# Data Structures
# Stack – Introduction

Team Emertxe

# Stack – Introduction

Data Structure –Stack

# Introduction

- Linear Data Structure
- Last in First out (LIFO)

Data Structure –Stack

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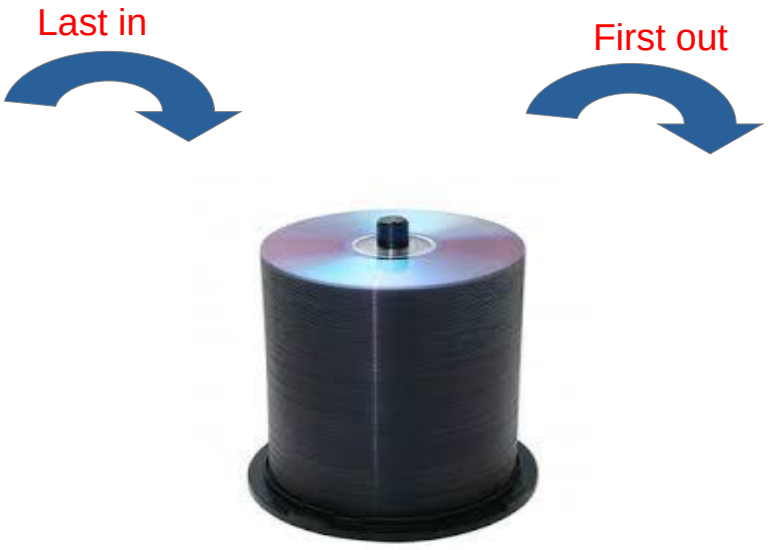
- Linear Data Structure
- Last in First out (LIFO)




DVD / CD stand

Data Structure –Stack

# Introduction

- Linear Data Structure
- Last in First out (LIFO)

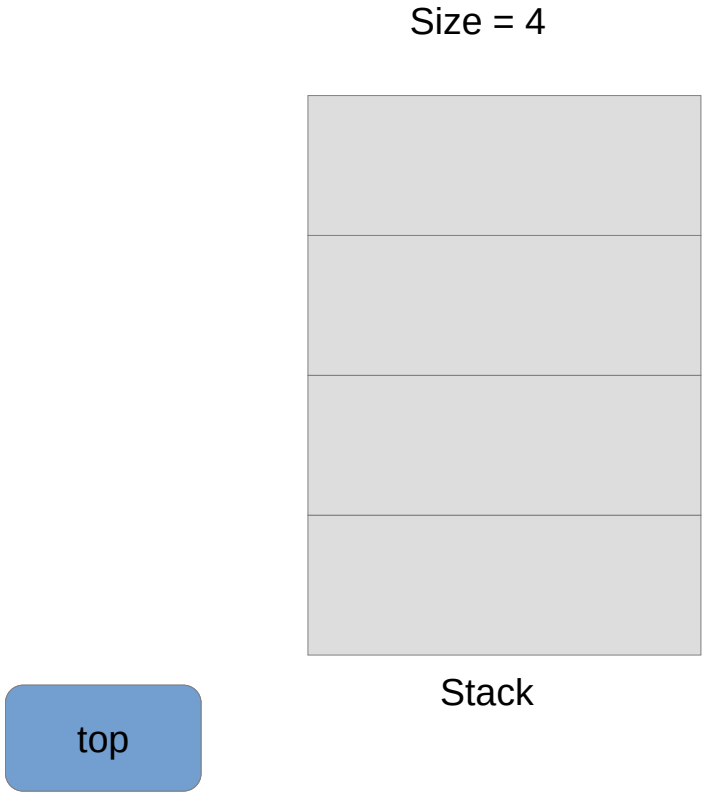
DVD / CD stand

A stack is an ordered list  which allow all data operation at one end, called the top.

