

In [3]: *#1. Write a Python program that prompts the user to enter an integer and handles the ValueError exception if the user enters a non-integer value.*

```
try:
    num=int(input("Enter a number:"))
    print("Entered number:",num)

except ValueError as e:
    print("Error: ",str(e))
```

Enter a number:hi

Error: invalid literal for int() with base 10: 'hi'

In [4]: *#2. Create a program that opens a file and reads its contents. Use a try-except block to handle the FileNotFoundError exception and display a custom error message if the file does not exist.*

```
try:
    file1 = open("newfile.txt","r")
    content=file1.read()
    print("File contents :",content)

except FileNotFoundError:
    print("Error!!!File does not exist")
```

Error!!!File does not exist

In [5]: *#3. Write a program that calculates the division of two numbers entered by the user. Use a try-except block to handle the ZeroDivisionError exception and display an appropriate error message if the user tries to divide by zero.*

```
try:
    num1=int(input("Enter first number:"))
    num2=int(input("Enter second number:"))
    result=num1/num2
    print(num1,"/",num2,"=",result)

except ValueError as e:
    print("Invalid input !!!")

except ZeroDivisionError as e:
    print("Division by zero not possible!!!")
```

Enter first number:23
Enter second number:0
Division by zero not possible!!!

In [10]: *#4.Create a program that attempts to connect to a website and prints the HTML content if successful.
Use a try-except-else block to handle the requests.exceptions.RequestException exception and display an error
message if the connection fails.*

```
import requests

try:
    url=requests.get("http://www.jetbrains.com/pycharm/")

except requests.exceptions.RequestException as e:
    print("Error:",str(e))

else:
    content=url.text
    print("HTML content of the webpage:",content)
```

Error: No connection adapters were found for 'http://www.jetbrains.com/pycharm/'

In [11]: *#5.Write a program that opens a file, reads its contents, and writes the contents to a new file.
Use a try-except-finally block to ensure that the file is closed even if an exception occurs during the
file operations.*

```
try:
    infile=open("C:/Users/femin/PycharmProjects/pythonProject/pythonProject/BeinexPython/day17Task/fileop.txt","r",encoding="utf8")
    content=infile.read()
    print("File contents of fileop.txt:\n",content)

    with open("C:/Users/femin/PycharmProjects/pythonProject/pythonProject/BeinexPython/day17Task/fileop.txt", "r", encoding="utf8") as f:
        with open("C:/Users/femin/PycharmProjects/pythonProject/pythonProject/BeinexPython/day17Task/newfileop.txt", "w", encoding="utf8") as f2:
            for line in f:
                f2.write(line)
    outfile=open("C:/Users/femin/PycharmProjects/pythonProject/pythonProject/BeinexPython/day17Task/newfileop.txt", "r")
    print("File contents of newfileop.txt:\n",outfile.read())
    newcontent=open("New.txt", "r")

except FileNotFoundError as e:
    print("Error:",e)

finally:
```

```

if not infile.closed:
    infile.close()
if not outfile.closed:
    outfile.close()
print("Status of Infile closed or not :",infile.closed)
print("Status of Outfile closed or not :",outfile.closed)

```

File contents of fileop.txt:

Errors will always arise

File contents of newfileop.txt:

Errors will always arise

Error: [Errno 2] No such file or directory: 'New.txt'

Status of Infile closed or not : True

Status of Outfile closed or not : True

In [12]: *#6. Write a Python program that reads email details (sender, recipient, subject, and body) from user
input and sends the email using Mailtrap as the SMTP server*

```

import smtplib
from email.mime.text import MIMEText

email_sender=input("Enter Email sender:")
email_receiver=input("Enter Email receiver:")

subject=input("Enter Subject:")
body=input("Enter body of the email:")

message=MIMEText(body)
message['From']=email_sender
message['To']=email_receiver
message['Subject']=subject

smtp_server='sandbox.smtp.mailtrap.io'
smtp_user= '52e0425359aa01'
smtp_pass='18d17d90659345'
smtp_port='2525'

server=smtplib.SMTP(smtp_server,smtp_port)
print("----Server----",server)
server.starttls()
server.login(smtp_user,smtp_pass)
server.sendmail(email_sender,email_receiver,message.as_string())

```

```
print("-----Email Sent-----")
server.quit()
```

```
Enter Email sender:feminabasheer.com
Enter Email receiver:abcm@gmail.com
Enter Subject:Daily Task Send mail using python
Enter body of the email:Your daily task is to send mail using python making use of smtp
----Server---- <smtp.SMTP object at 0x000001787C877E20>
-----Email Sent-----
(221, b'2.0.0 Bye')
```

