



Coding Exercise

Your task is to identify a bug in the provided function below, which calculates end-of-day balances for a customer's bank account data, as demonstrated in the sample code below.

You are expected to analyse the code, understand the C# object structure inferred from the JSON input, and if necessary, use any external packages, to create an executable solution.

As you work on this task, please document your troubleshooting process and note any assumptions made during the identification of the solution. Since this solution is intended for a production ready system, it is crucial to consider quality assurance aspects.

To share your solution with us, please use a code collaboration and version control system such as [Gitlab](#) or [Github](#) or any other platform of your preference.

SAMPLE CODE INPUT

The method is written in [C#](#).

```
public AccountBalance CalculateEndOfDayBalance(string accountJson)
{
    var account = JsonConvert.DeserializeObject<Account>(accountJson);

    var totalDebit = 0M;
    var totalCredit = 0M;

    foreach (var transaction in account.transactions)
    {
        if (transaction.creditDebitIndicator == "Debit")
        {
            totalDebit += transaction.amount;
        }
        else
        {
            totalCredit += transaction.amount;
        }
    }

    var endOfDayBalance = account.balances.current.amount - totalDebit
+ totalCredit;

    return new AccountBalance
    {
        TotalDebit = totalDebit,
        TotalCredit = totalCredit,
        EndOfDayBalance = endOfDayBalance
    };
}
```

SAMPLE JSON INPUT

Following Sample JSON data set containing account data is provided as the input bellow:

```
{
  "accountId": "123456A",
  "balances": {
    "current": {
      "amount": 1000.25,
      "creditDebitIndicator": "Credit"
    },
    "available": {
      "amount": 900.25,
      "creditDebitIndicator": "Credit"
    }
  },
  "transactions": [
    {
      "transactionId": "123x",
      "description": "Online Payment xxxxxx To HOME
MORTGAGE",
      "amount": 800.0,
      "creditDebitIndicator": "Debit",
      "status": "Booked"
    },
    {
      "transactionId": "123y",
      "description": "SAINSBURYS LOC xxxx LONDON",
      "amount": 100.0,
      "creditDebitIndicator": "Debit",
      "status": "Pending"
    },
    {
      "transactionId": "123y",
      "description": "pot_0000xxxxxxxxxxxxxxxxxxxxxxxx",
      "amount": 10.0,
      "creditDebitIndicator": "Debit",
      "status": "Booked"
    }
  ]
}
```