Dominic MacIsaac CPSC 326 Final Project Specifications March 29, 2022

Project Requirements

For this project, I will be adding arrays into MyPI. Users will be able to instantiate these arrays to a specified type. They will be able to grow in size and shrink with the addition of add(array, value) and remove(array, index) functions. Additionally there will be a size(array) function. Array access will be through brackets. This is also how setting values will be done. I plan on having them handle both regular types and hopefully user defined types as well, depending on time limitations. Implicit and explicit declarations will be supported.

Syntax

Instantiation

```
arr int x = \{\} #empty int array
arr y = \{\text{"test","inputs", "on", "creation"}\} #implicit string declaration
arr int z = \{1,2,3\}
```

Setting Values

```
y[0] = "test 2"
y[4] = "test e" # will cause out of bounds error
```

Getting Values

```
w = y[0]<br/>var q = y[2]
```

Special Functions

```
size(y)
add(y, "add")
remove(y, 0) #removes index 0 and shifts rest of list forward
```