

```
class PilhaInt {
    private final int MAXIMO = 1000;
    private int topo;
    private int armazen[] = new int[MAXIMO]; // Maximum size of Stack

    public boolean isEmpty() {
        return (topo < 0);
    }

    PilhaInt() {
        topo = -1;
    }

    public boolean push(int x) {
        if (topo >= (MAXIMO - 1)) {
            System.out.println("Stack Overflow");
            return false;
        }

        else {
            armazen[++topo] = x;
            System.out.println(x + " foi empilhado na Pilha.");
            return true;
        }
    }

    public int pop()
    {
        if (topo < 0) {
            System.out.println("Stack Underflow");
            return 0;
        }
        else {
            int x = armazen[topo--];
            return x;
        }
    }

    public int peek() {
        if (topo < 0) {
            System.out.println("Stack Underflow");
            return 0;
        }
        else {
            int x = armazen[topo];
            return x;
        }
    }
}
```