EMERTXE

# Introduction

## Stack : Operations



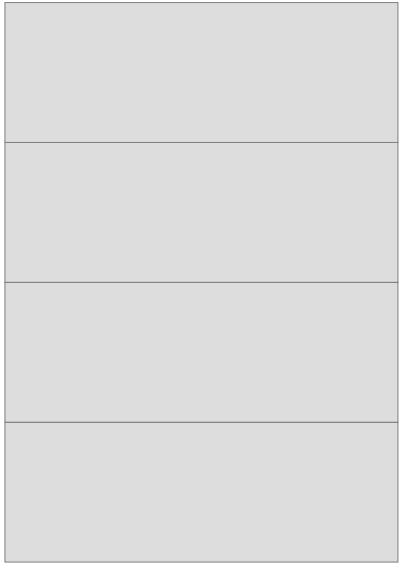
# Introduction

Push(10)

## Stack : Operations

Push Operation

Size = 4



Stack

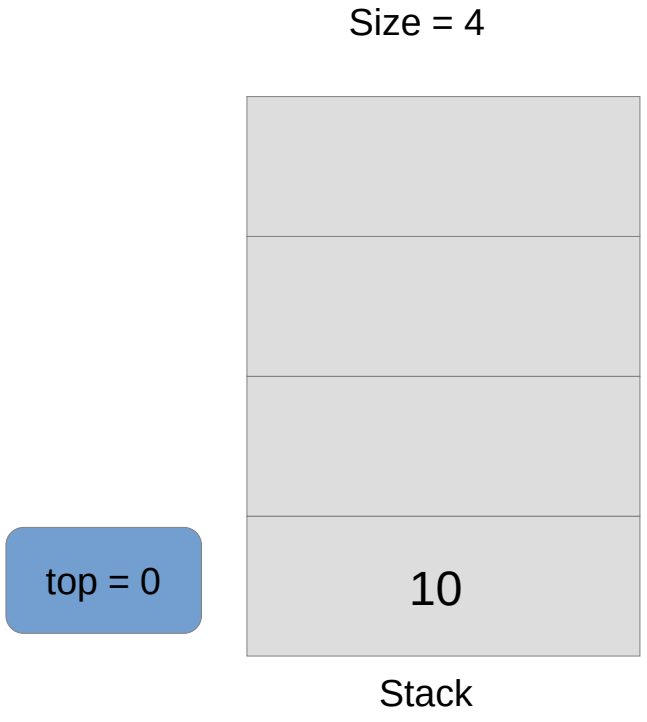
top = -1

# Introduction

Push(10)

## Stack : Operations

Push Operation

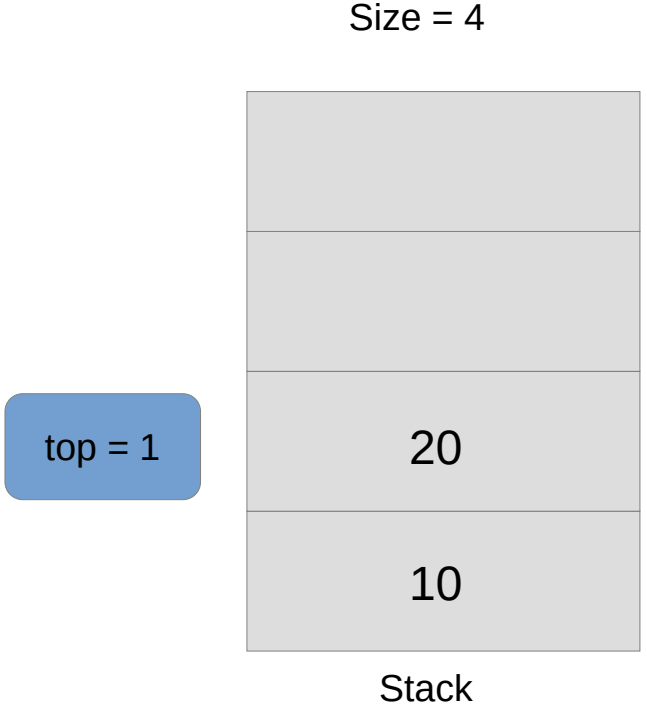


# Introduction

Push (20)

