



Python Project

Login/Signup using mail Verification

This project is created by Tanishq Singh, using python language. Here, data is stored by using a combination of list and dictionary and those data are dumped into binary file.

As the program starts, user are welcomed in TANISHQ ACCOUNTS that's an imaginary platform created where user can Sign up or login into their account.

Programs displays two options log in or sign up. When user sign up then, few things are always checked and ensured by this program such as user ID that they are creating must not already exists, password should be alpha numeric only. When they login again few things are checked like user exists or not, if exists then password is correct or not and so on.

The best thing about this program is that a separate module is being created in this project for sending mail, whenever user login or sign up an OTP is generated using random module, sent to email id of the user if OTP matches then only successful login or sign takes place.

This is how my program looks like.

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SOURCE CODE



email_sending.py

```

"""This module is being created to handle mail"""

# importing some required modules
import smtplib, ssl
import random

# defining a function to send mail
# taking 2 parameters email and name of receiver
def send_mail(para_email, para_name):
    # generating 4 digit otp using randint function of random module
    gen_otp=random.randint(1111,9999)
    # storing valid informations
    port = 465
    smtp_server = "smtp.gmail.com"
    # here senders email is written
    sender_email = " Your email address / ID "
    # here receiver email will be assigned from parameter
    receiver_email = para_email
    # password of sender's email for login
    password = " Your Password "
    # message to be sent is written here
    # format of writing should be necessarily the same to get the required result
    message = """\nSubject: Hello """+para_name+"""!\n\nWelcome to TANISHQ ACCOUNTS,\nOTP for account verification is """+str(gen_otp)+""".\n\nPlease do not share this OTP with anyone,\nTANISHQ ACCOUNTS never calls you for OTP.\nIf this was a mistake and you are not the owner of this account,\nkindly ignore this mail and do not forward this mail at any circumstances.\n\nThank You\nTeam TANISHQ ACCOUNTS"""

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# using built in function
context = ssl.create_default_context()
with smtplib.SMTP_SSL(smtp_server, port, context=context) as server:
    # logging in
    server.login(sender_email, password)
    # sending mail to provided email id
    server.sendmail(sender_email, receiver_email, message)
# returning otp to verify in main menu
return gen_otp

```



main_menu.py

```
#MAIN MENU of sign in/sign up

# importing inbuilt pickle module
import pickle
# importing user created module email_sending
import email_sending

#printing some welcoming lines
print('Welcome to TANISHQ ACCOUNTS')
print('Where you can create a secure account')
print()

#giving some options to the user
print('Options are as follows:')
print('    1. Sign in')
print('    2. Sign up')
print('Choose the appropriate one')
print()

#asking user to choose option and enter
ask=int(input('Enter your choice: '))
print()

#opening binary file in reading mode to load all data
mfile=open('database.dat','rb')
#trying to load data using load function of pickle module
try:
    data_dict=pickle.load(mfile)
    mfile.close()
#to avoid error if binary file is empty
except EOFError:
    mfile.close()
    data_dict=dict()

#case when user enters 1 to sign in
if ask==1:
    #case when database is not empty
    if len(data_dict)!=0:
        print('Your response shows that you are already a registered user')
        print()
        print('Now give some details of yours to proceed')
        #accepting login id and password
        user_id=input('    Enter your user ID: ')
        passwd=input('    Enter your password: ')
        print()
```

```
#case when user id exists and password is also correct
if user_id in data_dict.keys() and data_dict[user_id][2]==passwd:
    #fetching name and email from database
    name=data_dict[user_id][0]
    email=data_dict[user_id][3]
    print('We are sending an OTP to your email id')
    print()
    #sending otp through email and assigning that otp to an identifier
    OTP=email_sending.send_mail(email,name)
    print('An OTP has been sent to your email ID')
    #asking otp from the user
    passcode=int(input('Enter OTP: '))
    #case when user enters correct otp
    if passcode==OTP:
        #displaying successfully logged in
        print('Successfully logged in')
        mfile.close()
    #case when wrong otp entered
    else:
        print('Wrong OTP entered')
    #case when user id does not exists
elif user_id not in data_dict.keys():
    print('User ID does not exist')
    ask=2
#case when user id exists but password entered is incorrect
else:
    print('Password incorrect!')

#case when database is empty
else:
    mfile.close()
    print('Database is empty')
    ask=2

#case when user enters 2 to sign up
elif ask==2:
    print('Since you are new user, let us register your new account')
    #asking user to enter details
    print('Give your informations:')
    #one by one accepting informations and saving in an identifier
    f_name=input('      Enter your first name: ')
    l_name=input('      Enter your last name: ')
    #concatenating first and last name
    name=f_name+' '+l_name
    age=int(input('      Enter your age: '))
    print()
    #asking user to create user id
```

```
#asking user to create user id
user_id=input('Create your user ID: ')
#user id must not be already in use so asking again and again till the user id is unique
while user_id in data_dict.keys():
    user_id=input('User ID you entered is already in use, try some other: ')
#asking user to create password
passwd=input('Create your password: ')
#password must be alphanumeric if not asking user to create some other password
while passwd.isalnum()==False:
    passwd=input('The password should be alpha numeric, try some other: ')
print()
#asking user to enter email id
email=input(' Enter your email ID: ')
print('Now the last step to confirm your identity')
print('We are sending an OTP to your email...')
print()
#sending otp to given email id using our created function of email_sendind module
OTP=email_sending.send_mail(email,name)
print('An OTP has been sent to your email ID')
#asking user to enter otp
passcode=int(input('Enter OTP: '))
#case when otp entered is correct
if passcode==OTP:
    print('All your information has been saved.')
    #adding all informations to a dictionary
    data_dict[user_id]=[name,age,passwd,email]
    #opening binary file in writing mode
    myfile=open('database.dat','wb')
    #dumping the updated dictionary to binary file
    pickle.dump(data_dict,myfile)
    #closing the file
    myfile.close()
    print('Successfully Signed up')
#case when otp entered is wrong
else:
    print('Wrong OTP entered')

#case when wrong option is chosen
else:
    print('Wrong option chosen!')
```



