**Proj11.cpp Documentation**

**Purpose:**

The main objectives of this project is to get familiar with recursion, and the ability to work with some STL functionalities along with templates, dynamic data structures, as well as manipulating dynamic memory, classes, pointers and iostream to all extents.

**Design:**

The design of this project was not much different than other projects.

**Challenges:**

This was one of the easier projects especially since after the exam. To be honest I am not sure why Christos decided to do this even after the final. It was hard for me to complete this project because I didn’t have time because I had other finals to study for.

**Changes:**

This project wasn’t too hard to understand and figure out what we were really supposed to do. It would help tremendously if we had an example output in our project file to help us understand what the desired output should look like. Like I said in past projects, I am getting tired of conceptual projects and I learn better with projects that I am more interested in like calculators, tic tac toe, etc.

**Observations:**

My code compiles and does everything I expected it to do. Not going to write much of my observation here but I will paste a snippet of the printout I am receiving.

$ ./proj11.exe

144 same as 144

23 same as 23

87 same as 87

108 same as 108

20 same as 20

210 same as 210

94 same as 94

39 same as 39

136 same as 136

177 same as 177

25 same as 25

86 same as 86

49 same as 49

87 same as 87

11 same as 11

34 same as 34

177 same as 177

23 same as 23

38 same as 38

180 same as 180

136 same as 136

115 same as 115

50 same as 50

42 same as 42

38 same as 38

0 same as 0

122 same as 122

120 same as 120

30 same as 30

117 same as 117

129 same as 129

175 same as 175

140 same as 140

2 same as 2

68 same as 68

160 same as 160

212 same as 212

162 same as 162

199 same as 199

133 same as 133

126 same as 126

10 same as 10

5 same as 5

175 same as 175

98 same as 98

17 same as 17

210 same as 210

61 same as 61

40 same as 40

33 same as 33

26 same as 26

176 same as 176

149 same as 149

77 same as 77

5 same as 5

187 same as 187

78 same as 78

127 same as 127

93 same as 93

109 same as 109

29 same as 29

8 same as 8

69 same as 69

169 same as 169

11 same as 11

137 same as 137

115 same as 115

8 same as 8

86 same as 86

100 same as 100

142 same as 142

212 same as 212

110 same as 110

147 same as 147

173 same as 173

208 same as 208

165 same as 165

168 same as 168

55 same as 55

205 same as 205

202 same as 202

82 same as 82

168 same as 168

136 same as 136

159 same as 159

173 same as 173

110 same as 110

23 same as 23

85 same as 85

203 same as 203

132 same as 132

115 same as 115

212 same as 212

201 same as 201

70 same as 70

8 same as 8

124 same as 124

185 same as 185

17 same as 17

210 same as 210

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