## Stack : Operations

Push Operation

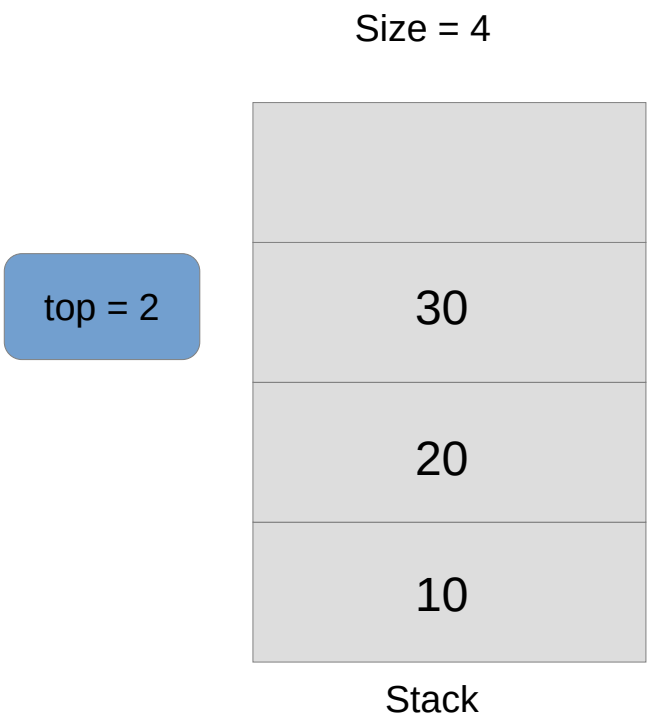


# Introduction

Push (30)

## Stack : Operations

Push Operation

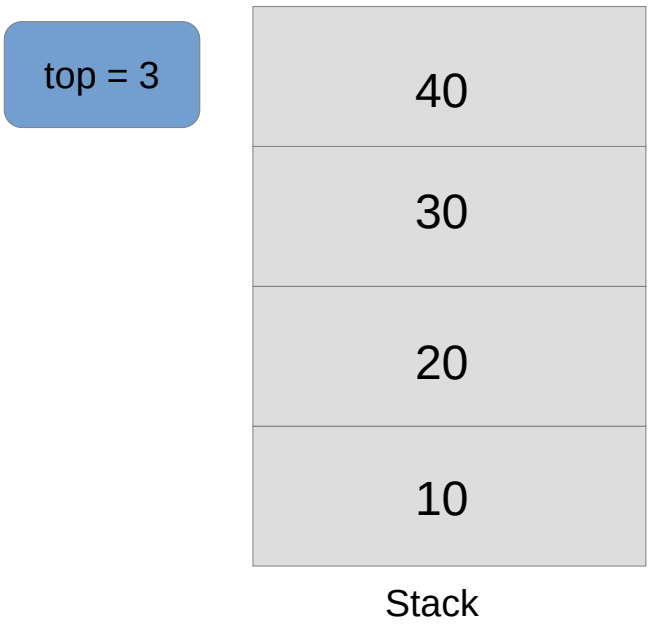


# Introduction

Push (40)

## Stack : Operations

Push Operation



# Introduction

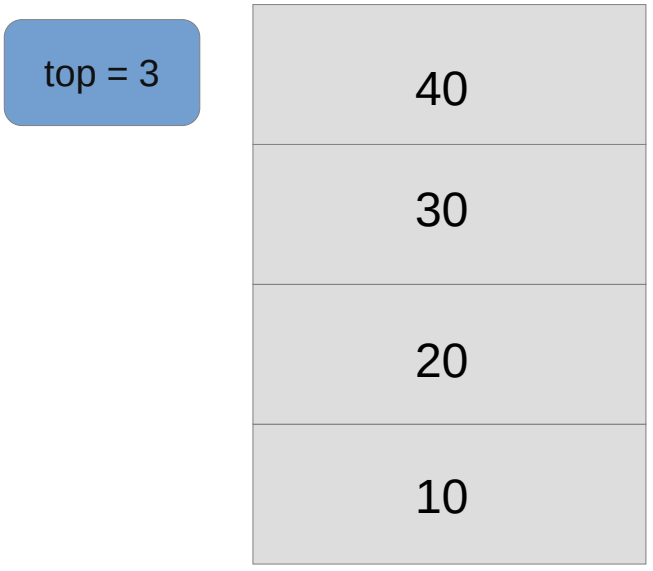
Push (50)

