CSCI 3901

Software Development Concepts

Faculty of Computer Science

Assignment 3: Test Cases

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Table Category Description

Test ID

- Serial number for each test case

Test Scenario

- What is been tested

Test Case

- Type of parameter i.e. valid or invalid is passed to the case

Pre-Condition

- Conditions on which the passed parameters will be validated

Test Steps (Ascending)

- Order in which Module will be tested.
- In other words, order in methods will be executed

User Input

- Passed value to the parameters

Actual Result

- Result of the test case based on the user input

Additional Comments

- Describes why did the test case failed or succeeded.
- And which preconditions were validated.

Status

- P A S S – it indicates that the test case has behaved in the expected manner and yields desirable result.
- F A I L – it indicates that the passed parameter of test case has violated the preconditions or any other error occurred.

MODULE TESTED:

addEdge(String v1,String v2, int weight)

Test ID	Test Scenario	Test Case	Pre Condition	Test Steps (Method)	User Input	Actual Result	Additional Comments	Status
TC_01	Call addEdge (v1,v2,weight)	Enter **valid** (v1 &v2) Enter **valid** (weight)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type	addEdge (v1,v2,weight)	v1= "Abc" v2="wasd weight=27	Returns True	v1 & v2 value can be any String and weight can be any **positive** integer	**PASS**
TC_02	Call addEdge (v1,v2,weight)	Enter **invalid** (v1 or v2) Enter **valid** (weight)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type	addEdge (v1,v2,weight)	v1= "" v2="wasd weight=12	Returns False	v1 or v2 value can't be **Empty String** and weight can be any **positive** integer	**FAIL**
TC_03	Call addEdge (v1,v2,v3)	Enter **invalid** (v1 or v2) Enter **valid** (weight)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type	addEdge (v1,v2,weight)	v1= "G123" v2= null weight=7	Returns False	v1 or v2 value can't be **NULL String** and weight can be any **positive** integer	**FAIL**
TC_04	Call addEdge (v1,v2,weight)	Enter **valid** (v1 & v2) Enter **valid** (weight)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type	addEdge (v1,v2,weight)	v1= "G*123" v2= "Fdc$#@" weight=17	Returns True	v1 or v2 value can be **String with special characters** and weight can be any **positive** value	**PASS**
TC_05	Call addEdge (v1,v2,weight)	Enter **valid** (v1 or v2) Enter **valid**	1) **v1** & **v2** should be String type 2) **weight** should be	addEdge (v1,v2,weight)	v1= "G123 " v2= " F "	Returns True	v1 or v2 value can be **String with white spaces** and	**PASS**

	(v1,v2,weight)	Enter valid (weight)	2) weight should be Integer type	(v1,v2,weight)	weight=1		weight can be any **positive** value	
TC_06	Call addEdge (v1,v2,weight)	Enter **invalid** (v1 & v2) Enter **valid** (weight)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type	addEdge (v1,v2,weight)	v1= " " v2= " " weight=7	Returns False	v1 or v2 value can't be only **white spaces** and weight can be any **positive** value	**F A I L**
TC_07	Call addEdge (v1,v2,weight)	Enter **valid** (v1 & v2) Enter **valid** (weight)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type	addEdge (v1,v2,weight)	v1= "1234 " v2= "5.43" weight=7	Returns True	v1 or v2 value can be **Integer** & **Float String** and weight can be any **positive** value	**P A S S**
TC_08	Call addEdge (v1,v2,weight)	Enter **valid** (v1 &v2) Enter **invalid** (weight)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type	addEdge (v1,v2,weight)	v1= "Abc" v2="wasd weight=-27	Returns False	v1 & v2 value can be any String and weight can't be **negative** integer	**F A I L**

MODULE TESTED:

addEdge(String v1,String v2, int weight)

clusterVertices(float tolerance)

Test ID	Test Scenario	Test Case	Pre Condition	Test Steps (Method)	User Input	Actual Result	Additional Comments	Status
TC_01	1) Call addEdge (v1,v2,weight) 2)clusterVertices (tolerance)	Enter **valid** (v1 & v2) Enter **valid** (weight) Enter **valid** (tolerance)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type 3) **tolerance** should be float type	addEdge (v1,v2,weight) clusterVertices (tolerance)	v1= "Abc" v2="wasd weight=27 tolerance=5	Returns True Returns Set<String>	v1 & v2 value can be any String and weight can be any **positive** integer tolerance can be **positive** float value	**PASS**
TC_02	1) Call addEdge (v1,v2,weight) 2)clusterVertices (tolerance)	Enter **valid** (v1 & v2) Enter **valid** (weight) Enter **invalid** (tolerance)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type 3) **tolerance** should be float type	addEdge (v1,v2,weight) clusterVertices (tolerance)	v1= "Axsbc" v2="wcvasd weight=27 tolerance=-54	Returns True Returns NULL	v1 & v2 value can be any String and weight can be any **positive** integer tolerance can't be **negative** float value	**FAIL**
TC_03	1)clusterVertices (tolerance) 2) Call addEdge (v1,v2,weight)	Enter **invalid** (tolerance) Enter **valid** (v1 & v2) Enter **valid** (weight)	1) **v1** & **v2** should be String type 2) **weight** should be Integer type 3) **tolerance** should be float type	clusterVertices (tolerance) addEdge (v1,v2,weight)	tolerance=-2 v1= "Axsbc" v2="wcvasd weight=27	Returns Set<String> Returns True	Both method will run successfully but no clusters will form as the clusterVertices() is called before addEdge()	**FAIL**