

# JAVA EXAMPLES - STRING REVERSAL USING STACK

[http://www.tutorialspoint.com/javaexamples/data\\_reverse.htm](http://www.tutorialspoint.com/javaexamples/data_reverse.htm)

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## Problem Description:

How to reverse a string using stack ?

## Solution:

Following example shows how to reverse a string using stack with the help of user defined method StringReverserThroughStack.

```
import java.io.IOException;

public class StringReverserThroughStack {
    private String input;
    private String output;
    public StringReverserThroughStack(String in) {
        input = in;
    }
    public String doRev() {
        int stackSize = input.length();
        Stack theStack = new Stack(stackSize);
        for (int i = 0; i < input.length(); i++) {
            char ch = input.charAt(i);
            theStack.push(ch);
        }
        output = "";
        while (!theStack.isEmpty()) {
            char ch = theStack.pop();
            output = output + ch;
        }
        return output;
    }
    public static void main(String[] args)
    throws IOException {
        String input = "Java Source and Support";
        String output;
        StringReverserThroughStack theReverser =
        new StringReverserThroughStack(input);
        output = theReverser.doRev();
        System.out.println("Reversed: " + output);
    }
    class Stack {
        private int maxSize;
        private char[] stackArray;
        private int top;
        public Stack(int max) {
            maxSize = max;
            stackArray = new char[maxSize];
            top = -1;
        }
        public void push(char j) {
            stackArray[++top] = j;
        }
        public char pop() {
            return stackArray[top--];
        }
        public char peek() {
            return stackArray[top];
        }
        public boolean isEmpty() {
            return (top == -1);
        }
    }
}
```

## Result:

The above code sample will produce the following result.

```
JavaStringReversal
Reversed: 1asreveRgnirtSava1
Loading [Mathjax]/jax/output/HTML-CSS/fonts/TeX/fontdata.js
```