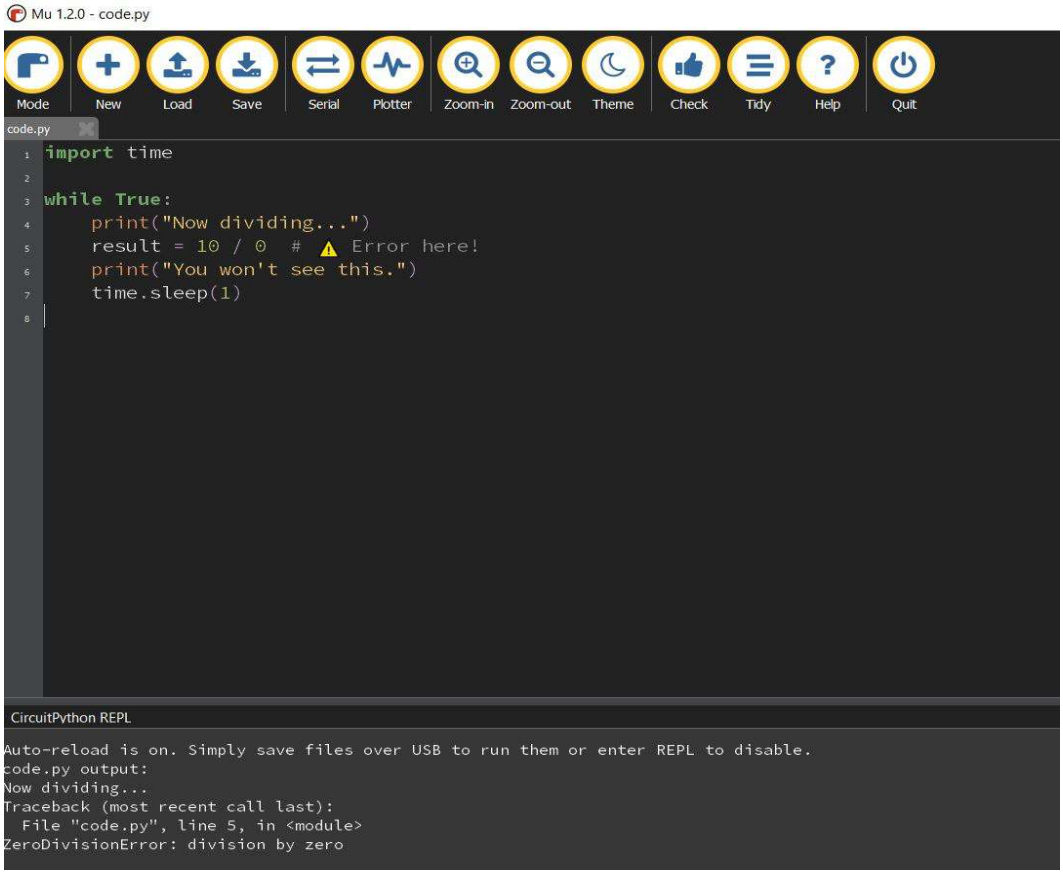
Try-Except block in CircuitPython

Objective

Understand how to use try-except blocks inside a loop in CircuitPython to prevent crashes and handle errors gracefully.

Without Try-Except

Let us execute this code in MuEditor and observe the output.



In this version, the program crashes after the first error, and the loop stops completely.

Code Example with Try-Except

Now let us wrap the statement inside a try-except block and observe what happens

Code Explanation

import time

Imports the `time` module. ⏱Used for adding delay between servo movements.

import board:

Imports the `board` module to use specific hardware pins. For example, `board.A1` refers to pin A1.

import pwmio

Imports `pwmio` to enable PWM output.Required for controlling servo motors.

from adafruit_motor import servo

Imports the servo class from Adafruit motor library.Allows easy control of standard servo angles

my_servo = servo.Servo(pwm)"

Creates a Servo object connected to the PWM signal.Enables angle control from 0° to 180°.

import time

Loads the time module

while True:

Creates an infinite loop — this block will repeat forever.

try:

Begins a try block, which means “try this and see if an error happens.”

print("Now dividing...")

