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#Stack operations implementation through userdefined functions
stack = []
max = 3

#overflow Function
def overflow():
    if len(stack) >= max:
        return True
    return False

#undeflow function
def underflow():
    if len(stack) <= 0:
        return True
    return False

#push() function
def push_item(item):
    if overflow():
        return "ERROR: Stack overflow"
    stack.append(item)
    return f"{item} pushed..."

#pop() function
def pop_item():
    if underflow():
        return "Error: Stack Underflow"
    return stack.pop()
```

```
#main function
```

```
while True:
```

```
    print('1. Open Stack')
```

```
    print('2. push()')
```

```
    print('3. pop()')
```

```
    print('4. Exit()')
```

```
    operation = int(input('Operation: '))
```

```
    if operation == 1:
```

```
        print(stack)
```

```
    elif operation == 2:
```

```
        item = input('Item: ')
```

```
        print(push_item(item))
```

```
    elif operation == 3:
```

```
        print(pop_item())
```

```
    elif operation == 4:
```

```
        print('Exiting the loop...')
```

```
        break
```

```
    else:
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```
        print('Wrong Input: Please try again: ')
```

```
print('-----')
```

```
print('Program Exit Successful')
```