```cpp
#include <iostream>
#include "equation.h"
#include <fstream>
using namespace std;



int main() {

    ifstream firstequation;
    ifstream secondequation;
    ifstream thirdequation;
    ifstream fourthequation;
    ifstream fifthequation;
    ifstream sixthequation;
    ofstream outputfile;
    equation one;
    equation two;
    equation three;
    equation four;
    equation five;
    equation six;
    nodetype n;
    outputfile.open(_Filename:"Polynomial Assignment");
    firstequation.open(_Filename:"firstequation.txt");
    secondequation.open(_Filename:"secondequation.txt");
    thirdequation.open(_Filename:"thirdequation.txt");
    fourthequation.open(_Filename:"fourthequation.txt");
    fifthequation.open(_Filename:"fifthequation.txt");
    sixthequation.open(_Filename:"sixthequation.txt");

    if (!firstequation.is_open())
    {
        cout << "The input file did not open " << endl;
        return 0;
    }
    if (!secondequation.is_open())
    {
        cout << "The input file did not open " << endl;
        return 0;
    }
    if (!thirdequation.is_open())
    {
        cout << "The input file did not open " << endl;
        return 0;
    }
    if (!fourthequation.is_open())
    {
        cout << "The input file did not open " << endl;
```

```
50          return 0;
51      }
52      if (!fifthequation.is_open())
53      {
54          cout << "The input file did not open " << endl;
55          return 0;
56      }
57      if (!sixthequation.is_open())
58      {
59          cout << "The input file did not open " << endl;
60          return 0;
61      }
62          for (int i = 0; i < 4; i++)
63          {
64              firstequation >> n.coeff >> n.exp;
65              one.insertitem(n);
66
67          }
68          one.printlist(&:outputfile);
69          outputfile << endl;
70
71          for (int i = 0; i < 6; i++)
72          {
73              secondequation >> n.coeff >> n.exp;
74              two.insertitem(n);
75          }
76          two.printlist(&:outputfile);
77          outputfile << endl;
78
79          one.add(e2:two,&:outputfile);
80          outputfile << endl;
81
82          for (int i = 0; i < 4; i++)
83          {
84              thirdequation >> n.coeff >> n.exp;
85              three.insertitem(n);
86          }
87          three.printlist(&:outputfile);
88          outputfile << endl;
89
90          for (int i = 0; i < 5; i++)
91          {
92              fourthequation >> n.coeff >> n.exp;
93              four.insertitem(n);
94          }
95          four.printlist(&:outputfile);
96          outputfile << endl;
97
98          three.add(e2:four, &:outputfile);
```

```
 99          outputfile << endl;
100
101          for (int i = 0; i < 7; i++)
102          {
103              fifthequation >> n.coeff >> n.exp;
104              five.insertitem(n);
105          }
106          five.printlist(&:outputfile);
107          outputfile << endl;
108
109          for (int i = 0; i < 5; i++)
110          {
111              sixthequation >> n.coeff >> n.exp;
112              six.insertitem(n);
113          }
114          six.printlist(&:outputfile);
115          outputfile << endl;
116
117          five.add(e2:six, &:outputfile);
118
119          cout << "The Program Is Done. Check Your Polynomial File" << endl;
120      return 0;
121  }
```