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Memory Management Chatbot

REVIEW

CODE REVIEW 7

HISTORY

▶ src/chatlogic.cpp 5

▼ src/graphnode.h 1

```

1 #ifndef GRAPHNODE_H_
2 #define GRAPHNODE_H_
3
4 #include <vector>
5 #include <string>
6 #include "chatbot.h"
7
8 #include <memory>
9 using std::vector;
10 using std::unique_ptr;
11
12 // forward declarations
13 class GraphEdge;
14
15 class GraphNode
16 {
17 private:
18     //// STUDENT CODE : Task 4
19     ////
20
21     // data handles (owned) ==> modify to unique_ptr
22     //vector<GraphEdge*> _childEdges; // edges to subsequent nodes
23     vector<unique_ptr<GraphEdge>> _childEdges; // my code

```

AWESOME

This section has uses `std::unique_ptr` to express exclusive ownership on the `_childEdges`.

```

24
25     // data handles (not owned)
26     vector<GraphEdge*> _parentEdges; // edges to preceding nodes
27
28     //ChatBot *_chatBot; // original, Task 5

```

```

29 ChatBot _chatBot; // my code, _chatBot is saved in stack memory.
30
31 ////
32 //// EOF STUDENT CODE
33
34 // proprietary members
35 int _id;
36 vector<std::string> _answers;
37
38 public:
39 // constructor / destructor
40 GraphNode(int id);
41 ~GraphNode();
42
43 // getter / setter
44 int GetID() { return _id; }
45 int GetNumberOfChildEdges() { return _childEdges.size(); }
46 GraphEdge *GetChildEdgeAtIndex(int index);
47 std::vector<std::string> GetAnswers() { return _answers; }
48 int GetNumberOfParents() { return _parentEdges.size(); }
49
50 // proprietary functions
51 void AddToken(std::string token); // add answers to list
52 void AddEdgeToParentNode(GraphEdge *edge);
53 //void AddEdgeToChildNode(GraphEdge *edge); // original
54 void AddEdgeToChildNode(unique_ptr<GraphEdge> edge); // my code : Task 4
55
56 //// STUDENT CODE
57 ////
58
59 //void MoveChatbotHere(ChatBot* chatbot); // original
60 void MoveChatbotHere(ChatBot chatbot); // my code, Task 5
61
62 ////
63 //// EOF STUDENT CODE
64
65 void MoveChatbotToNewNode(GraphNode *newNode);
66 };
67
68 #endif /* GRAPHNODE_H_ */

```

► src/chatbot.h 1

► src/graphnode.cpp

► src/graphedge.h

► src/graphedge.cpp

► src/chatlogic.h

► src/chatgui.h

► src/chatgui.cpp

► src/chatbot.cpp

► src/answergraph.txt

► CMakeLists.txt

RETURN TO PATH

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