Out[12]:

In [13]: *#7.write a python program to send an email with multiple recipients using the smtplib library.*

```
import smtplib
from email.mime.text import MIMEText

email_sender=input("Enter Email sender:")
list_receivers=input("Enter Email receivers seperated by space:")
email_receivers=list_receivers.split()

subject=input("Enter Subject:")
body=input("Enter body of the email:")

message=MIMEText(body)
message['From']=email_sender
message['To']=','.join(email_receivers)
message['Subject']=subject

smtp_server='sandbox.smtp.mailtrap.io'
smtp_user='52e0425359aa01'
smtp_pass='18d17d90659345'
smtp_port='2525'

server=smtplib.SMTP(smtp_server,smtp_port)
print("----Server----",server)
server.starttls()
server.login(smtp_user,smtp_pass)
server.sendmail(email_sender,email_receivers,message.as_string())
print("-----Email Sent-----")
server.quit()
```

```

Enter Email sender:feminabasheer.com
Enter Email receivers seperated by space:femiansar.com abcbeinex.com ansiya.com
Enter Subject:Daily Task
Enter body of the email:This is a sample mail to test mail sending using python
----Server---- <smtpplib.SMTP object at 0x000001787C876EF0>
-----Email Sent-----

```

Out[13]: (221, b'2.0.0 Bye')

In [14]: *#8.write a python program to handle exceptions when sending emails using Python's smtpplib library.*

```

import smtpplib
from email.mime.text import MIMEText

email_sender=input("Enter Email sender:")
email_receiver=input("Enter Email receiver:")

subject=input("Enter Subject:")
body=input("Enter body of the email:")

message=MIMEText(body)
message['From']=email_sender
message['To']=email_receiver
message['Subject']=subject

smtp_server='sandbox.smtp.mailtrap.io'
smtp_user= '52e0425359aa01'
smtp_pass='18d17d90659345'
smtp_port='2525'

try:
    server=smtpplib.SMTP(smtp_server,smtp_port)
    print("----Server----",server)
    server.starttls()
    server.login(smtp_usr,smtp_pass)
    server.sendmail(email_sender,email_receiver,message.as_string())
    print("-----Email Sent-----")
    server.quit()

except Exception as e:
    print("Error in sending Email:",str(e))

```

```
Enter Email sender:feminabasheer.com
Enter Email receiver:abcbeinex.com
Enter Subject:Daily Task on 12/06/2023
Enter body of the email:Please send the daily task file
----Server---- <smtpplib.SMTP object at 0x000001787B25CCD0>
Error in sending Email: name 'smtp_usr' is not defined
```

In [15]: *#9. Write a Python program that prompts the user to enter their age. Define a custom exception called # InvalidAgeError that is raised when the entered age is less than 0 or greater than 150. Handle the # InvalidAgeError exception and display an appropriate error message.*

```
class InvalidAgeError(Exception):
    pass

try:
    age=int(input("Enter your age : "))
    if age<0 or age>150:
        raise InvalidAgeError("Invalid Age !!! Age must be between 0 to 150.")
    else:
        print("Your Age : ",age)
except InvalidAgeError as error:
    print("Error :",error)
```

```
Enter your age : 190
Error : Invalid Age !!! Age must be between 0 to 150.
```

In [16]: *#10. Write a Python program that simulates a banking system. Implement a class called BankAccount with # methods to initialize an account with a starting balance, withdraw funds, and handle a custom exception # called NegativeBalanceError when the account balance goes below zero.*

```
class NegativeBalanceError(Exception):
    pass

class BankAccount:
    def __init__(self, initial_balance):
        self.amount = initial_balance

    def withdraw(self, withdraw_amount):
        if self.amount - withdraw_amount > 0:
            current_amount = self.amount - withdraw_amount
            print("Current Balance :{} Rs.".format(current_amount))
        else:
            raise NegativeBalanceError("Insufficient Balance!")

try:
```

```
initial_balance = float(input("Enter initial account balance: "))
obj = BankAccount(initial_balance)
withdrawal_amount = float(input("Enter withdrawal amount: "))
obj.withdraw(withdrawal_amount)
except NegativeBalanceError as error:
    print("Error:", str(error))
```

Enter initial account balance: 3000

Enter withdrawal amount: 5000

Error: Insufficient Balance!

In []: