

## NonLinear :: Graph

- MAXIMUM : int
- adjacencyMatrix : bool[][]
- weightCostMatrix : int[][]
- graphData : Type[]
- vertexCount : int

Graph() : constructor

+ addVertex(const Type& value) : void

### Connecct Vertices

- + addEdge(int source, int target) : void
- + addEdgeUndireccted(int source, int target) : void
- + addEdgeCost(int source, int target) : void

### Disconnect Vertices

- + removeEdge(int source, int target) : void
- + removeEdgeUndirected(int source, int target) : void
- + removeEdgeCost(int source, int target) : void

### Accessors

- + operator[](int vertex) : Type &
- + operator[](int vertex) : Type const
- + size() const : int

### Check Connections

- + hasUndirectedConnection(int source, int target) : const bool
- + areConnected(int source, int target) : const bool
- + neighbors(int vertex) : const std::set<int>

### Traversals

- + depthFirstTraversal(Graph<Type& graph, int vertex) : void
- + breadthFirstTraversal(Graph<Type> & graph, int vertex) : void
- + costTraversaol(Graph<Type> & graph, int vertex) : void
- depthFirstTraversal(Graph<Type& graph, int vertex, bool markedVertices[]) : void