**Stack : Operations**

**Stack is full**

Push Operation

Size = 4

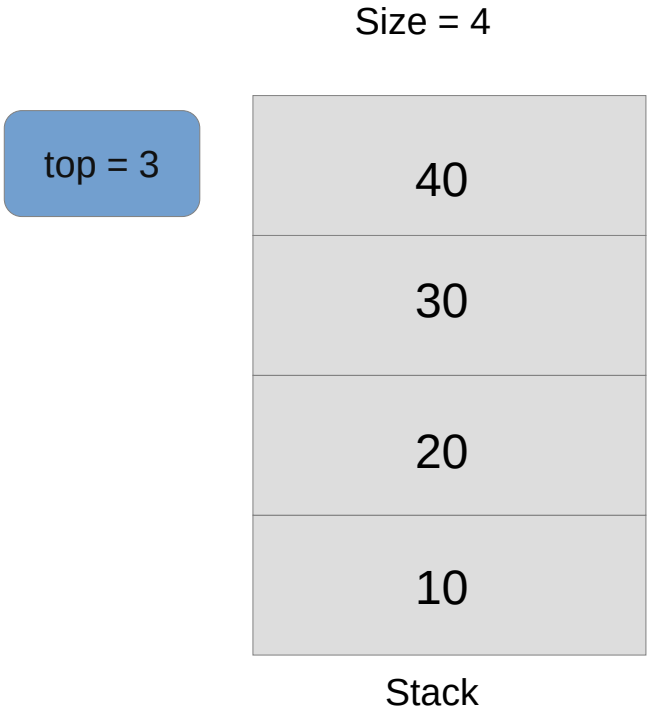



Stack

# Introduction

## Stack : Operations

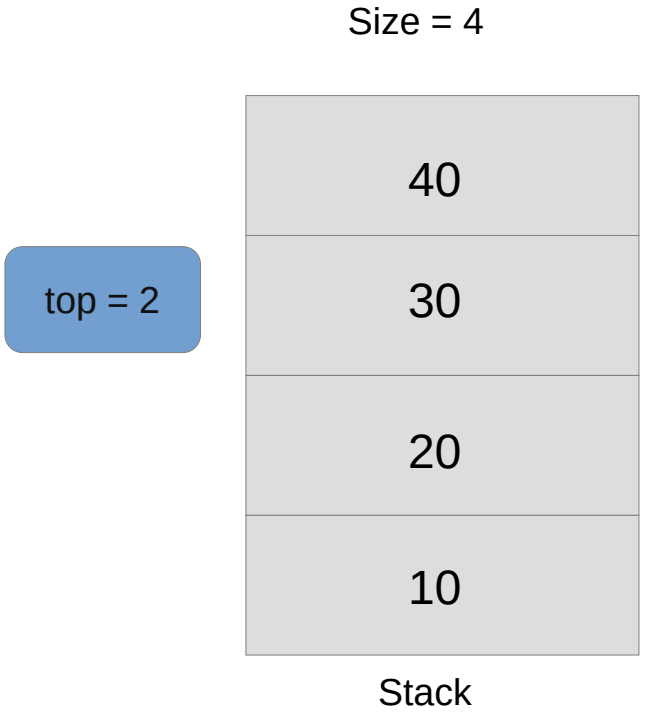
Pop Operation



