Get+Set Progress Update

Since the use of getter and setter methods is simple functionality combined with only one input, I decided to establish equivalence classes to assist in the proper testing of the methods. A few notes about the derived classes below:

- Every method with the exception of year() has the ability to “bubble up” to the next time unit if the standard range is exceeded (ex. greater than 59 seconds will increase minutes and less than 0 seconds will decrease minutes)

- The same method is used for both getting and setting. If no input is given it is used as a getter, otherwise it is used as a setter.

- Decimal values are valid inputs to the function, but they do not comprise their own equivalence classes because the methods simply truncates them and treats them as integers.

- At this point in the project, only valid equivalence classes have had test cases designed for them.

milliseconds()

Gets or sets the milliseconds

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 0 and 999 |  |
| Less than 0 |  |
| Greater than 999 |  |

seconds()

Gets or sets the seconds

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 0 and 59 |  |
| Less than 0 |  |
| Greater than 59 |  |

minutes ()

Gets or sets the minutes

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 0 and 59 |  |
| Less than 0 |  |
| Greater than 59 |  |

hour()

Gets or sets the hours

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 0 and 23 |  |
| Less than 0 |  |
| Greater than 23 |  |

date()

Gets or sets the day of month

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 1 and (# days in current month) |  |
| Less than 1 |  |
| Greater than (# of days in current month) |  |

day()

Gets or sets the day of the week

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 0 and 6 |  |
| Less than 0 |  |
| Greater than 6 |  |
| Full String (ex. “Tuesday”) |  |
| Partial String (ex. “Tue”) |  |

dayOfYear()

Gets or sets the day of the year

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 1 and (# of days in current year) |  |
| Less than 0 |  |
| Greater than (# of days in current year) |  |

week()

Gets or sets the week of the year

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 0 and 51 |  |
| Less than 0 |  |
| Greater than 51 |  |

month()

Gets or sets the month

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 0 and 11 |  |
| Less than 0 |  |
| Greater than 11 |  |
| Full String (ex. “November”) |  |
| Partial String (ex. “Nov”) |  |

quarter()

Gets or sets the current quarter

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between 1 and 4 |  |
| Less than 1 |  |
| Greater than 4 |  |

year()

Gets or sets the current year

|  |  |
| --- | --- |
| **Valid Equivalence Classes** | **Invalid Equivalence Classes** |
| Empty Input | Non Integer or Float Input |
| Between -270000 and 270000 | Less than -270000 |
|  | Greater Than 270000 |
|  |  |