Lab 3: Conditional

Task: Test for Short Circuit

Objective

The objective of this task is to introduce students to conditional statements in Python by testing a resistor's value. It ensures that a zero-value resistor, which can create a short circuit, is identified before use.

Task Description

The goal of this task is to check whether a resistor has a zero resistance value, which can create a short circuit and potentially damage the circuit. Students learn to use conditional statements in Python to test the resistance before use.

Procedure

Stored the resistance value in a variable.

Used an if-else statement to check if the resistance is zero.

If the value is zero, printed "Short Circuit".

Otherwise, printed "Safe".

In [2]:
```
resistance = int(input("Enter resistance value: "))

if resistance == 0:
    print("Short Circuit")
else:
    print("Safe")
```

```
Short Circuit
```

In [3]:
```
resistance = int(input("Enter resistance value: "))

if resistance == 0:
    print("Short Circuit")
else:
    print("Safe")
```

```
Safe
```