# Introduction

## Stack : Operations

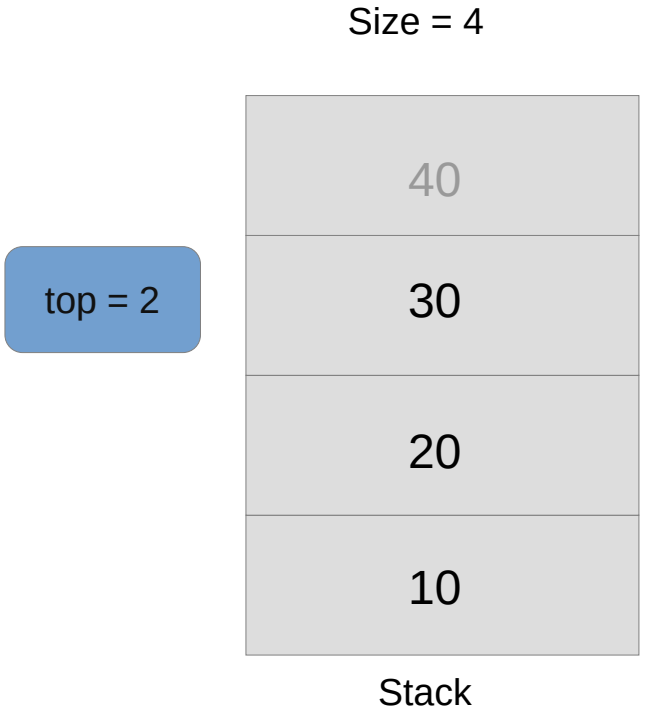
Pop Operation



# Introduction

## Stack : Operations

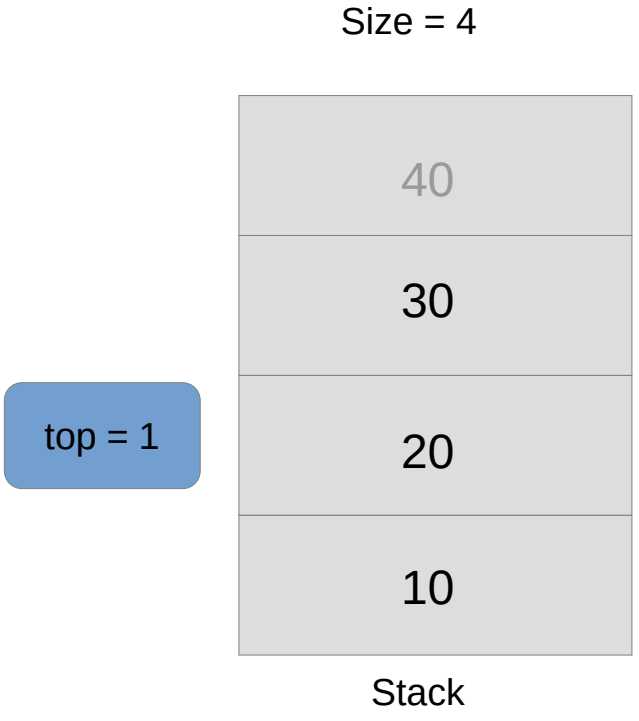
Pop Operation



# Introduction

## Stack : Operations

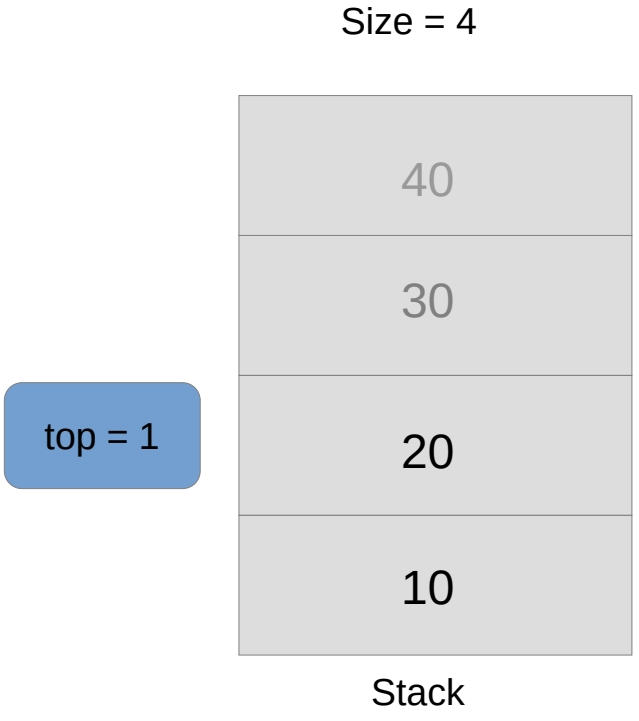
