Reality Check: Week 11

Word Problem (Question #1)

Following is a C++ program, which will create a sequential file and write the data into a file. Write the code in Visual Studio and generate its output.

```
#include <iostream>
#include <fstream>

using namespace std;

int main()
{
	// ofstream constructor opens file
	ofstream outClientFile("clients.dat", ios::out);

	if (!outClientFile) {  // overloaded ! operator
		cerr << "File could not be opened" << endl;
		exit(1);    // prototype in stdlib.h
	}
	cout << "Enter the account, name, and balance.\n"
		<< "Enter end-of-file to end input: \? \n";
	int account;
	char name[30];
	float balance;

	while (cin >> account >> name >> balance) {
		outClientFile << account << ' ' << name
			<< ' ' << balance << '\n';
		cout << "? ";
	}
	outClientFile.close(); // ofstream close() function closes
file
	return 0;
}
```

Word Problem (Question #2)

Write a C++ program, which will read the data from a sequential file and display the output on console screen. Write the code in Visual Studio and generate its output.

Word Problem (Question #3)

Write and execute the following C++ programming code.
Next, modify the code to remove any errors or ambiguities to the following program to generate correct output :

```
#include <iostream>
#include <fstream>
using namespace std;

class emp
{
      char name[40];
      int age;
      float baseSalary;
      char another;
public:
      emp()
      {
            age = 0; baseSalary = 0; another = '\0';
      }

      void writeToFile()
      {
            ofstream objOut("EMPLOYEE.DAT", ios::out);
            another = 'Y';
            if (objOut.fail())
            {
                  cout << "Cannot open file..!!" << endl;
            }
            while (another == 'Y' || another == 'y')
            {
                  cout << "\nEnter Name: ";
                  cin >> name;
                  cout << "\nEnter Age: ";
                  cin >> age;
                  cout << "\nEnter BaseSalary: ";
                  cin >> baseSalary;
                  objOut << name << " " << age << " " << baseSalary
<< " ";
                  cout<< "Add another record (Y/N): ";
                  cin >> another;
            }
```

```
            objOut.close();
      }

      void readFromFile()
      {
            ifstream objIn("EMPLOYEE.DAT", ios::in);
            if (objIn.fail())
            {
                  cout << "Cannot open file..!!" << endl;
            }
            while (!objIn.eof())
            {
                  objIn >> name;
                  cout << endl << "Name = " << name;
                  objIn >> age;
                  cout << endl << "Age = " << age;
                  objIn >> baseSalary;
                  cout << endl << "BaseSalary = " << baseSalary;
                  cout << endl;
            }
            cout << endl;
            objIn.close();
      }
};

int main()
{
      emp objEmp;
      objEmp.writeToFile();
      objEmp.readFromFile();
      cout << endl;
      return 0;
}
```