**WIP:** CPP Beginners class – Final Project

For your final project in this course, you will create a “Dialog System” using C++.

This system (module) will be comprised of several components (components can be composed of several classes):

1. Parser
2. Dialog
3. GUI (not implemented by you – using “dear imgui”)
4. A Sample Text based game (containing at least 20 different dialogs)
5. **Parser**: The Parser component will be used to consume different types of data, and it will output the data to other modules as vectors of strings.

The Parser will include:

class IParser – abstract class

Methods:

* virtual vector<string> GetData() = 0

Variables:

* vector<string> data

class JSONParser – concrete class derives from IParser

Methods:

* bool SetRootDataDirectory(string& \_rootDirPath)
* vector<string> GetData() override

Variables:

* string rootDirPath

1. **Dialog:** The Dialog component is the main component. There are different kind of dialogs, all inheriting from the same base class. Dialogs hold different types of data which they can get from the Parser component.

The Dialog will include:

Class IDialog – abstract class

Variables:

* Title
* Text
* Color (text, window)
* Position

Methods:

* Virtual void Run() = 0

Derived types will contain other elements such as:

* Delay
* Next dialog
* Size
* Button
* Timer

1. **GUI:** will be consumed by your class in order to render the different dialogs (using a lib file and a dll file). You will use API calls to render your dialogs on screen
2. **Sample Game**: the game will contain a short text-based adventure consisting of, at least 20 different dialogs