**Python - Sending Email using SMTP**

We have learnt about protocols in our first modules and throughout web development. How about sending emails over the internet? Simple Mail Transfer Protocol (SMTP) is a protocol, which handles sending e-mail and routing e-mail between mail servers.The smtplib module of Python is basically all you need to send simple emails, without any subject line or such additional information. But for real emails, you do need a subject line and lots of information — maybe even pictures and attachments. When you create a SMTP object, you will need to specify host (IP address or host domain name), port ususally 25 and local\_hostname like localhost.

**Opening the Connection**

As already mentioned, Python conveniently comes with the smtplib, which handles all of the different parts of the protocol, like connecting, authenticating, validation, and of course, sending emails. In this section, we'll focus on creating a plain, insecure connection (you are not advised to use this). This connection is unencrypted and defaults to port 25. However, the protocol for mail submission actually uses 587, which is what we'll use. These connections are really simple to create with smtplib. The unencrypted version can be created with:

import smtplib

try: server = smtplib.SMTP('smtp.gmail.com', 587)

server.ehlo()

except: print ('Error here. Something went wrong’)

Please note, if you are going to use, gmail you will need to allow secure apps to be allowed access into your account on the link provided below.

<https://myaccount.google.com/lesssecureapps?pli=1>

**Using a Secure Connection**

When an SMTP connection is secured via TLS/SSL, it is done over port 465 and is typically called SMTPS. Needless to say, you should always use a secured connection. There are a few different ways you can secure your SMTP connections in the smtplib library. The first way is to first create an insecure connection and then upgrading to TLS. This is done using the .starttls() method.

See sample program below

**from** smtplib **import** SMTP  
  
**try**:  
 sender\_email = **"write-your-email-adderess@gmail.com"** receiver\_email = **"type-receiver-address@gmail.com"** password = input(str(**"Please enter your password"**))  
 server = SMTP(**'smtp.gmail.com'**, 587)  
 server.starttls()  
  
 server.login(sender\_email, password )  
 server.sendmail(sender\_email, receiver\_email, **'This is a test email.'**)

**print(“the message has been successfully sent”)**  
  
**except** Exception **as** err:  
 print(**"Something went wrong.."**, err)  
**finally**:  
 server.close()

**Adding attachments to your email**