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**Batch: MCA B**

**Date: 31/05/2022**

**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 26**

**Aim**

Program to create a generic stack and do the Push and Pop operations.

**Procedure**

class Stack {

private int arr[];

private int top;

private int capacity;

Stack(int size) {

arr = new int[size];

capacity = size;

top = -1;

}

public void push(int x) {

if (isFull()) {

System.out.println("Stack OverFlow");

System.exit(1);

}

System.out.println("Inserting " + x);

arr[++top] = x;

}

public int pop() {

if (isEmpty()) {

System.out.println("STACK EMPTY");

System.exit(1);

}

return arr[top--];

}

public int getSize() {

return top + 1;

}

public Boolean isEmpty() {

return top == -1;

}

public Boolean isFull() {

return top == capacity - 1;

}

public void printStack() {

for (int i = 0; i <= top; i++) {

System.out.print(arr[i] + ", ");

}

}

public static void main(String[] args) {

Stack stack = new Stack(5);

stack.push(1);

stack.push(2);

stack.push(3);

System.out.print("Stack: ");

stack.printStack();

stack.pop();

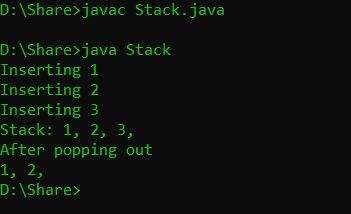
System.out.println("\nAfter popping out");

stack.printStack();

}

}

**Output Screenshot**

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