



SEMESTRE MAYO- AGOSTO

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Activity: HW11 - DataPersistence

The screenshot shows a Visual Studio Code editor with a C# project named 'CSPROJECT'. The Explorer pane on the left shows the project structure, including folders like '.vscode', 'bin', 'data', 'model', 'obj', 'utils', and 'view', and files like 'customers.json', 'Account.cs', 'Customer.cs', 'Transaction.cs', 'ManageJson.cs', 'Menus.cs', 'CSProject.csproj', 'CSProject.sln', and 'Program.cs'. The main editor area shows the 'Menus.cs' file, which contains a menu system with four options: 1. Deposit Money, 2. Withdraw Money, 3. Consult balance, and 4. Exit. The code for option 1 is highlighted, showing a transaction being deposited and the account balance being updated. The terminal at the bottom shows the output of the program, which matches the menu options and displays the account balance for option 3.

```
view > C# Menus.cs > Menu > accountMenu
case 1:
Transaction transaction = Account.deposit(customerAccount.Account);
foreach(Customer currentCustomer in customers)
{
    if(customerAccount.Id==currentCustomer.Id)
    {
        currentCustomer.Account.Balance=customerAccount.Account.Balance;
        break;
    }
}
ManageJson<Customer>.save(customers,"data/customers.json");
break;
case 2:
break;
case 3:
Console.WriteLine("The account: " + customerAccount.Account.AccountNumber +
" balance is: $" + customerAccount.Account.Balance);
break;
case 4:
break;
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
4. Exit
-----
3
The account: 478569 balance is: $25
----- Account Menu -----
1. Deposit Money
2. Withdraw Money
3. Consult balance
4. Exit
-----
```



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```
C# Menus.cs C# Customer.cs C# Account.cs C# ManageJson.cs 1 X
utils > C# ManageJson.cs > ManageJson > read
1 using System;
2 using System.Collections;
3 using System.Net.Sockets;
4 using Newtonsoft;
5 using Newtonsoft.Json;
6
7 namespace CSProyect.utils
8 {
9     4 references
10    public class ManageJson<T>
11    {
12        2 references
13        public static void save(List<T> list,string fileAddress)
14        {
15            string jsonText = JsonConvert.SerializeObject(list,Formatting.Indented);
16            File.WriteAllText(fileAddress,jsonText);
17        }
18        2 references
19        public static List<T> read(string fileAddress)
20        {
21            string fileContents = File.ReadAllText(fileAddress);
22            return JsonConvert.DeserializeObject<List<T>>(fileContents);
23        }
24    }
25 }
```

```
customers.json
1 [
2   {
3     "Id": 1,
4     "Name": "Frederick",
5     "Adress": "Comite del Pueblo",
6     "Account": {
7       "Balance": 300.0,
8       "AccountNumber": 123456
9     }
10  },
11  {
12    "Id": 2,
13    "Name": "Samy",
14    "Adress": "Solanda",
15    "Account": {
16      "Balance": 25.0,
17      "AccountNumber": 478569
18    }
19  }
20 ]
```