Shows this message before doing the calculation.

result = 10 / 0 # Error: divide by zero

Still causes an error, but now it will be caught safely.

print("You won't see this.")

This is skipped if an error occurs.

except Exception as e:

Catches the error and stores the details in a variable e.

print("Error happened:", e)

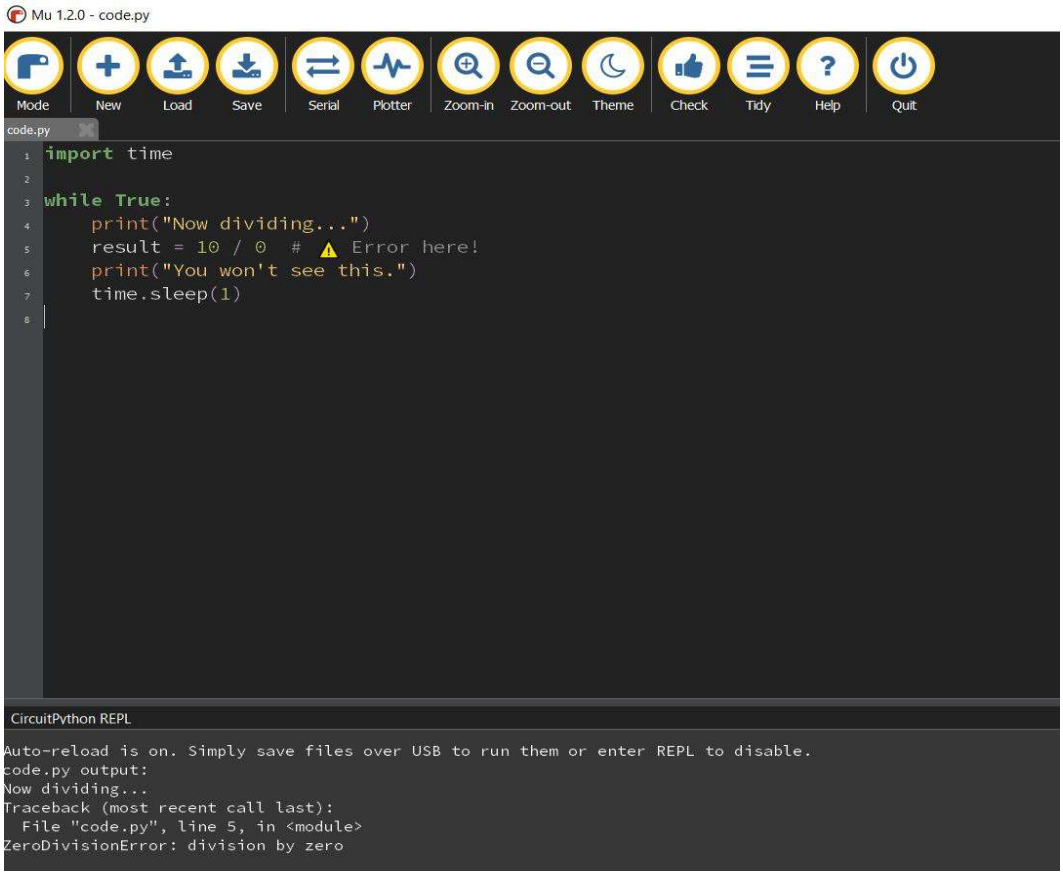
Displays the error message without crashing the program.

time.sleep(1)

Program waits 1 second, then repeats the loop safely.

Expected Output

The message 'Now dividing...' is printed.
Then the error occurs (division by zero), and the program jumps to the except block.
'You won't see this.' is skipped because of the error.
The error message is printed, and the loop continues.


Mu 1.2.0 - code.py
Mode
New
Load
Save
Serial
Plotter
Zoom-in
Zoom-out
Theme
Check
Tidy
Help
Quit
code.py
import time
while True:
print("Now dividing...")
result = 10 / 0 # Error here!
print("You won't see this.")
time.sleep(1)
CircuitPython REPL
Auto-reload is on. Simply save files over USB to run them or enter REPL to disable.
code.py output:
Now dividing...
Traceback (most recent call last):
File "code.py", line 5, in <module>
ZeroDivisionError: division by zero