



# Error Handling

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## Program

```
print(x)
```

## Output

```
Traceback (most recent call last):
```

```
  File "C:\Users\VSITR\PycharmProjects\pythonProject\main.py", line 1, in <module>
```

```
    print(x)
```

```
NameError: name 'x' is not define
```

## Program

```
try:
```

```
    print(x)
```

```
except:
```

```
    print("An exception occurred")
```

## Output

```
An exception occurred
```

## Program

```
a = [1, 2, 3]
```

```
try:
```

```
    print ("Second element = %d" %(a[1]))
```

```
    print ("Fourth element = %d" %(a[3]))
```

```
except:
```

```
    print ("An error occurred")
```

## Output / Error

```
Second element = 2
```

```
An error occurred
```



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## Program

```
a = 10
b = 0
print (a/b)
```

## Output / Error

```
ZeroDivisionError Traceback (most recent call last)
<ipython-input-3-57a7363b4947> in <module>
      1 a = 10
      2 b = 0
----> 3 print (a/b)
ZeroDivisionError: division by zero
```

## Program

```
a = 10
b = 0
try:
    print (a/b)
except ZeroDivisionError:
    print("Can't divide by zero")
```

## Output / Error

```
Can't divide by zero
```

## Program

```
a = 10
b = 0
try:
    print (a/b)
except ZeroDivisionError:
    print("Can't divide by zero")
finally:
    print('This always gets executed')
```

## Output / Error

```
Can't divide by zero
This always gets executed
```



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## Program

```
try:
    a = int(input("Enter a positive integer: "))
    if a <= 0:
        raise ValueError("That is NOT a positive number!")
    else:
        print("This is a positive number!")
except ValueError as ve:
    print(ve)
```

## Output

```
Enter a positive integer: 10
This is a positive number!
```

```
Enter a positive integer: -10
That is NOT a positive number!
```



# I/O Handling

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## Program

```
file = open('sample.txt', 'r')  
print('The file name is: ', file.name)
```

## Output / Error

```
Traceback (most recent call last):  
  File "C:\Users\VSITR\PycharmProjects\pythonProject\main.py", line 1, in <module>  
    file = open('sample.txt', 'r')  
FileNotFoundError: [Errno 2] No such file or directory: 'sample.txt'
```

## Program

```
try:  
    file = open('sample.txt', 'r')  
    print('File found!!!')  
  
except IOError:  
    print('File not found!!!')
```

## Output / Error

```
File not found!!!
```



# I/O Handling

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## Program

```
num = [3, 4, 5, 7]
try:
    if len(num) > 3:
        raise Exception(f"Length of the given list must be less than or equal to 3 but is {len(num)}")
except Exception as ex:
    print(ex)
```

## Output

Length of the given list must be less than or equal to 3 but is 4  
File Management

## Program

```
file1 = open("myfile.txt", "w")
L = ["VSITR Kadi \n", "KSV Gandhinagar \n", "SVKM Kadi \n"]
# Writing data to a file
file1.write("Hello \n")
file1.writelines(L)
file1.close()
```

## Output [Contents of myfile.txt (in the same folder)]

Hello  
VSITR Kadi  
KSV Gandhinagar  
SVKM Kadi



# I/O Handling

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## Program

```
file1 = open("myfile.txt", "r+")
print("Output of Read function is ")
print(file1.read())
print()
```

## Output

```
Hello
VSITR Kadi
KSV Gandhinagar
SVKM Kadi
```

## Program

```
file1 = open("myfile.txt", "r+")
file1.seek(0)
print("Output of Readline function is ")
print(file1.readline())
print()
```

## Output

```
Hello
```

## Program

```
file1 = open("myfile.txt", "r+")
file1.seek(0)
print("Output of Read(9) function is ")
print(file1.read(9))
print()
```

## Output

```
Hello
VS
```

## Program

```
file1 = open("myfile.txt", "r+")
file1.seek(0)
print("Output of Readlines function is ")
print(file1.readlines())
print()
```

## Output

```
['Hello \n', 'VSITR Kadi \n', 'KSV
Gandhinagar \n', 'SVKM Kadi \n']
```