Pop Operation



# Introduction

## Stack : Operations

Pop Operation

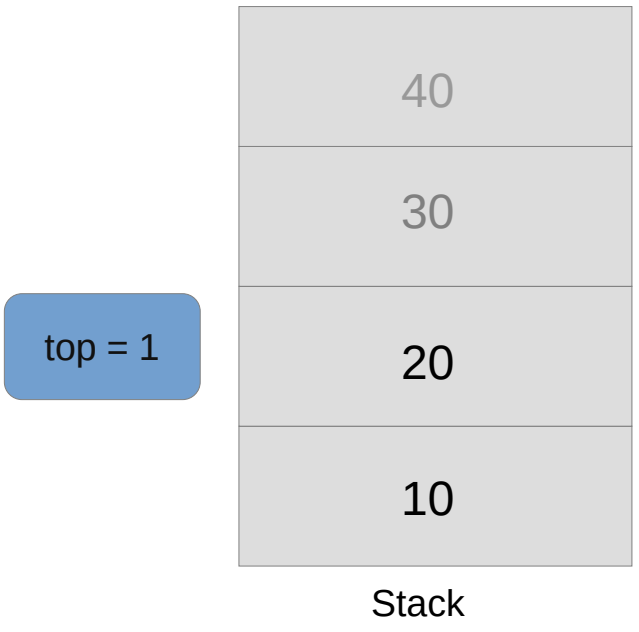


# Introduction

Push(80)

## Stack : Operations

Push Operation

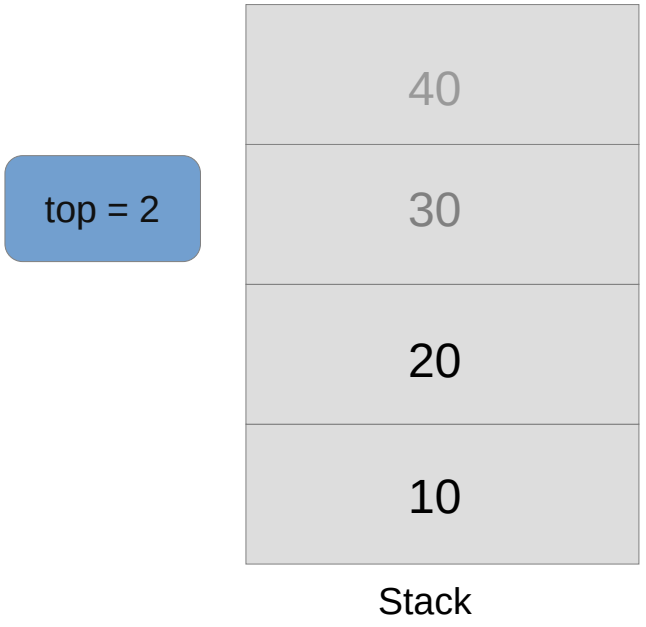


# Introduction

Push(80)

