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**OBJECT ORIENTED PROGRAMING LAB**

**Experiment No.: 22**

# Aim

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

**Source Code**

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 is 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();

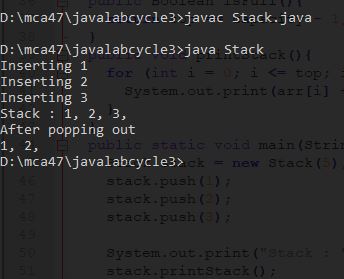
System.out.println("\nAfter popping out");

stack.printStack();

}

}

**Output Screenshot**

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