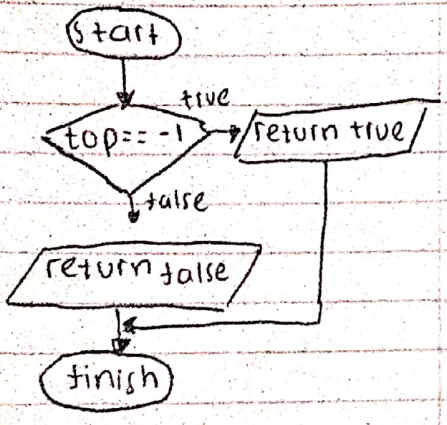
Nama: Kevin Adiputra Manesa
Nim : 09011282328115
Date 7 Nov 2023
Kelas : SK1A
Dosen : Muhammad Ali Buchari, M.T

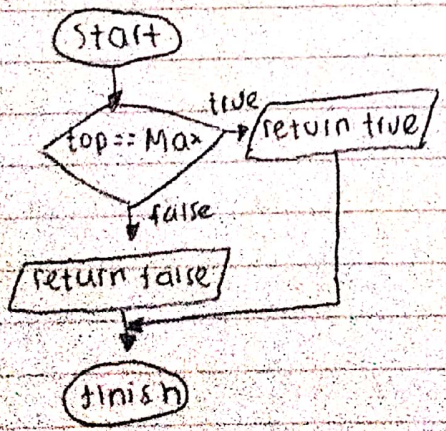
Stack data structure

Problems :
Buatlah flowchart fungsi pengelolaan stack berikut:
1) Is Empty
2) Is full
3) Push
4) Pop

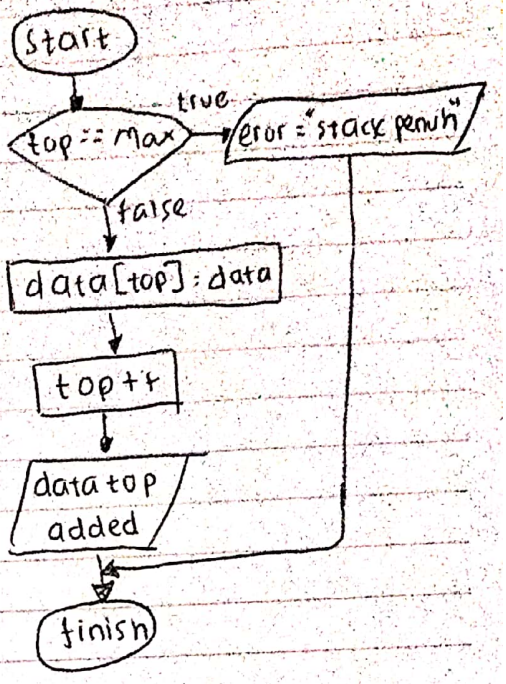
1.) Is Empty



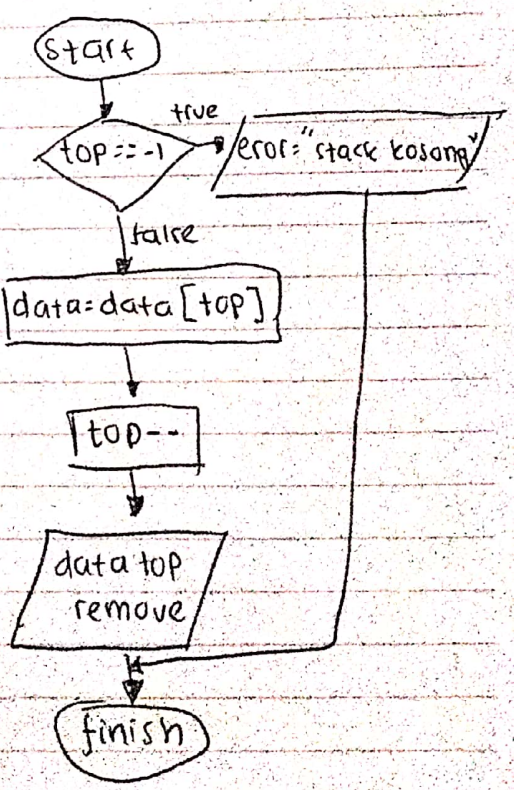
2) Is full



3.) Push



4.) Pop



Dipindai dengan CamScanner

Nama: Kevin Adiputra Mahesa
Nim: 09011282328118
7 Nov 2023
Dosen: Muhammad Ali Buchari, M.T

Problems:
Tuliskan pseudocode dari bubble sort dan quick sort!

1) Buble sort

```
Procedure BubbleSort (arr: Array of Integer)
    N <- Length Of arr
    for i from 0 to N-1
        swapped <- false
        For j from 0 to N-i-1
            if arr[j] > arr[j+1]
                swap(arr[j], arr[j+1])
                swapped <- true
            End if
        End for
    | if swapped = false, exit the loop
    End for
End procedure
```

2) Quick sort

```
Procedure QuickSort (arr: Array of Integer, start, end)
    If start < end
        pivot <- partition(arr, start, end)
        QuickSort (arr, start, pivot-1)
        QuickSort (arr, Pivot+1, end)
    End If
End Procedure

Function Partition (arr: Array of Integer, start, end)
    Pivot <- arr [end]
    PartitionIndex <- start
    for i from start to end-1
        If arr [i] <= Pivot
            Swap(arr[i], arr [PartitionIndex])
            PartitionIndex <- PartitionIndex +1
        End if
    End for
```

Dipindai dengan CamScanner

```
    Swap(arr[Partition Index], arr[end])
    return Partition Index
End function
```

Dipindai dengan CamScanner