## Stack : Operations

Push Operation

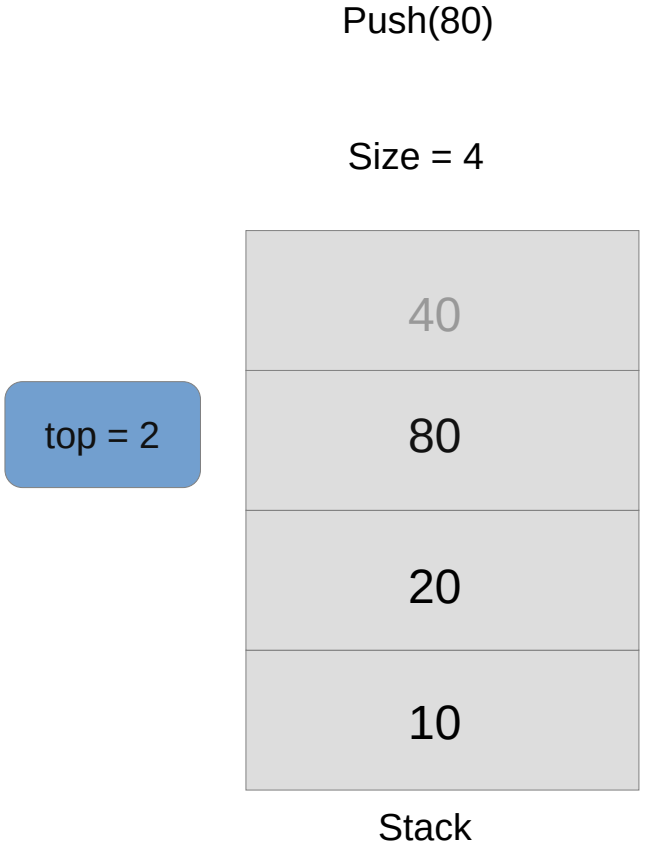


Data Structure –Stack

# Introduction

## Stack : Operations

Push Operation

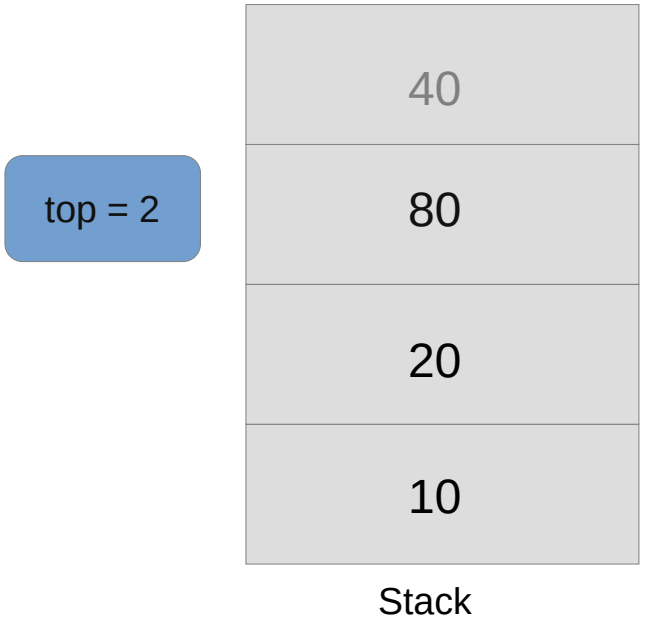


# Introduction

Push(90)

## Stack : Operations

Push Operation



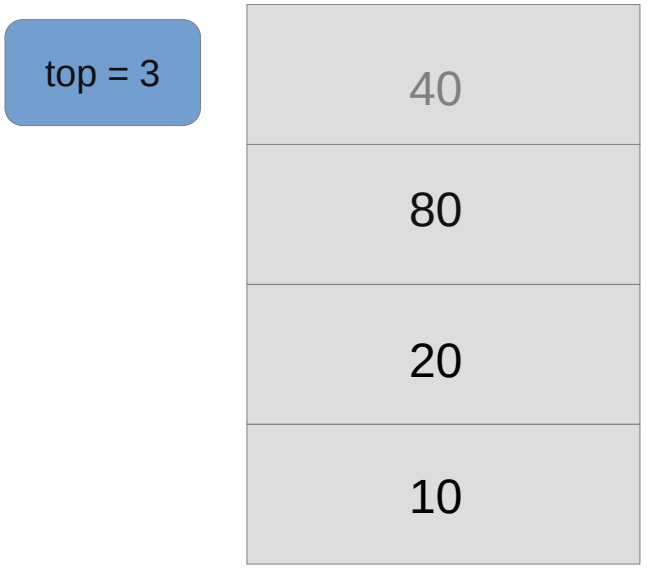
# Introduction

Push(90)

## Stack : Operations

Push Operation

Size = 4



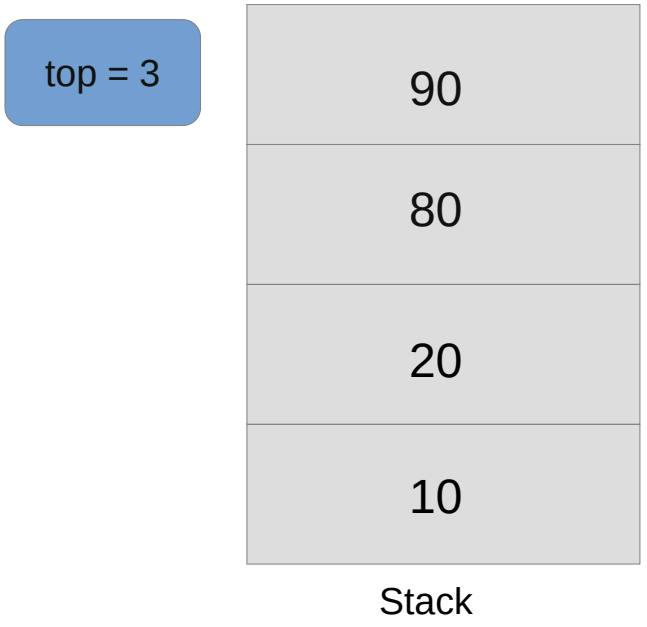

Stack

# Introduction

Push(90)

