey for milk he then asks who last drank the milk  
Do you tell Archey he last drank the milk?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
1  
Archey offers to buy some milk  
-  
Press Enter key to continue...  
...

## Test 12

You wake up  
Do you sleep in?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
2  
You try to make breakfast but are out of milk  
Do you ask roommate 1 John for some money for milk?  
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)  
2  
You try to make breakfast but are out of milk  
Do you ask roommate 2 Archey for some money for milk?

Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)

1

You decided to ask Archey for milk he then asks who last drank the milk

Do you tell Archey he last drank the milk?

Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)

1

Archey offers to buy some milk

-

Press Enter key to continue...

...

### Test 13

You wake up

Do you sleep in?

Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)

2

You try to make breakfast but are out of milk

Do you ask roommate 1 John for some money for milk?

Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)

1

John then asks who last drank the milk

Do you tell John Finley drank the milk last?

Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)

2

-

Do you tell John Archey drank the milk last?

Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)

2

-

Do you tell John You drank the milk last?

Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)

1

John offers to buy you the milk

-

Press Enter key to continue...

...

## Test 14

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
4
Stack is Empty
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
|
```

## Test 15

```
Do you tell John You drank the milk last?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
1
John offers to buy you the milk
-
Press Enter key to continue...

You have obtained the Milk and win the game
-
Press Enter key to continue...

You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
4
-
Do you tell John You drank the milk last?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

## Test 16

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
5
Enter a nodeId between 0 - 33
17
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
4
Stack is Empty
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

## Test 17

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
2
You try to make breakfast but are out of milk
Do you ask roommate 1 John for some money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
5
Enter a nodeId between 0 - 33
17
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
4
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
|
```

## Test 18

```
You wake up
Do you sleep in?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
5
Enter a nodeId between 0 - 33
17
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
|
```

## Test 19

```
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
5
Enter a nodeId between 0 - 33
-1
Invalid node
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
```

## Test 20

```
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
5
Enter a nodeId between 0 - 33
72
Invalid node
You have been told to ask Archey for Milk
Do you ask Archey for money for milk?
Yes or No? (press 1 for Yes or 2 No, 3 for maybe. Press 4 to go Back. Press 5 to search for nodes.)
|
```