LabCorp Clinical Development Coding Test

Requirements

Write classes in C# represent 3 different types of Employee – hourly employees, salaried employees, and managers (also considered salaried employees)

Each employee has a floating-point property for number of vacation days accumulated for the work year (defined as 260 workdays) which cannot be a negative value and is not writable externally. Upon creation its value should be set to 0.

Hourly employees accumulate 10 vacation days during the work year.
Salaried employees accumulate 15 vacation days during the work year.
Managers accumulate 30 vacation days during the work year.

Each employee has a Work() method that takes a single integer parameter that defines the number of days worked which should be a value between 0 and 260. When this method is called, the number of vacation days accumulated should be updated appropriately.

Each employee also has a TakeVacation() method that takes a single floating-point parameter that defines the number of vacation days used. When this method is called, the number of vacation days accumulated should be updated appropriately.

An employee cannot work more than the number of workdays in a work year and cannot take more vacation than is available.

Unit tests should prove the correctness of the code. At a minimum, the methods for Work() and TakeVacation() should have tests that check for corner cases.

Tools and technologies

C#: Visual Studio or Visual Studio Code