

```
In [ ]: #syntax errors
a=2
prin(a)
```

```
-----
-----
NameError                                Traceback (most recent call 1
ast)
<ipython-input-1-a7880554a2fb> in <module>()
      1 #syntax errors
      2 a=2
----> 3 prin(a)

NameError: name 'prin' is not defined
```

```
In [ ]: a=2
b=0
print(a/b)
```

```
-----
-----
ZeroDivisionError                        Traceback (most recent call 1
ast)
<ipython-input-2-c6c186332615> in <module>()
      1 a=2
      2 b=0
----> 3 print(a/b)

ZeroDivisionError: division by zero
```

```
In [ ]: #try except block to handle zero division error
a=2
b=0
try:
    print(a/b)
except Exception as e:
    print("reason",e)
```

```
reason division by zero
```

```
In [ ]: #multiple exception
a=2
while True:
    try:
        b=int(input("enter the number"))
        print(a/b)
    except ZeroDivisionError :
        print("division by zero not possible")
    except ValueError :
        print("enter a valid number")
```

```
enter the number4
0.5
enter the numberdf
enter a valid number
enter the number0
division by zero not possible
```

```

-----
----
KeyboardInterrupt                                Traceback (most recent call l
ast)
/usr/local/lib/python3.7/dist-packages/ipykernel/kernelbase.py in _inpu
t_request(self, prompt, ident, parent, password)
    728             try:
--> 729                 ident, reply = self.session.recv(self.stdin_soc
ket, 0)
    730             except Exception:

/usr/local/lib/python3.7/dist-packages/jupyter_client/session.py in rec
v(self, socket, mode, content, copy)
    802             try:
--> 803                 msg_list = socket.recv_multipart(mode, copy=copy)
    804             except zmq.ZMQError as e:

/usr/local/lib/python3.7/dist-packages/zmq/sugar/socket.py in recv_mult
ipart(self, flags, copy, track)
    726             """
--> 727             parts = [self.recv(flags, copy=copy, track=track)]
    728             # have first part already, only loop while more to rece
ive

zmq/backend/cython/socket.pyx in zmq.backend.cython.socket.Socket.recv
()

zmq/backend/cython/socket.pyx in zmq.backend.cython.socket.Socket.recv
()

zmq/backend/cython/socket.pyx in zmq.backend.cython.socket._recv_copy()

/usr/local/lib/python3.7/dist-packages/zmq/backend/cython/checkrc.pxd i
n zmq.backend.cython.checkrc._check_rc()

```

KeyboardInterrupt:

During handling of the above exception, another exception occurred:

```

KeyboardInterrupt                                Traceback (most recent call l
ast)
<ipython-input-5-553d726e5acb> in <module>()
      3 while True:
      4     try:
----> 5         b=int(input("enter the number"))
      6         print(a/b)
      7     except ZeroDivisionError :

/usr/local/lib/python3.7/dist-packages/ipykernel/kernelbase.py in raw_i
nput(self, prompt)
    702         self._parent_ident,
    703         self._parent_header,
--> 704         password=False,
    705     )
    706

/usr/local/lib/python3.7/dist-packages/ipykernel/kernelbase.py in _inpu

```

```
t_request(self, prompt, ident, parent, password)
    732         except KeyboardInterrupt:
    733             # re-raise KeyboardInterrupt, to truncate trace
back
--> 734         raise KeyboardInterrupt
    735     else:
    736         break

KeyboardInterrupt:
```

```
In [ ]: #multiple exception
a=2
while True:
    try:
        b=int(input("enter the number"))
        print(a/b)
    except (ZeroDivisionError, ValueError) :
        print("invalid entry")
```

