**Type of test case: Unit Test** 

Graph:AddNode

Developed /Executed By: Salman/ Nauman

Execution Date: 15/4/2013 Application Version:

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Adds a node to the graph and checks if it was added correctly	Add new nodes	Nodes should be added to Graph	Pass	Nodes were added successfully.	
2	Adds a node to the graph and checks if it was added correctly	Add a null Node.	This Node should not be added	Pass	Node was not added to Graph	

**Type of test case: Unit Test** 

# **Graph:ContainsNode**

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Checks if a node is in the graph or not	Add a node to find which is in graph	It should find the node and return true.	Pass	Found the Node	
2	Checks if a node is in the graph or not	Add a node to find which is not in graph	This Node should not be found.	Pass	Didn't find the node and returned false.	

**Type of test case: Unit Test** 

# **Graph:GetNode**

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Checks if a node is in the graph and return it.	Add a node to get which is in graph	It should find the node and return it.	Pass	Found the Node	
2	Checks if a node is in the graph and return it.	Add a node to get which is not in graph	This Node should not be found.	Pass	Didn't find the node and returned null.	
3	Enter the Integer ID of a node to get it.	Add a node ID to get which is in graph	It should find the node and return it.	Fail	Exception	If we entered an integer to find the node, it couldn't find it.

4	Enter the	Add a node	This Node	Pass	Didn't find	
	Integer ID of	ID to get	should not		the node and	
	a node to get	which is	be found.		returned null.	
	it.	not in				
		graph				

**Type of test case: Unit Test** 

# **Graph:FindRoute**

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Find the route between 2 nodes.	2 nodes among which a route exists	It should find the route and return it.	Pass	Returned the correct route.	
2	Find the route between 2 nodes.	2 nodes among which a route doesn't exists	It should not find a route and return null.	Pass	Didn't find the route and returned null.	

**Type of test case: Unit Test** 

#### Node: Add Node To Adjacency List

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Adds a node to adjacency list of this node	A new node to add.	It should add the node.	Pass	The node was added successfully.	
2	Adds a node to adjacency list of this node	Added null Node.	This Node should not be added.	Pass	No new node was added.	

Type of test case: Unit Test

# Node:GetAdjacencyList

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Returns the adjacencyList of a node.	Add a few nodes and ask for list.	It should return all the node added to it.	Pass	Correctly returned all the adjacent nodes of this node	
2	Adds a node to adjacency list of this node	Added null Node.	This Node should not be added.	Pass	No new node was added.	

**Type of test case: Unit Test** 

# Node:SetEdgeWeight

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Should set the weight of an edge.	A node and its associated weight.	The weight should be set correctly.	Pass	The weight was changed successfully.	

Type of test case: Unit Test

# Node: Equal Is Node

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Checks if two nodes are equal or not.	2 nodes which are equal.	Should return true.	Pass	Returned true.	
2	Checks if two nodes are equal or not.	2 nodes which are not equal.	Should return false.	Pass	Returned false.	

**Type of test case: Unit Test** 

#### Node:IsNodeInAdjacencyList

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	Checks if a node is in adjacencyList or not.	A node which is in adjacencyList.	Should return true.	Pass	Returned true.	
2	Checks if a node is in adjacencyList or not.	A node which is not in adjacencyList.	Should return false.	Pass	Returned false.	
3	Checks if a node is in adjacencyList or not(given its ID).	A node ID whose Node is in adjacencyList.	Should return true.	Fail	Returned false.	Some exceptions during converting IDs from integer to string.

4	Checks if a	A node ID	Should	Pass	Returned	
	node is in	whose Node	return false.		false.	
	adjacencyList	is not in				
	or not(given	adjacencyList.				
	its ID).					

**Type of test case: Unit Test** 

# MainActivity

Developed /Executed By: Salman/ Nauman Execution Date: 15/4/2013

Execution Date: 15/4/2013 Application Version:

Test Case ID	Test Description	Input Values	Expected Result	Status(Pass/Fail)	Actual Result	Comments
1	It Checks that are the buttons are displayed on the screen or not.	The Screan Size for which we want to test our GUI.	All buttons should be inside the screen.	Pass	Dislayed all buttons.	