

Unit Tests (Instructions) SIMULATION MODE – All files you see in these command lines have been left intact in the directory. The input file used is “infile.txt” throughout the entire Tests.

- 1) Running a command “java gameofcatz” with no arguments

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz
-----Providing usage information!-----
add argument '-i' for interactive testing environment
add argument '-s infile savefile' where savefile is the file you want to load
```

- 2) Running a command “java gameofcatz -s” with no arguments or just one argument

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -s
Wrong combination of usage, call 'java gameofcatz' to get usage information
```

- 3) Running a command “java gameofcatz -s infile outfile” where infile doesn’t exist.

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -s
lol.txt hello.txt
-----Going to simulation mode!-----
No Edge Codes found, infile possibly doesn't exist
No Vertice Codes found, infile possibly doesn't exist
No Nodes or Edges found, infile possibly doesn't exist
No Start found, infile possibly doesn't exist
No Target found, infile possibly doesn't exist
The infile seems to be corrupted!
```

(The multiple error messages are because we try to atleast extract the Start, Finish and other details out of it, think of this as a design choice to further modularize the program).

- 4) Running a command “java gameofcatz -s infile outfile” where infile is an empty file.

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -s
empty.txt hello.txt
-----Going to simulation mode!-----
No Edge Codes found, infile possibly doesn't exist
No Vertice Codes found, infile possibly doesn't exist
No Nodes or Edges found, infile possibly doesn't exist
No Start found, infile possibly doesn't exist
No Target found, infile possibly doesn't exist
The infile seems to be corrupted!
```

- 5) Running a command “java gameofcatz -s infile outfile” where the target is not a defined Node.

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -s
test1.txt outputtest1.txt
-----Going to simulation mode!-----
The infile seems to be corrupted!
```

- 6) Running a command “java gameofcatz -s infile outfile” where the start is not a defined Node.

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -s
test2.txt outputtest2.txt
-----Going to simulation mode!-----
The infile seems to be corrupted!
```

- 7) Running a command “java gameofcatz -s infile outfile” where the start and target exists but there is actually no paths.

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -s test3.txt outputtest3.txt
-----Going to simulation mode!-----
No possible paths found!
```

- 8) Running a command “java gameofcatz -s infile outfile” where the infile has Nodes and Edges of undefined Node and Edge Codes.

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -s test4.txt outputtest4.txt
-----Going to simulation mode!-----
No Such Vertice Code for L
No Such Edge Code for X
Data loaded from test4.txt & the paths are generated to outputtest4.txt
```

It ignores such Edges and Vertices and generates everything else.

- 9) Running a command “java gameofcatz -s infile outfile” where the infile has duplicate Node Codes and Edge Codes.

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -s test5.txt outputtest5.txt
-----Going to simulation mode!-----
Data loaded from test5.txt & the paths are generated to outputtest5.txt
```

## INTERACTIVE MODE

All use cases related to option 1, Load Input File has been extensively tested.

- 1) To run interactive mode “java gameofcatz -i”

```
sahas@MSI:/mnt/c/Users/sahas/Curtin - Sem2/DSA - COMP/Assignment 1/Unit Test Harnesses/MainApp$ java gameofcatz -i
-----Going to interactive mode!-----
  ^ ^
( 0..0 ) meow!

-----Interactive Mode! Main Menu!-----
Please enter the number for whatever respective option you want
(1) Load input file
(2) Node Operations (find, insert, delete, update)
(3) Edge Operations (find, add, remove, update)
(4) Edge Code tweaks
(5) Node Code tweaks
(6) Display graph
(7) Display world
(8) Display routes
(9) Save Network
(10) Exit
Your choice: 1
```

- 2) When entering a wrong input (any other integer other than 1-10, or any input), this is applicable for all menus

```
-----Interactive Mode! Main Menu!-----
Please enter the number for whatever respective option you want
(1) Load input file
(2) Node Operations (find, insert, delete, update)
(3) Edge Operations (find, add, remove, update)
(4) Edge Code tweaks
(5) Node Code tweaks
(6) Display graph
(7) Display world
(8) Display routes
(9) Save Network
(10) Exit
Your choice: 12.3
Enter a valid choice please
```

- 3) Trying to add a Node or a Edge without having a Node Code or a Edge Code initialized.

```
-----Interactive Mode! Main Menu!-----
Please enter the number for whatever respective option you want
(1) Load input file
(2) Node Operations (find, insert, delete, update)
(3) Edge Operations (find, add, remove, update)
(4) Edge Code tweaks
(5) Node Code tweaks
(6) Display graph
(7) Display world
(8) Display routes
(9) Save Network
(10) Exit
Your choice: 2
-----Node Submenu-----
1. Delete Node
2. Update Node
3. Insert Node
4. Display All Nodes
5. Display All Node Codes
6. Find Node
7. Exit Node Sub Menu
What would you like to do?: 3
Add a Vertice Code First
```

4) Trying to delete a Node or an Edge with none in the graph.

