Project 7 Documentation

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The purpose of the program is to practice using dynamic memory with string storage and manipulation.

The design of my code is based around modularity. I wrote each method and then individually tested the method before writing the next one. In order to test the functionality of the methods, I used the statements included in the project description. I put these statements in a test.cpp file and progressively added tests as I finished writing each method.

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| --- | --- | --- |
| Method | If Success | If Failure |
| Default ctor | Print “Default ctor” | Doesn’t print |
| Parameterized ctor | Print string literal | Doesn’t print |
| Copy Ctor | Print copied string literal & size | Doesn’t print |
| Dtor | Print “Dtor “ & size | Doesn’t print |
| Size | Print String’s size | Doesn’t print |
| Length | Print String’s length | Doesn’t print |
| C\_str | Print String literal | Doesn’t print |
| Operator== | Print appropriately “success” or “fail” | Incorrect word printed |
| Operator= | Print string after assignment | Incorrect string printed |
| Operator+ | Print connected strings | Incorrect string printed |
| Operator[] | Print “success” | Incorrect string printed |
| Operator<< | Print “success” | Doesn’t print |

The biggest problem I faced with this project was understanding the purpose for dynamic memory over static memory. I attended a few PASS sessions and reviewed my notes to now understand the benefits of the dynamic memory. Also, I struggled with the operator+ method because I misread the method description initially. At first, I thought we were supposed to modify the calling object for some reason and was attempting to do that. I realized that I was not supposed to do this. Instead I had to create a new object to be returned and allocate new memory to hold the mashed together string.