

Assignment 1: Design

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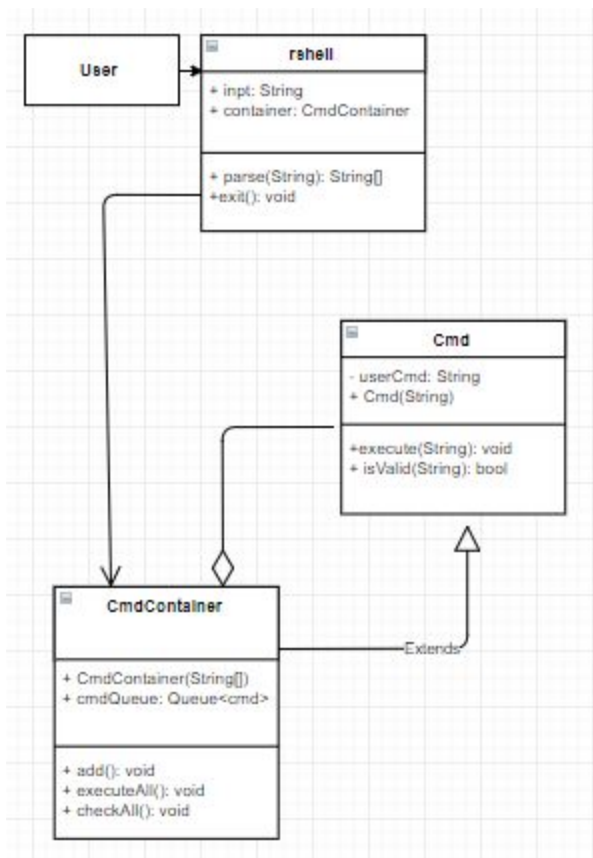
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Introduction:

In this project we will be creating a Rshell class; this will get the user input, tokenize/parse the input, and then put all the executable commands into a CmdContainer class. This CmdContainer class will be a composite subclass of Cmd, and will have the functionality of being able to add executables into the queue field, checking to see if the executable is a valid statement, and the finally executing the command.

Diagram:



Classes/Class Groups:

- **RShell**: Will get the input from user, tokenize the string into separate commands, and put pass them into the **CmdContainer** class.
- **Cmd**: This is an virtual class that will have a private string variable that will hold an executable, as well as a execute function and a `isValid` function to see if it is actually a valid command
- **CmdContainer**: This a composite subclass of **Cmd**, it will have a queue of commands, so we will easily be able to check the validity of all our user inputted commands as well as run all of the commands given.

Coding Strategy:

This assignment is not large enough to warrant splitting up tasks among ourselves. Therefore, we shall be performing extreme coding; working together on one computer to complete our code.

Roadblocks:

During this assignment, we will most likely come across the usual programming syntax errors as well, as well as delegating enough time and having the time management skills to get this assignment done. In order to overcome these roadblocks, we will be implementing our “extreme coding” strategy so that we will write cleaner code more efficiently and get things right the first time.