

```
1: /*
2:  * AdjacencyList.h
3:  *
4:  * Created on: May 28, 2011
5:  * Author: darioandrade
6:  */
7:
8: #ifndef ADJACENCYLIST_H_
9: #define ADJACENCYLIST_H_
10:
11: #include <stdio.h>
12: #include "List.h"
13:
14: class AdjacencyList {
15:
16: public:
17:
18:     AdjacencyList( int nVertex );
19:     virtual ~AdjacencyList( );
20:
21:     virtual void addEdge( int iVertex, int jVertex, bool bUpdateNeighbor = true, bool bIncEdge = true );
22:     void write( FILE * f = NULL );
23:     void read( FILE * f = NULL, int debug = 0 );
24:
25:     virtual bool HasEdge( ) const;
26:     virtual int RemoveHighestDegreeVertex( int debug ) { return -1; }
27:
28:     int GetSize() const { return m_nVertex; }
29:     int GetEdges() const { return m_nEdges; }
30:
31: // int GetDegree(int iVertex) { return (int)m_arrAdjLists[iVertex]->size(); }
32:
33:
34: protected:
35:     AdjacencyList( );
36:     virtual void Allocate( int nVertex );
37:     virtual void updateData(){ }
38:
39:     int m_nVertex;
40:     List ** m_arrAdjLists;
41:
42:     int m_nEdges;
43: };
44:
45: #endif /* ADJACENCYLIST_H_ */
```