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CS 202

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Project Seven Documentation

**Purpose:**

The purpose of this project was for us to get familiar with dynamic memory allocation. This was done by using char arrays in order to create enough space. This project worked with a char pointer inside a class and the class’ functions were used in order to allocate and deallocate memory for the char pointer.

**Error that had to be fixed:**

One main error I had that I had to fix was one that kept showing up when I was compiling. It said “free() invalid size”. I went through my debugging process by following how my code was flowing and where the error was occurring. It was in my parameterized ctor and I was deallocating m\_buffer before it was allocated. I understand why this was an error because it was assigned any memory yet and I was trying to delete memory that did not exist.

**Design:**

I designed this project by implementing all of the helper functions I would need for the constructors operators and allocation functions first. I commented out all of the main functions and worked on each one by one so I could ensure their would not be any bugs when I compiled the program all together. In my experience this is a better idea because if you work on it all at once and compile the whole thing together, there is the possibility of there being many errors and that can be overwhelming.

**Further Understanding:**

One thing I learned from this project is that bracket overloading can be used for a member variable inside the class. For this project it was the m\_access could be passed in an index in bracket notation. This allows for the m\_access particular index element to be changed. For the other one with the const qualifier it can not be changed as it is a constant object.