OUTPUT

IDEAL SIGN UP

**When user enters everything
as per the requirement**

Welcome to TANISHQ ACCOUNTS
Where you can create a secure account

Options are as follows:

1. Sign in
2. Sign up

Choose the appropriate one

Enter your choice: 2

Since you are new user, let us register your new account

Give your informations:

Enter your first name: Tanishq

Enter your last name: Singh

Enter your age: 18

Create your user ID: tanishq_rc

Create your password: Tanishq18

Enter your email ID: tanishq.rc@yahoo.com

Now the last step to confirm your identity

We are sending an OTP to your email...

An OTP has been sent to your email ID

Enter OTP: 1356

All your information has been saved.

Successfully Signed up

[Program finished] █



Hello Tanishq Singh!

Inbox



tanishq.rc@gmail.com 11:30 am
to bcc: tanishq.rc ^



From tanishq.rc@gmail.com

Bcc tanishq.rc@yahoo.com

Date 11 May 2021, 11:30 am

[See security details](#)

Welcome to TANISHQ ACCOUNTS,
OTP for account verification is 1356.

Please do not share this OTP with anyone,
TANISHQ ACCOUNTS never calls you for OTP.
If this was a mistake and you are not the owner of this account,
kindly ignore this mail and do not forward this mail at any
circumstances.

Thank You
Team TANISHQ ACCOUNTS

IDEAL LOGIN

**When user enters everything
as per the requirement**

Welcome to TANISHQ ACCOUNTS
Where you can create a secure account

Options are as follows:

1. Sign in
2. Sign up

Choose the appropriate one

Enter your choice: 1

Your response shows that you are already a registered user

Now give some details of yours to proceed

Enter your user ID: tanishq_rc

Enter your password: Tanishq18

We are sending an OTP to your email id

An OTP has been sent to your email ID

Enter OTP: 4783

Successfully logged in

[Program finished] █

**When user tries to login before
signing up**

Welcome to TANISHQ ACCOUNTS
Where you can create a secure account

Options are as follows:

1. Sign in
2. Sign up

Choose the appropriate one

Enter your choice: 1

Your response shows that you are already a registered user

Now give some details of yours to proceed

Enter your user ID: tanishq

Enter your password: Tanishq18

User ID does not exist

[Program finished]

**When user enters wrong
password**

Welcome to TANISHQ ACCOUNTS
Where you can create a secure account

Options are as follows:

1. Sign in
2. Sign up

Choose the appropriate one

Enter your choice: 1

Your response shows that you are already a registered user

Now give some details of yours to proceed

Enter your user ID: tanishq_rc

Enter your password: Tanishq

Password incorrect!

[Program finished] █

**When user enters wrong OTP
mailed to the user**

Welcome to TANISHQ ACCOUNTS
Where you can create a secure account

Options are as follows:

1. Sign in
2. Sign up

Choose the appropriate one

Enter your choice: 1

Your response shows that you are already a registered user

Now give some details of yours to proceed

Enter your user ID: tanishq_rc

Enter your password: Tanishq18

We are sending an OTP to your email id

An OTP has been sent to your email ID

Enter OTP: 3333

Wrong OTP entered

[Program finished] █

**When user tries to create a
user ID that already exists**

Welcome to TANISHQ ACCOUNTS
Where you can create a secure account

Options are as follows:

1. Sign in
2. Sign up

Choose the appropriate one

Enter your choice: 2

Since you are new user, let us register your new account

Give your informations:

Enter your first name: Tanya
Enter your last name: Singh
Enter your age: 20

Create your user ID: tanishq_rc

User ID you entered is already in use, try some other: tanya

Create your password: Tanya10

Enter your email ID: tanishq.rc@outlook.com

Now the last step to confirm your identity

We are sending an OTP to your email...

An OTP has been sent to your email ID

Enter OTP: 8955

All your information has been saved.

Successfully Signed up

[Program finished]

Thank You!