file handling and error handling in python

```
file=open("/content/ranjita.txt","r")
print(file.read())
file.close()
```

```
good luck
yrgfjdsghdj
jhireyvhfjd,kd
bfheukwyfureg
jkdlruhgtgh
jekryurgjdg
irghhhhhhvnurl
```

```
file=open("/content/ranjita.txt","r")
content=file.read()
print(content)
file.close()
```

```
python is awesome!
python is easy to learn.
```

writing file

```
file=open("/content/ranjita.txt","w")
file.write("hello,world!\n")
file.close()
```

append file

```
file=open("/content/ranjita.txt","a")
file.write("hey who are u")
file.close()
```

using with statement

```
with open("/content/ranjita.txt","r") as file:
  data=file.read()
  print(data)
```

```
hello,world!
hey who are u
```

file handling

```
with
open("/content/3a56277579a711ee814c92669a1675b3_upscaled.jpeg","rb")as
```

```
file:
  data=file.read()
```

error handling

```
try:
  num=int(input("enter a number:"))
  print(10/num)
except ZeroDivisionError:
  print("cannot divide by zero")
except ValueError:
  print("invalid input!please enter a valid number")
```

```
enter a number:20
0.5
```

finally block

```
try:
  file=open("/content/ranjita.txt","r")
  print(file.read())
except FileNotFoundError:
  print("file not found")
finally:
  print("execution complete.")
```

```
hello,world!
hey who are u
execution complete.
```

raising exception

```
def check_age(age):
  if age<18:
    raise ValueError("agg must be 18 or older.")
  return true
try:
    check_age(16)
except ValueError as e:
    print(e)
```

```
agg must be 18 or older.
```

reading and writing to file

```
with open("/content/ranjita.txt","w")as file:
  file.write("python is awesome!\n")
```

```
with open("/content/ranjita.txt","r")as file:
  print(file.read())
```

```
python is awesome!
```

append data file

```
with open("/content/ranjita.txt","a")as file:
  file.write("python is easy to learn.\n")

with open("/content/ranjita.txt","r")as file:
  print(file.read())
```

```
python is awesome!
python is easy to learn.
```

handling division by zero error

```
try:
  num1=int(input("enter first number:"))
  num2=int(input("enter second number:"))
  result=num1/num2
  print("result:",result)
except ZeroDivisionError:
  print("cannot divide by zero.")
except ValueError:
  print("invalid input!please enter valid numbers.")
```

```
enter first number:20
enter second number:10
result: 2.0
```

creating a custom exception

```
class NegativeNumberError(Exception):
  pass

def check_positive_number(num):
  if num<0:
    raise NegativeNumberError("Negative Number Entered.")
try:
    num=int(input("Enter a positive number:"))
    check_positive_number(num)
    print("You enter a positive number.")
except NegativeNumberError as e:
    print(e)
```

```
Enter a positive number:20
You enter a positive number.
```

count line in a file

```
file = open("/content/ranjita.txt", "r")
line_count = 0
for line in file:
    line_count += 1
print(line_count)
file.close()
```

```
2
```

count words in a file

```
file = open("/content/ranjita.txt", "r")
word_count = 0

for line in file:
    # Split the line into words using spaces as delimiters
    words = line.split()
    # Add the number of words in the current line to the total count
    word_count += len(words)

print(word_count)
file.close()
```

```
8
```

random number

```
import random
random_number=random.randint(1,100)
print("the random number is:",random_number)
```

```
the random number is: 96
```