## Stack : Operations

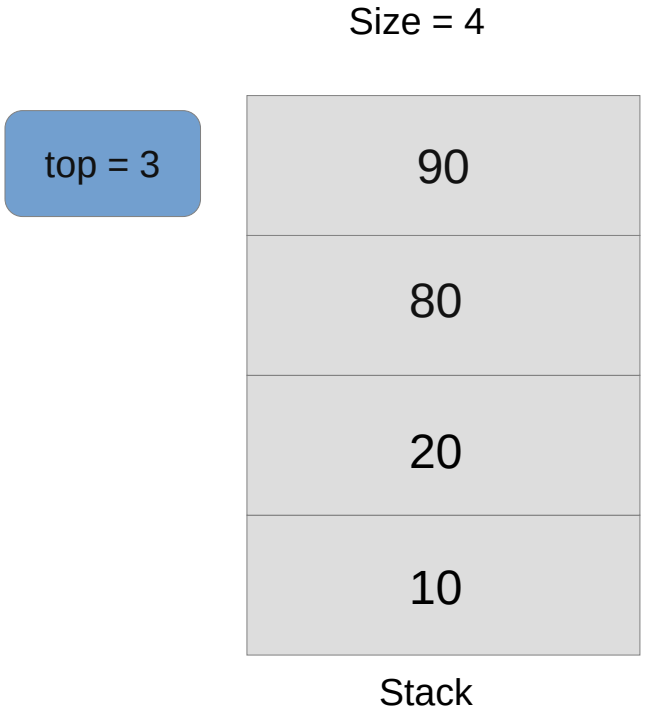
Push Operation



# Introduction

## Stack : Operations

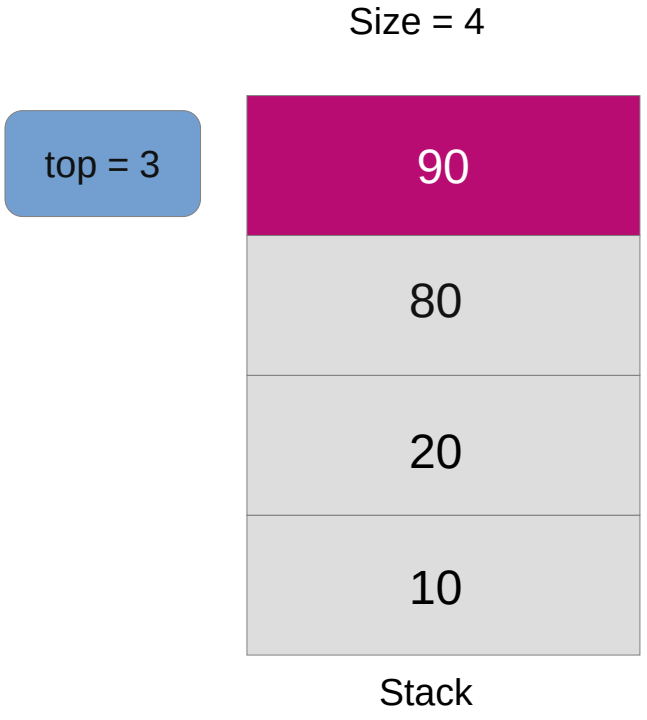
Peek Operation



# Introduction

## Stack : Operations

Peek Operation



Data Structure –Stack

# Introduction

**.Implementation**

1. Array
2. Linked List

**.Application**

Data Structure –Stack

# Introduction

- **Implementation**

1. Array
2. Linked List

- **Application**

1. Conversion of Expressions
2. Evaluation of Expressions

# Stack - Array Implementation