1. **Handling Servo Motor Errors Without Try-Except**

Objective

To demonstrate what happens when a servo motor receives an invalid angle input in CircuitPython **without using error handling**.

Code (Without Try-Except)

```
Mu 1.2.0 - code.py

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code.py
1  import time
2  import board
3  import pwmio
4  from adafruit_motor import servo
5
6  # Create PWM output on pin A1
7  pwm = pwmio.PWMOut(board.A1, duty_cycle=2 ** 15, frequency=50)
8
9  # Create a 180-degree Servo object
10 my_servo = servo.Servo(pwm)
11
12 while True:
13
14
15     # Move to 0 degrees
16     my_servo.angle = 0
17     print("Servo at 0°")
18     time.sleep(1)
19
20     # Move to 90 degrees
21     my_servo.angle = 90
22     print("Servo at 90°")
23     time.sleep(1)
24
25     my_servo.angle = 360  # ✗ Invalid! Will cause ValueError
26     print("Trying to set servo at 360°")
27     time.sleep(1)
28
```

2. **Step-by-Step Code Explanation**

- import time → used for adding delays
  import board → gives access to CPX board pins

import pwmio → used to create PWM signals
from adafruit_motor import servo → imports the servo control library

- pwm = pwmio.PWMOut(board.A1, duty_cycle=2 ** 15, frequency=50)
  → creates a PWM signal on pin A1 for controlling the servo

- my_servo = servo.Servo(pwm)
  → creates a servo object that can move from 0° to 180°

- while True:
  → runs the code continuously in an infinite loop

- my_servo.angle = 0
  → moves the servo to 0 degrees
  time.sleep(1) → waits for 1 second

- my_servo.angle = 90
  → moves the servo to 90 degrees
  time.sleep(1) → waits for 1 second

- my_servo.angle = 360
  → tries to move the servo to 360°, which is **not possible** (max is 180°)
  → this line will cause a **ValueError**
  time.sleep(1) → waits for 1 second

- **Expected Outcome**

- The program will run normally for:
  - ✔ 0°
  - ✔ 90°
  - ✔ 180°

- When the program tries:
  ✕**360°**
  the servo cannot move there and CircuitPython raises a **ValueError**.

- Since there is **no try-except**, the script **stops immediately** and the remaining code is not executed.