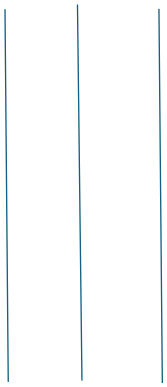
CSC 710 – STRUCTURE AND DESIGN PROGRAMMING LANGUAGE



ASSIGNMENT 1

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1. There are altogether three solutions to check for balancing symbols in the pascal and C++ languages.
2. After you run each program, you will have options to choose Balancing symbol in pascal language for which you need to enter 1 and for other one (i.e. C++) enter 2 in the terminal.

Test cases for PYTHON:

Enter a number: 1 (pascal test cases:)

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE*******
***
********** ENTER NUMBER {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE**********
enter a number:1
Enter the balancing symbol for PASCAL Language:([]){}
the expression enter by user is {expr}
['(', '[', ']', ')', '{', '}']
Balanced
```

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE*******
***
********** ENTER NUMBER {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE**********
enter a number:1
Enter the balancing symbol for PASCAL Language:beginend(x=y)[y+z]
the expression enter by user is {expr}
['begin', 'end', '(', ')', '[', ']']
Balanced
```

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE*******
***
********** ENTER NUMBER {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE**********
enter a number:1
Enter the balancing symbol for PASCAL Language:(x=y](y+3)beginend
the expression enter by user is {expr}
['(', ']', '(', ')', 'begin', 'end']
Unbalanced
```

Enter a number 2 (C++ test cases):

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE*******
***
********** ENTER NUMBER {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE**********
enter a number:2
Enter the balancing symbol for C++:/**/(x=y)[g=r]
the expression enter by user is {expr}
['/*', '*/', '(', ')', '[', ']']
Balanced
```

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE*******
***
********** ENTER NUMBER {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE**********
enter a number:2
Enter the balancing symbol for C++:()[]*/
the expression enter by user is {expr}
['(', ')', '[', ']', '*/']
Unbalanced
```

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE*******
***
********** ENTER NUMBER {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE**********
enter a number:2
Enter the balancing symbol for C++:*/()[]
the expression enter by user is {expr}
['*/', '(', ')', '[', ']']
Unbalanced
```

Test cases for C++:

- **To run BracketBalancer.cpp, "g++ -std=c++11 BracketBalancer.cpp -o Prog.out && ./Prog.out"**

Enter a number 1: (Pascal test cases)

```
yuvrajpant@Yuvrajs-MacBook-Pro Question_2 % g++ -std=c++11 BracketBalancer.cpp -o Prog.out && .
/Prog.out
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE *********
*****
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE ***********
**
Enter a Number: 1
Enter the balancing symbol for PASCAL Language: ()[]beginend(x=y)(c+y)
 The expression entered by user is: ()[]beginend(x=y)(c+y)
Cleaned tokens: ( ) [ ] begin end ( ) ( )
Balanced
```

```
yuvrajpant@Yuvrajs-MacBook-Pro Question_2 % g++ -std=c++11 BracketBalancer.cpp -o Prog.out && .
/Prog.out
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE *********
*****
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE ***********
**
Enter a Number: 1
Enter the balancing symbol for PASCAL Language: (x-y_0)guffbegin{}*/
 The expression entered by user is: (x-y_0)guffbegin{}*/
Cleaned tokens: ( ) begin { }
Unbalanced
```

```
yuvrajpant@Yuvrajs-MacBook-Pro Question_2 % g++ -std=c++11 BracketBalancer.cpp -o Prog.out && .
/Prog.out
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE *********
*****
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE ***********
**
Enter a Number: 1
Enter the balancing symbol for PASCAL Language: (x=y){}[begin]end
 The expression entered by user is: (x=y){}[begin]end
Cleaned tokens: ( ) { } [ begin ] end
Unbalanced
```

Enter a number 2: (C++ test cases)

```
yuvrajpant@Yuvrajs-MacBook-Pro Question_2 % g++ -std=c++11 BracketBalancer.cpp -o Prog.out && .
/Prog.out
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE *********
*****
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE ***********
**
Enter a Number: 2
Enter the balancing symbol for C++ Language: /**/{x+y}(x=y)
The expression entered by user is: /**/{x+y}(x=y)
Cleaned tokens: /* */ { } ( )
Balanced
```

```
yuvrajpant@Yuvrajs-MacBook-Pro Question_2 % g++ -std=c++11 BracketBalancer.cpp -o Prog.out && .
/Prog.out
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE *********
*****
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE ***********
**
Enter a Number: 2
Enter the balancing symbol for C++ Language: */()[x-y]{}
The expression entered by user is: */()[x-y]{}
Cleaned tokens: */ ( ) [ ] { }
Unbalanced
```

```
yuvrajpant@Yuvrajs-MacBook-Pro Question_2 % g++ -std=c++11 BracketBalancer.cpp -o Prog.out && .
/Prog.out
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE *********
*****
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE ***********
**
Enter a Number: 2
Enter the balancing symbol for C++ Language: ()[]{}
The expression entered by user is: ()[]{}
Cleaned tokens: ( ) [ ] { }
Balanced
```

Test Cases for JAVA:

Enter number 1 for pascal test cases:

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE
 *********
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE **
*******
Enter a number: 1
Enter the balancing symbol for PASCAL Language: begin(x=y)(h-y)end
The expression entered by the user is: begin(x=y)(h-y)end
[begin, (, ), (, ), end]
Balanced
```

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE
 *********
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE **
*******
Enter a number: 1
Enter the balancing symbol for PASCAL Language: beginend(x=y)[]}}}{{{
The expression entered by the user is: beginend(x=y)[]}}}{{{
[begin, end, (, ), [, ], }, }, }, {, {, {]
Unbalanced
```

```
********** ENTER number {1} TO CHECK FOR BALANCING SYMBOLS IN THE PASCAL LANGUAGE
 *********
********** ENTER number {2} TO CHECK FOR BALANCING SYMBOLS IN THE C++ LANGUAGE **
*******
Enter a number: 1
Enter the balancing symbol for PASCAL Language: beginend()_[]{}
The expression entered by the user is: beginend()_[]{}
[begin, end, (, ), [, ], {, }]
Balanced
```

Enter number 2 for C++ test cases: