

JAVA EXAMPLES - IMPLEMENTATION OF STACK

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Problem Description:

How to implement stack?

Solution:

Following example shows how to implement stack by creating user defined push method for entering elements and pop method for retrieving elements from the stack.

```
public class MyStack {
    private int maxSize;
    private long[] stackArray;
    private int top;
    public MyStack(int s) {
        maxSize = s;
        stackArray = new long[maxSize];
        top = -1;
    }
    public void push(long j) {
        stackArray[++top] = j;
    }
    public long pop() {
        return stackArray[top--];
    }
    public long peek() {
        return stackArray[top];
    }
    public boolean isEmpty() {
        return (top == -1);
    }
    public boolean isFull() {
        return (top == maxSize - 1);
    }
    public static void main(String[] args) {
        MyStack theStack = new MyStack(10);
        theStack.push(10);
        theStack.push(20);
        theStack.push(30);
        theStack.push(40);
        theStack.push(50);
        while (!theStack.isEmpty()) {
            long value = theStack.pop();
            System.out.print(value);
            System.out.print(" ");
        }
        System.out.println("");
    }
}
```

Result:

The above code sample will produce the following result.

50 40 30 20 10

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