

## Algorithms Level 3



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## Problem #46/3 Solution Using C++

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

using namespace std;

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

vector<string> SplitString(string S1, string Delim)
{
    vector<string> vString;

    short pos = 0;
    string sWord; // define a string variable

    // use find() function to get the position of the delimiters
    while ((pos = S1.find(Delim)) != std::string::npos)
    {
        sWord = S1.substr(0, pos); // store the word
        if (sWord != "")
        {
            vString.push_back(sWord);
        }

        S1.erase(0, pos + Delim.length());
    }

    if (S1 != "")
    {
        vString.push_back(S1); // it adds last word of the string.
    }

    return vString;
}
```



## Problem #46/3 Solution Using C++

```
sClient ConvertLinetoRecord(string Line, string Seperator =
"#//#")
{

    sClient Client;
    vector<string> vClientData;

    vClientData = SplitString(Line, Seperator);

    Client.AccountNumber = vClientData[0];
    Client.PinCode = vClientData[1];
    Client.Name = vClientData[2];
    Client.Phone = vClientData[3];
    Client.AccountBalance = stod(vClientData[4]); //cast string to
double

    return Client;
}

void PrintClientRecord(sClient Client)
{

    cout << "\n\nThe following is the extracted client record:\n";
    cout << "\nAccout Number: " << Client.AccountNumber;
    cout << "\nPin Code      : " << Client.PinCode;
    cout << "\nName          : " << Client.Name;
    cout << "\nPhone         : " << Client.Phone;
    cout << "\nAccount Balance: " << Client.AccountBalance;
}

int main()
{
    string stLine = "A150#//#1234#//#Mohammed Abu-
Hadhoud#//#079999#//#5270.000000";

    cout << "\nLine Record is:\n";
    cout << stLine;

    sClient Client = ConvertLinetoRecord(stLine);

    PrintClientRecord(Client);
    system("pause>0");
    return 0;
}
```