TX00FL42-3001

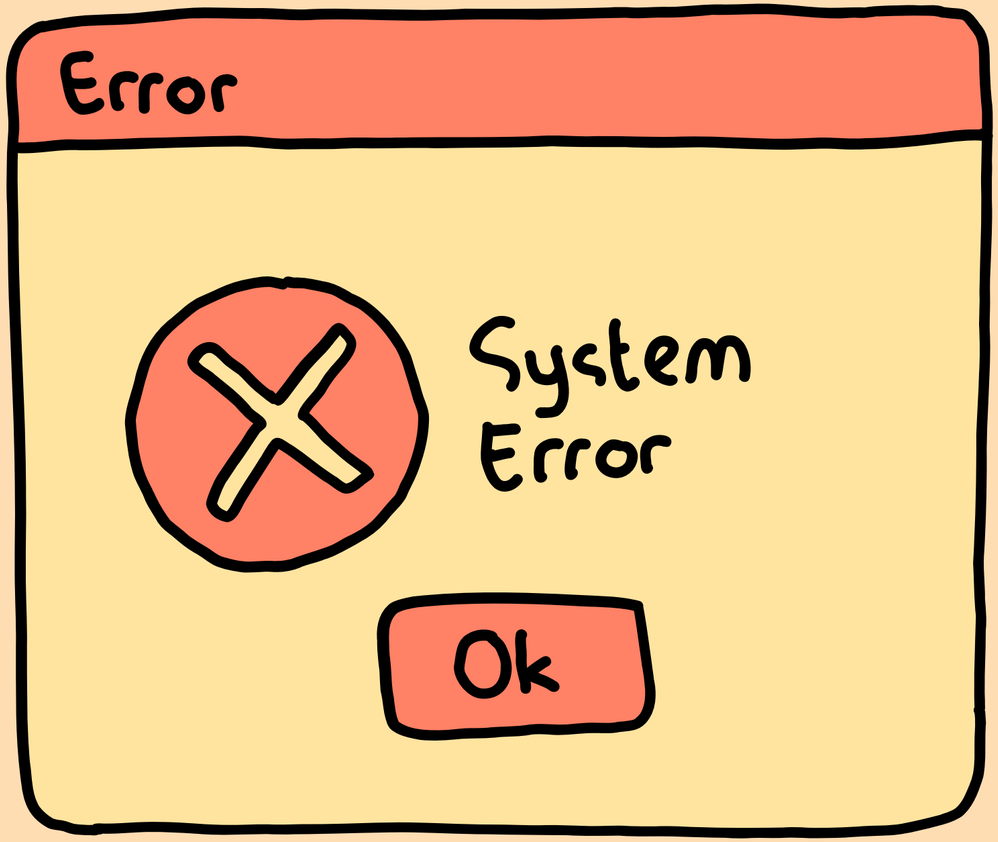
ERROR HANDLING

MUATH OTHMAN

WHAT IS ERROR HANDLING?

Our code needs to be prepared for situations when unexpected input from users occurs, division by zero occurs, or a variable name is written incorrectly. To prevent unexpected events from crashing or having unexpected outcomes, error handling involves putting in place methods to identify, report, and manage problems.

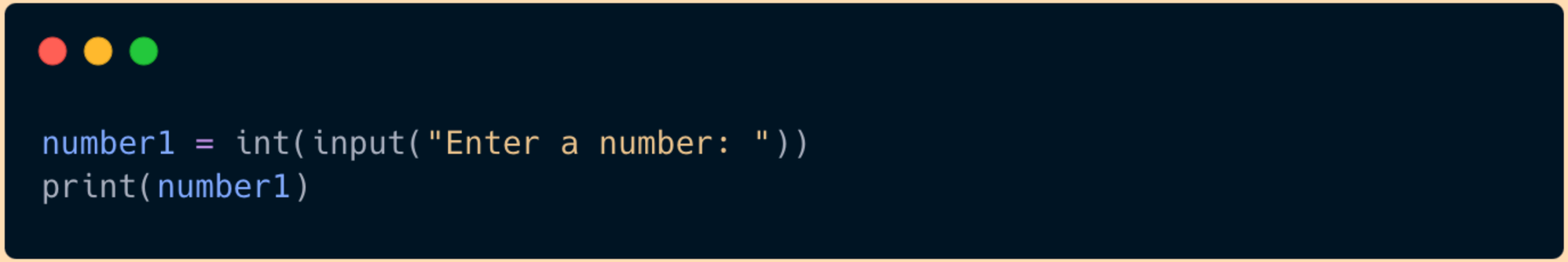
LET'S TAKE EXAMPLE



EXAMPLE: MAIN

```
number1 = int(input("Enter a number: "))
print(number1)
```

EXAMPLE:
MAIN



```
number1 = int(input("Enter a number: "))
print(number1)
```

LET’S PUT CHARACTER INSTEAD OF NUMBER

EXAMPLE: CONSOLE

```
Enter a number: muath
Traceback (most recent call last):
  File "/Users/muathkhaleel/IdeaProjects/Lecture5/tryCatch.py", line 1, in <module>
    number1 = int(input("Enter a number: "))
ValueError: invalid literal for int() with base 10: 'muath'
```

EXAMPLE: CONSOLE

```
Enter a number: muath
Traceback (most recent call last):
  File "/Users/muathkhaleel/IdeaProjects/Lecture5/tryCatch.py", line 1, in <module>
    number1 = int(input("Enter a number: "))
ValueError: invalid literal for int() with base 10: 'muath'
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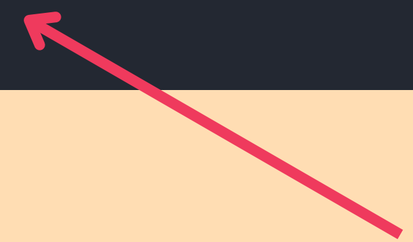


NAME OF THE ERROR

HOW TO SOLVE IT?

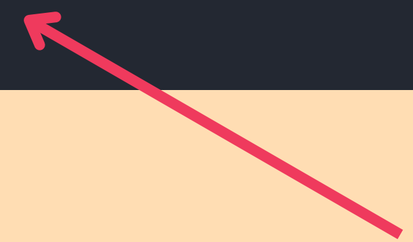
SOLUTION

```python
number1 = input("Enter a number: ")

# Check manually for each numeric value
if number1 == "0":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "1":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "2":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "3":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "4":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "5":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "6":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "7":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "8":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
elif number1 == "9":
    number1 = int(number1)
    print(f"You entered the number: {number1}")
else:
    print("Invalid input! Please enter a valid number, not a character.")
```

EXAMPLE: CONSOLE

```
Enter a number: muath
Traceback (most recent call last):
  File "/Users/muathkhaleel/IdeaProjects/Lecture5/tryCatch.py", line 1, in <module>
    number1 = int(input("Enter a number: "))
ValueError: invalid literal for int() with base 10: 'muath'
```



NAME OF THE ERROR

BETTER SOLUTION

```
try:
    x = int(input("Please enter a number: "))
    print(x)
except ValueError:
    print("Oops!  That was no valid number.  Try again...")
```

LET'S CONTINUE OUR TVMAZE APP