

Answer for the TABLE

1 usage


**class** Stack:

def **\_\_init\_\_**(s):

    s.items = []

7 usages

def **push**(s, item):

 s.items.append(item)

4 usages

def **pop**(s):

    if not s.is\_empty():

        return s.items.pop()

    return None

1 usage

def **top**(s):

    if not s.is\_empty():

        return s.items[-1]

    return None

4 usages

def **is\_empty**(s):

    return len(s.items) == 0

2 usages

def **length**(s):

    return len(s.items)

```
print("Stack Data Structure")
print("Answer for TABLE:")
S = Stack()
S.push(5)
S.push(3)
print(S.length())
print(S.pop())
print(S.is_empty())
print(S.pop())
print(S.is_empty())
S.push(7)
S.push(9)
print(S.top())
S.push(4)
print(S.length())
print(S.pop())
S.push(6)
S.push(8)
print(S.pop())
print()
```

OUTPUT

```
Answer for TABLE:
2
3
False
5
True
9
3
4
8
```

FOR number 2 Questions:

class Stack:

def \_\_init\_\_(s):  
 s.items = []

9 usages

def push(s, item):  
 s.items.append(item)

8 usages

def pop(s):  
 if not s.is\_empty():  
 return s.items.pop()  
 return None

1 usage

def is\_empty(s):  
 return len(s.items) == 0

```
s = Stack()
x = []

s.push(5)
s.push(3)
x.append(s.pop())
s.push(2)
s.push(8)
x.append(s.pop())
x.append(s.pop())
s.push(9)
s.push(1)
x.append(s.pop())
s.push(7)
s.push(6)
x.append(s.pop())
x.append(s.pop())
s.push(4)
x.append(s.pop())
x.append(s.pop())

print("Answer for Second Question:")
print(x)
```

OUTPUT:

```
Answer for Second Question:
[3, 8, 2, 1, 6, 7, 4, 9]
```