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**Batch: RMCA B**

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**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: CO4:5**

**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**

