

NAMES: ISHIMWE Philbert

Reg no: 224016016

MODULE:DSA

Q1. Practical (Rwanda): UR pushes ["Assignment1", "Assignment2", "Assignment3"]. Pop one. Which is top now?

```
exercise 3 > first.py > ...  
1  stack = []  
2  stack.append("Assignment1")  
3  stack.append("Assignment2")  
4  stack.append("Assignment3")  
5  stack.pop()  
6  print(stack[-1])
```


ANSWER: top = "Assignment2".

Q2. Practical (Rwanda): In Irembo, push ["Upload ID", "Enter Address", "Confirm"]. Pop once. Which steps remain?

```
exercise 3 > second.py > ...  
1  stack = []  
2  stack.append("Upload ID")  
3  stack.append("Enter Address")  
4  stack.append("Confirm")  
5  print("Stack now:", stack)  
6  
7  stack.pop()  
8  print("Remaining steps:", stack)  
9  print("Top is:", stack[-1])
```

ANSWER: The remaining step is = " Enter Address ".

Q3. Challenge: Push ["A", "B", "C"], pop one, push "D". What is top?

```
exercise 3 >  third.py > ...  
1     stack = []  
2     stack.append("A")  
3     stack.append("B")  
4     stack.append("C")  
5     print("Stack now:", stack)  
6  
7     stack.pop()    # remove C  
8     print("After pop:", stack)  
9  
10    stack.append("D")  
11    print("After pushing D:", stack)  
12    print("Top is:", stack[-1])
```

ANSWER: top = "D".

Q4. Reflection: Why stack naturally models undo in apps like Irembo?

ANSWER: Because undo is exactly a **LIFO** operation: the last action the user performed is the first one you should undo.