

# Assignment 3

CS321 Winter 2023, Professor Christopher Diggins

## Create an ASCII String Class

Create a class that stores data inside using an array of bytes and an ASCII internally. Call this class `AsciiString`. This project can be implemented entirely within a single NUnit test project.

This class should have:

- A constructor that accepts a `byte[]` argument
- A constructor that accepts a string argument
- An implicit conversion operator to string
- An implicit conversion operator from string
- A `"IEnumerable<char> GetChars()"` function written as an "iterator method"
- A `"AsciiString Substring(int start, int count)"` function
- An operator overload for the `+` operator that accepts two `AsciiString`
- A read-only property `Count` that returns the number of characters (same as number of bytes)
- A read-only indexing operator that returns the `n`th character (not byte)

## Submission

1. A source file containing the tests (`AsciiStringTests.cs`)
2. A source file containing the implementation (`AsciiString.cs`)
3. The project file (`AsciiProj.cs`)
4. A screenshot of the test-explorer window (`tests.png`)

## Grading Criteria

This assignment will be graded out of 10.

1. **0.5 point for each function/property (total 4)**
2. **0.5 point for a test function with at least one assert for each function/property (total 4)**
3. **1 point for good coding style**
4. **1 point for making the `GetChars()` function an iterator method**