lab-6

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Write a java program using generics Show stack class for 5 integer value & 5 double value

```
import java.util.Stack;
public class stack <E> {
    (E stck[];
    int top;
    final int Size = 5;
    stack() {
     stck = (E[]) new object (size);
     top = -1;
    }
     void push)
    public int maxsize;
    public int top;
    public object [] stack Array;
    public stacks (int size) {
        maxSize = size;
        StackArray = new object (max Size);
        top = -1;
    }
public void push (T value) {
    if (top < maxSize - 1) {
        top++;
        stack Array [top] = value;
    }
    else {
        throw new Runtime Exception ("Stack is full");
    }
}
```

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```
public T pop() {
    if ( ! isEmpty()) {
        return (T) stackArray[--top];
    }
    else {
        Throw new EmptyStackException();
    }

public Boolean isEmpty () {
    return (top == -1);
}
public int size()
    {
        return top ++1;
}
public static void main (String [], args)
    {
    Stack <Integer > intstack = new stack<>();
    Stack <Double> doublestack = new stack<>();

for (int i=0 ; i<=5 ; i++) {
    {
        int Stack. push(i)
        double stack. push (double)i);
    }
System. out. println("Integer Stack");
    for (int i=0; i<=5 ; i++)
    {
        System. out. println (instack. pop());
    }
```

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```
System.out.println("Double Stack");
for(int i=0; i<=5; i++){
    System.out.println(doubleStack.pop());
}
}
```

O/P

Integer Stack

4
3
1
5
2

Double Stack

0.0
2.0
3.0
5.0
1.0

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