

Algorithms Level 3



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Problem #47/3 Solution Using C++

```
#include <iostream>
#include <fstream>
#include <string>
#include <vector>

using namespace std;
const string ClientsFileName = "Clients.txt";

struct sClient
{
    string AccountNumber;
    string PinCode;
    string Name;
    string Phone;
    double AccountBalance;
};

sClient ReadNewClient()
{
    sClient Client;

    cout << "Enter Account Number? ";

    // Usage of std::ws will extract all the whitespace character
    getline(cin >> ws, Client.AccountNumber);

    cout << "Enter PinCode? ";
    getline(cin, Client.PinCode);

    cout << "Enter Name? ";
    getline(cin, Client.Name);

    cout << "Enter Phone? ";
    getline(cin, Client.Phone);

    cout << "Enter AccountBalance? ";
    cin >> Client.AccountBalance;

    return Client;
}
```



Problem #47/3 Solution Using C++

```
string ConvertRecordToLine(sClient Client, string Seperator =
"#//#")
{
    string stClientRecord = "";

    stClientRecord += Client.AccountNumber + Seperator;
    stClientRecord += Client.PinCode + Seperator;
    stClientRecord += Client.Name + Seperator;
    stClientRecord += Client.Phone + Seperator;
    stClientRecord += to_string(Client.AccountBalance);

    return stClientRecord;
}

void AddDataLineToFile(string FileName, string stDataLine)
{
    fstream MyFile;
    MyFile.open(FileName, ios::out | ios::app);

    if (MyFile.is_open())
    {
        MyFile << stDataLine << endl;

        MyFile.close();
    }
}

void AddNewClient()
{
    sClient Client;
    Client = ReadNewClient();
    AddDataLineToFile(ClientsFileName,
ConvertRecordToLine(Client));
}
```



Problem #47/3 Solution Using C++

```
void AddClients()
{
    char AddMore = 'Y';
    do
    {
        system("cls");
        cout << "Adding New Client:\n\n";

        AddNewClient();
        cout << "\nClient Added Successfully, do you want to add
more clients? Y/N? ";
        cin >> AddMore;

        } while (toupper(AddMore) == 'Y');
    }

int main()
{
    AddClients();

    system("pause>0");

    return 0;
}
```