

Task N 1

Both classes `DodgyBankAccount` and `SecureBankAccount` are designed to perform the same functionality working with bank account:

`DepositAmount(int amount)` – add money to the account

`DisplayAccountBalanceDetails()` – print the balance

`DebitAmount(int amount)` – take money from the account

`AddReward()` – get a reward after depositing money

Problems with `DodgyBankAccount` :

- All properties are public

```
public string AccountNumber;  
public int AccountBalance;  
public int RewardAmount = 50;
```

This allow to change them from outside the class:

```
myDodgyBankAccount.AccountBalance = 1000000;
```

- The method `AddReward()` is also public

```
public void AddReward()
```

So, it can be misused from outside the class, for example called several times.

```
myDodgyBankAccount.AddReward();  
myDodgyBankAccount.AddReward();  
myDodgyBankAccount.AddReward();
```

Also if the business logic is that account is getting a reward after the depositing money, that should not be possible to call `AddReward()` without calling method `DepositAmount`.

In contract, `SecureBankAccount` has all properties and `AddReward()` method private, `AddReward()` method is called from `DepositAmount(int amount)`, therefore it is more secure – properties cannot be changed from outside the class and reward cannot be added without depositing money.

Task N 2

Refactoring of `WeatherReporter`

- Add `get;`, `set;` to `Location` and `Temperature`
- `Check1` and `Check2` are not suitable methods' names, because not clear what they are checking. I changes the names to `CheckTemperature` and `CheckLocation`.
- Method `Print()` is not printing anything what is very confusing, it is just returning some info, so I changes the name to `GetWeatherInfo`.
- Also method `Print()` contains 2 actions: converting into `Fareiheit` and returning info, I took converting outside into separate method `ConvertToFahrenheit()`