# Project 1 Midpoint Report

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## Project Description

Part 1 focused on building the foundation of the program to parse user’s input and store those into tokens. This way when moving onto part 2 we have most of the necessary functionality needed to further extend the shell to then create processes, handle the input and output, and it’s execution.

## Achievements

Describe in a paragraph what you accomplished in part I and how you solved the given problem, specifically what library functions you used in your code to fill the data in the given data structure. Furthermore, describe any issues you encountered such as runtime errors or problems using specific library functions.

We implemented the logic for prompting the user for input and parsing said input into separate arguments delimited by whitespace. This was accomplished by implementing the functionality for the provided param class template as well as a separate parse class for directly managing the input and output streams for the program. In order to ensure that the program could continue to run and take in user input, we also added the clearArguments function to the param class in order to reset instances of it for reuse. Furthermore, a destructor was added to the param class to free up memory.

## Preliminary Testing

Describe 3-4 test cases that you developed for testing your code. A test case includes an input string of your choice and your program’s output. Describe whether you believe the program passed the test.

## We have tested multiple cases of typical commands a shell may have such as “ls -l”, “cat < input.txt”, or “ls -l > output.txt”. But also, the parsing of a command where someone might leave out the space before the redirect file, such as “cat <input.txt”. The output in debug mode shows that our program correctly parses the commands from user

## Next Steps

Describe in a paragraph the next steps to solve the problem given in the project description. Be sure you break down the description into the different parts that need to be accomplished such as how to create a new process, how to do input/output direction, handle foreground and background.