

Errors and Exceptions

January 23, 2022

1 Errors and Exceptions:

```
[1]: def add(a,b):  
      print(a+b)
```

```
[2]: add(2,3)
```

5

```
[6]: a = 5  
      b = input("Enter a number: ")
```

Enter a number: 20

```
[7]: add(a,b)  
      print("error")
```

```
-----  
TypeError                                Traceback (most recent call last)  
~\AppData\Local\Temp\ipykernel_4032\551075305.py in <module>  
----> 1 add(a,b)  
      2 print("error")  
  
~\AppData\Local\Temp\ipykernel_4032\768727781.py in add(a, b)  
      1 def add(a,b):  
----> 2     print(a+b)  
  
TypeError: unsupported operand type(s) for +: 'int' and 'str'
```

```
[8]: try:  
      # want to attempt this code  
      # May have an error  
      result = 10 + 10  
except:  
      print("Incorrect addition")
```

```
[9]: result
```

```
[9]: 20
```

```
[14]: try:
      result = 10 + '10'
      except:
          print("Incorrctet addition")
```

Incorrctet addition

```
[15]: try:
      result = 10 + '10'
      except:
          print('Incorrect addition')
      else:
          print('Add went well')
          print(result)
```

Incorrect addition

```
[16]: try:
      result = 10 + 10
      except:
          print('Incorrect addition')
      else:
          print('Addition is correct')
          print(result)
```

Addition is correct
20

2 Example 1

```
[17]: try:
      f = open('testfile','w') # write enabled file
      f.write("This is a test line")
      except TypeError:
          print('There is a type error')
      except OSError:
          print('There is an OS error')
      finally:
          print('I always run')
```

I always run

```
[18]: try:
      f = open('testfile','r') # only read is enabled
      f.write('This is another test line')
```

```
except TypeError:
    print('There is a type error')
except OSError:
    print('There is an OS error')
finally:
    print('I always run')
```

There is an OS error
I always run

3 Example 2

```
[21]: def ask_for_int():
      try:
          result = int(input('Enter a number: '))
      except:
          print('Whoops! This is not a number')
      finally:
          print('End of try/except/finally')
```

```
[22]: ask_for_int()
```

Enter a number: 10
End of try/except/finally

```
[23]: ask_for_int()
```

Enter a number: k1
Whoops! This is not a number
End of try/except/finally

```
[ ]:
```