Json Parser

Problem

Given a valid json string (with simplified format), parse the string and return the corresponding object made of Dictionary, Array, String and Double.

First Step

Please implement the `parse` function to parse an array of doubles. Here we assume that double is formatted as followed, `100, 20.0, 0.2` and you don't need to worry about cases like `2e+5, .2309, etc.`. In fact, for the sake of simplicity, don't even worry about negative values. Please be aware that there could be empty space that need to be taken care of. For instance,

```
// should return a Array with three Double objects
var jp = Jsonparser()
var result = jp.parse(" [ 10 , 20.0, 0.2 ] ")
```

Second Step

Generalize the parse function to be able to parse an array of both doubles and strings. The string is assumed to be surrounded by double quote only and each string value does not contain double quotes. For instance,

```
// should return a Array with (Double) 10, (Double) 20.0, (String) "hello", (Double) 0.2
result = jp.parse(" [ 10, 20.0, "hello", 0.2 ] ")
```

Third Step

Generalize the parse function to be able to parse an object. The key of each attribute is assumed to be a string surrounded by double quote only. For instance,

```
// should return a Dictionary<String, Any> with key values "foo" => "bar" and "hello" => 100
result = jp.parse("{ \"foo\": \"bar\", \"hello\" : 100 }")
```

Fourth Step

Generalize the parse function to be able to parse an object with nested object.

```
result = jp.parse("{ \"key\": { \"foo\": \"bar\", \"hello\" : 100 } }")
```

Submission

Upon completion, please follow the instruction described in the website (where you found the instruction to download the project) to submit your solution. You can submit as many times as you like and your last submission will be used for the final evaluation as well as marking the end of your interview.

Lastly, do not worry about submitting many times nor running a little bit over time as they will not be penalized.