Software Engineering Assignment

```
# THIS IS MAIN FILE I NAMED AS Send_OTP_Using_Mail_2, this is version 2.
import GetPass #Importing Password,Email From another file.
import random import smtplib #This library is used for sending
message using email. import time

password = GetPass.pwd
Sender_Mail = GetPass.email

def EmailValidation(Email):
   True_Str1,True_Str2 = "yahoo" in Email,"gmail" in Email # This will store boolean values.

   if (True_Str1 or True_Str2) and( "@" in Email and "." in Email and "com" in
   Email): print("\nNo Error Found in Email!") else: raise AssertionError("Please
   enter valid Domain Name!")

def genrateOtp():
   Length = int(input("Enter Length of OTP: "))
   otp = ''.join([str(random.randint(0,9)) for i in range(Length)]) #Generated OTP using
random.randint()
   return otp



def sendMail(Name,Email,otp): server = smtplib.SMTP('smtp.gmail.com',587) #Created gmail's
   server, and connected to gmail API
   # Adding transfer layered security server.starttls()
   server.login(Sender_Mail,password) # Email, App password are
   inserted. if True:
      msg = 'Subject: Sending Mail using Python (smtplib)!\n\nHello '+Name+', Your OTP is
'+str(otp)+'\n\nYou Have 30 Seconds to enter OTP!'

      #Inserted Sender email ID, Recevier email ID.
      server.sendmail(Sender_Mail,Email,msg)
      print("Email Sent!")
   server.quit()



def validateOTP(OT):
   # This function will check entered otp is valid or not!
   # This function also have Time Limit of 30 Sec
   test_time = 30 beg_time = time.time()
   now_time =
   time.time() otp = OT
   input_otp = 0 if
   input_otp == otp:
      pass
   else:
      while input_otp != otp and int(now_time)-int(beg_time) <= test_time:
         if now_time-beg_time <=test_time:
            input_otp = input("Enter Valid OTP: ")
         now_time = time.time()
   if input_otp == otp:
      print("OTP IS VALID!")
```

```
else:
    raise AssertionError("Out Of Time!")
```

Software Testing Assignment -1

```
#THIS IS ANOTHER FILE I NAMED AS
OTP. import unittest import smtplib
import Send_OTP_Using_Mail_2 as O

class BetweenAssertMixin(object):
   def assertBetween(self, x, low, hi):
      if not (low <= x <= hi): raise AssertionError('Length of OTP is %r should be in between %r
         and %r' % (x, low, hi))



class OTP(unittest.TestCase,BetweenAssertMixin):
   def testcase1(self):
      print("-----------------------------------TestCase No.1-----------------------------------")
      # This is valid TestCase
      Name = "Sahiil"
      Email = "Sahiilshriwardhankar@gmail.com"

      #Validation of Email
      O.EmailValidation(Email)

      #Checking OTP otp =
      O.genrateOtp()
      self.assertBetween(len(otp),4,8)

      #Calling Sendmail Function
      O.sendMail(Name,Email,otp)



      #Validation of OTP
      O.validateOTP(otp)



   def testcase2(self):
      print("-----------------------------------TestCase No.2-----------------------------------\n")

      # Email Validation
      # Here i provided, incorrect Email ID.
      Name = "Sahiil"
      Email = "Sahiilshriwardhankargmail.com"

      #Validation of Email
      O.EmailValidation(Email)


      #Checking OTP otp =
      O.genrateOtp()
      self.assertBetween(len(otp),4,8)

      #Calling Sendmail Function
      O.sendMail(Name,Email,otp)
```

```
        #Validation of OTP
        O.validateOTP(otp)

        print("-------------------------------------------------------------------------------------\n")


    def testcase3(self): print("----------------------------------TestCase No.3-------------------
        ------------------\n")

        # There is no
        Name = "Sahiil"
        Email = "Sahiilshriwardhankar@gmail.com"

        #Validation of Email
        O.EmailValidation(Email)

        # Checking OTP
        # Here i will Enter invalid otp length
        otp = O.genrateOtp()
        self.assertBetween(len(otp),4,8)

        #Calling Sendmail Function
        O.sendMail(Name,Email,otp)

        #Validation of OTP
        O.validateOTP(otp)


    def testcase4(self):
        print("-------------------------------------TestCase No.4-------------------------------------\n")

        #Checking Email
        Name = "Sahiil"
        Email = "Sahiilshriwardhankar@gmail.com"

        #Validation of Email
        O.EmailValidation(Email)

        #Checking OTP otp =
        O.genrateOtp()
        self.assertBetween(len(otp),4,8)

        #Calling Sendmail Function
        O.sendMail(Name,Email,otp)

        #Validation of OTP and I will take time greater then 30sec.
        O.validateOTP(otp)



        print("-------------------------------------------------------------------------------------\n")


unittest.main()
```