Lecture09

October 8, 2024

[1]:
```
x = 1/0
```

```
---------------------------------------------------------------------------
ZeroDivisionError                         Traceback (most recent call last)
Cell In[1], line 1
----> 1 x = 1/0

ZeroDivisionError: division by zero
```

[4]:
```
try:
    x = 1/0
except ZeroDivisionError as e:
    print(f"Error: {e}")
```

```
Error: division by zero
```

[15]:
```
filename = input("Enter a filename: ")
try:
    infile = open(filename, "r")
    contents = infile.read()
    print(contents)
    infile.close()
except IOError:
    print('An error occurred trying to read')
    print('the file', filename, 'not found.')
```

```
An error occurred trying to read
the file data1.txt not found.
```

[24]:
```
try:
    value = int(input("Enter a number: "))
    result = 10 / value
    print(f"result: {result:.2f}")
except ValueError:
    print('Invalid input! Please enter a number.')
except ZeroDivisionError:
    print('Cannot divide by zero!')
```

```
Invalid input! Please enter a number.
```

[25]:
```python
try:
    value = int(input("Enter a number: "))
    result = 10 / value
except Exception as e:
    print(f"An error occurred: {e}")
```

```
An error occurred: invalid literal for int() with base 10: 'k'
```

[8]:
```python
try:
    value = int(input("Enter a number: "))
    result = 10 / value
except ZeroDivisionError:
    print('Cannot divide by zero!')
except ValueError:
    print('Invalid input! Please enter a number.')
except Exception as e:
    print(f"An error occurred: {e}")
else:   # no exception occurred
    print(f"The result is {result:.2f}")
```

```
Invalid input! Please enter a number.
```

[11]:
```python
try:
    numerator = float(input("Enter the numerator: "))
    denominator = float(input("Enter the denominator: "))
    result = numerator / denominator

except ZeroDivisionError:
    print("Error: You can't divide by zero.")

except ValueError:
    print("Error: Invalid input. Please enter numeric values.")

else:
    print(f"The result is {result:.2f}")

finally:
    print("Excuteion completed, whether an exception occurred or not.")
```

```
The result is 9.00
Excuteion completed, whether an exception occurred or not.
```

[38]:
```python
def devide(a, b):
    return a / b

a, b = map(int, input("Enter two numbers: ").split())
print(devide(a, b))
```

```
---------------------------------------------------------------------------
ZeroDivisionError                         Traceback (most recent call last)
Cell In[38], line 5
      2     return a / b
      4 a, b = map(int, input("Enter two numbers: ").split())
----> 5 print(devide(a, b))

Cell In[38], line 2, in devide(a, b)
      1 def devide(a, b):
----> 2     return a / b

ZeroDivisionError: division by zero
```

[49]:
```
a, b = map(int, input("Input 2 integer values: ").split())

def divide(a, b):
    try:
        result = a / b
    except ZeroDivisionError:
        print("division by zaro!")
    else:
        return result
    finally:
        print("executing finally clause")

print(format(divide(a, b), ".2f"))
```

```
executing finally clause
3.33
```