enter the number4
0.5
enter the numberwe
invalid entry

```

-----
----
KeyboardInterrupt                                Traceback (most recent call l
ast)
/usr/local/lib/python3.7/dist-packages/ipykernel/kernelbase.py in _inpu
t_request(self, prompt, ident, parent, password)
    728             try:
--> 729                 ident, reply = self.session.recv(self.stdin_soc
ket, 0)
    730             except Exception:

/usr/local/lib/python3.7/dist-packages/jupyter_client/session.py in rec
v(self, socket, mode, content, copy)
    802             try:
--> 803                 msg_list = socket.recv_multipart(mode, copy=copy)
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/usr/local/lib/python3.7/dist-packages/zmq/sugar/socket.py in recv_mult
ipart(self, flags, copy, track)
    726             """
--> 727             parts = [self.recv(flags, copy=copy, track=track)]
    728             # have first part already, only loop while more to rece
ive

zmq/backend/cython/socket.pyx in zmq.backend.cython.socket.Socket.recv
()

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()

zmq/backend/cython/socket.pyx in zmq.backend.cython.socket._recv_copy()

/usr/local/lib/python3.7/dist-packages/zmq/backend/cython/checkrc.pxd i
n zmq.backend.cython.checkrc._check_rc()

```

KeyboardInterrupt:

During handling of the above exception, another exception occurred:

```

KeyboardInterrupt                                Traceback (most recent call l
ast)
<ipython-input-2-ec216668ec24> in <module>()
      3 while True:
      4     try:
----> 5         b=int(input("enter the number"))
      6         print(a/b)
      7     except (ZeroDivisionError, ValueError) :

/usr/local/lib/python3.7/dist-packages/ipykernel/kernelbase.py in raw_i
nput(self, prompt)
    702         self._parent_ident,
    703         self._parent_header,
--> 704         password=False,
    705     )
    706

/usr/local/lib/python3.7/dist-packages/ipykernel/kernelbase.py in _inpu

```



```

t_request(self, prompt, ident, parent, password)
    732         except KeyboardInterrupt:
    733             # re-raise KeyboardInterrupt, to truncate trace
back
--> 734             raise KeyboardInterrupt
    735         else:
    736             break

```

KeyboardInterrupt:

```

In [ ]: #else block
a=2
while True:
    try:
        b=int(input("enter the number"))
        print(a/b)
    except ZeroDivisionError :
        print("division by zero not possible")
    except ValueError :
        print("enter a valid number")
    else:
        print("the result after division is obtained")

```

0.6666666666666666
the result after division is obtained

```

In [5]: #finally block
a=2
while True:
    try:
        b=int(input("enter the number"))
        print(a/b)
    except ZeroDivisionError :
        print("division by zero not possible")
    except ValueError :
        print("enter a valid number")
    else:
        print("the result after division is obtained")
    finally:
        print("this statement will be printed in all cases")
        break

```

enter the number0
division by zero not possible
this statement will be printed in all cases

```

In [ ]: #exception as argument
a=2
b=0
try:
    print(a/b)
except Exception as e:
    print("the reason for exception is ",e)

```

the reason for exception division by zero

```
In [6]: #exception as argument
a=2
b=0
try:
    print(a/b)
except Exception as e:
    print("the reason for exception is ",e)
```

the reason for exception is division by zero

```
In [8]: #raise an exception
while True:
    age=int(input("enter the age"))
    try:
        if (age<15):
            raise ValueError
        else:
            print("you are elligible for college admission ")
    except ValueError:
        print("age should be avove 15 for college admission")
        break
```

enter the age7

age should be avove 15 for college admission

```
In [9]: #user defined exception class
class Error (Exception):
    pass
class ValuetooSmall(Error):
    pass
class ValuetooHigh(Error):
    pass
number=10
while True:
    guess_no=int(input("enter the number"))
    try:
        if (guess_no<number):
            print("number too low")
            raise ValuetooSmall
        elif (guess_no>number):
            print("number too large")
            raise ValuetooHigh
        else:
            print("you won!!!!correct guessing")
            break
    except ValuetooSmall:
        print("entered value is smaller")
    except ValuetooHigh:
        print("entered value is higher")
```

```
enter the number7
number too low
entered value is smaller
enter the number12
number too large
entered value is higher
enter the number10
you won!!!!correct guessing
```