```
-----Node Submenu-----
1. Delete Node
2. Update Node
3. Insert Node
4. Display All Nodes
5. Display All Node Codes
6. Find Node
7. Exit Node Sub Menu
What would you like to do?: 1
Nothing to delete!
-----Node Submenu-----
1. Delete Node
2. Update Node
3. Insert Node
4. Display All Nodes
5. Display All Node Codes
6. Find Node
7. Exit Node Sub Menu
What would you like to do?: |
```

5) Trying to update a Node or an Edge with none in the graph

```
-----Edge Submenu-----
1. Delete Edge
2. Update Edge
3. Insert Edge
4. Display All Edges
5. Display All Edge Codes
6. Find Edge
7. Exit Edge Sub Menu
What would you like to do?: 2
Nothing to update!
-----Edge Submenu-----
1. Delete Edge
2. Update Edge
3. Insert Edge
4. Display All Edges
5. Display All Edge Codes
6. Find Edge
7. Exit Edge Sub Menu
What would you like to do?: |
```

Other options are portrayed in the usability section of the Report under the gameofcatz class.

6) Adding an Edge Code or Node Code but entering an illegal value

```
-----Edge Code Tweaking Submenu-----
1. Add Edge Code Parameter
2. Delete Edge Code Parameter
3. Update Edge Code Parameter
4. Display Edge Codes
5. Exit
What is your choice?: 1
Please enter the Char for the Edge Code: X
Please enter the weight for the Edge Code: 12.3
Please input an integer!
```

7) Adding an Edge Code successfully and displaying it

```
-----Edge Code Tweaking Submenu-----
1. Add Edge Code Parameter
2. Delete Edge Code Parameter
3. Update Edge Code Parameter
4. Display Edge Codes
5. Exit
What is your choice?: 1
Please enter the Char for the Edge Code: X
Please enter the weight for the Edge Code: 10
-----Edge Code Tweaking Submenu-----
1. Add Edge Code Parameter
2. Delete Edge Code Parameter
3. Update Edge Code Parameter
4. Display Edge Codes
5. Exit
What is your choice?: 4
EdgeCode:Weight
X:10
```

8) Adding a Vertice Code successfully and displaying it

```
-----Vertice Code Tweaking Submenu-----
1. Add Vertice Code Parameter
2. Delete Vertice Code Parameter
3. Update Vertice Code Parameter
4. Display Vertice Codes
5. Exit
What is your choice?: 1
Please enter the Char for the Edge Code: L
Please enter the weight for the Edge Code: 5
-----Vertice Code Tweaking Submenu-----
1. Add Vertice Code Parameter
2. Delete Vertice Code Parameter
3. Update Vertice Code Parameter
4. Display Vertice Codes
5. Exit
What is your choice?: 4
EdgeCode:Weight
L:5
```

9) Trying to insert a duplicate Node or Edge

```
-----Node Submenu-----
1. Delete Node
2. Update Node
3. Insert Node
4. Display All Nodes
5. Display All Node Codes
6. Find Node
7. Exit Node Sub Menu
What would you like to do?: 3
New name for this node?: A
A Node with this label already exists!
```

10) Trying to insert a Node or Edge with a Node Code or Edge Code that doesn't exist

```
-----Node Submenu-----
1. Delete Node
2. Update Node
3. Insert Node
4. Display All Nodes
5. Display All Node Codes
6. Find Node
7. Exit Node Sub Menu
What would you like to do?: 3
New name for this node?: B
NodeCodes:Weight
L:5
New weight code for this node?: D
No such Node Code
```

11) Trying to enter empty lines for menus (nothing is supposed to happen)

```
-----Node Submenu-----
1. Delete Node
2. Update Node
3. Insert Node
4. Display All Nodes
5. Display All Node Codes
6. Find Node
7. Exit Node Sub Menu
What would you like to do?: 3
New name for this node?:
-----Node Submenu-----
1. Delete Node
2. Update Node
3. Insert Node
4. Display All Nodes
5. Display All Node Codes
6. Find Node
7. Exit Node Sub Menu
What would you like to do?: |
```

12) Loading an infile successfully.

```
-----Interactive Mode! Main Menu!-----
Please enter the number for whatever respective option you want
(1) Load input file
(2) Node Operations (find, insert, delete, update)
(3) Edge Operations (find, add, remove, update)
(4) Edge Code tweaks
(5) Node Code tweaks
(6) Display graph
(7) Display world
(8) Display routes
(9) Save Network
(10) Exit
Your choice: 1
Please enter an input file: infile.txt
Data loaded from infile.txt
-----Interactive Mode! Main Menu!-----
Please enter the number for whatever respective option you want
(1) Load input file
(2) Node Operations (find, insert, delete, update)
(3) Edge Operations (find, add, remove, update)
(4) Edge Code tweaks
(5) Node Code tweaks
(6) Display graph
(7) Display world
(8) Display routes
(9) Save Network
(10) Exit
Your choice: |
```

13) Adding a Node or an Edge successfully

```
-----Node Submenu-----
1. Delete Node
2. Update Node
3. Insert Node
4. Display All Nodes
5. Display All Node Codes
6. Find Node
7. Exit Node Sub Menu
What would you like to do?: 3
New name for this node?: Z
NodeCodes:Weight
F:-1
T:1
-:0
D:100
R:200
New weight code for this node?: R
-----Node Submenu-----
```

#### 14) Printing out Network

```
-----Interactive Mode! Main Menu!-----  
Please enter the number for whatever respective option you want  
(1) Load input file  
(2) Node Operations (find, insert, delete, update)  
(3) Edge Operations (find, add, remove, update)  
(4) Edge Code tweaks  
(5) Node Code tweaks  
(6) Display graph  
(7) Display world  
(8) Display routes  
(9) Save Network  
(10) Exit  
Your choice: 9  
Starting position: A  
Destination: B  
File Name to Save?: simulation1network.txt
```