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// Macro Guard
#ifndef HUFFMANCODE_H
#define HUFFMANCODE_H

#include <string>
#include <map>
#include <queue>
#include "HuffmanHeap.h"

using std::string;
using std::map;

class HuffmanCode{
public:
    //Constructor
    HuffmanCode(string);

    //Destructor
    ~HuffmanCode();

    //Accessor methods
    string getSourceString()          {return data;};

    void printHuffmanTrie();
    string* HuffmanCode::printEncoded();

private:
    string data;
    HuffmanHeap* heap;                //Underlying Data Structure
    map<char, int> frequencyTable;
    map<char, string> huffmanTrie;
    void buildMap();
    void buildHeap();
    void encode();
    void getHuffmanEncoding(HuffmanNode*, string);

    string encodedData;
};
#endif
```