KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

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WT - SESSIONAL

School of Computer Engineering

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Q1)

```
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("Inserted " + x +" in the stack!");
  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 display() {
  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(2);
  stack.push(7);
  stack.push(0);

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

```
    stack.display();


    stack.pop();
    System.out.println("\nAfter popping out");
    stack.display();
  }
}
```

OUTPUT: