

# Data Structures

# Stack – Array Implementation

Team Emertxe



# Stack – Array Implementation



# Operations



Create Stack

Insert an Element

Delete an Element

Print top Element

Stack – peek(stack,element)



# peek(stack,element)



## Input Specification:

stack : Pointer that contains address of structure variable (stack\_t)

element : Pointer that contains address of an integer variable

## Output Specification:

Status : e\_true / e\_false

`peek(stack,element)`



# peek(stack,element)



size = 4

capacity

4

top

3

40

item[3]

30

item[2]

20

item[1]

10

item[0]

item

# peek(stack,element)

```
if(is_stack_empty(stack))  
    return e_false  
element = stack    →    item[stack→top]  
return e_true
```

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is\_stack\_empty(stack)

```
If (stack → top = -1)
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    return e_true
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else
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is\_stack\_empty(stack)

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```
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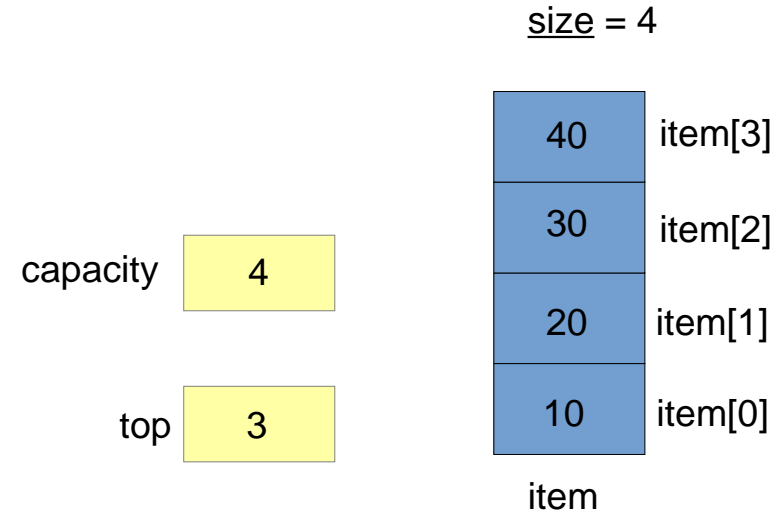
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is\_stack\_empty(stack)

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Peek element

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## peek(stack, element)



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Code -Stack Array Implementation

