

JAVA PROGRAM-BALANCED BRACKET

```
package pppp;
import java.util.Scanner;
import java.util.Stack;

public class Expression {

    public static void main(String[] args) {
        boolean flag = false;
        Stack<Character> input = new Stack<Character>();
        System.out.println("Enter your String to check:");
        Scanner scanner = new Scanner(System.in);
        String sinput = scanner.nextLine();
        char[] c = new char[15];
        c = sinput.toCharArray();
        for (int i = 0; i < c.length; i++) {
            if (c[i] == '{' || c[i] == '(' || c[i] == '[')
                input.push(c[i]);
            else if (c[i] == ']') {
                if (input.pop() == '[') {
                    flag = true;
                    continue;
                } else {
                    flag = false;
                    break;
                }
            } else if (c[i] == ')') {
                if (input.pop() == '(') {
                    flag = true;
                    continue;
                } else {
                    flag = false;
                    break;
                }
            } else if (c[i] == '}') {
                if (input.pop() == '{') {
                    flag = true;
                    continue;
                } else {
                    flag = false;
                    break;
                }
            }
        }
        if (flag == true)
            System.out.println("balanced");
        else
            System.out.println("Unbalanced");
        scanner.close();
    }
}
```

OUTPUT

```
File Edit Source Refactor Navigate Search Project Run Window Help
[Icons]
Console
<terminated> Expression [Java Application] C:\Program Files\Java\jre1.8.0_221\bin\java.exe (28-May-2020, 12:15:36 PM)
Enter your String to check:
[()]
Unbalanced
```

```
File Edit Source Refactor Navigate Search Project Run Window Help
[Icons]
Console
<terminated> Expression [Java Application] C:\Program Files\Java\jre1.8.0_221\bin\java.exe (28-May-2020, 12:14:34 PM)
Enter your String to check:
[{}()]
balanced
```