



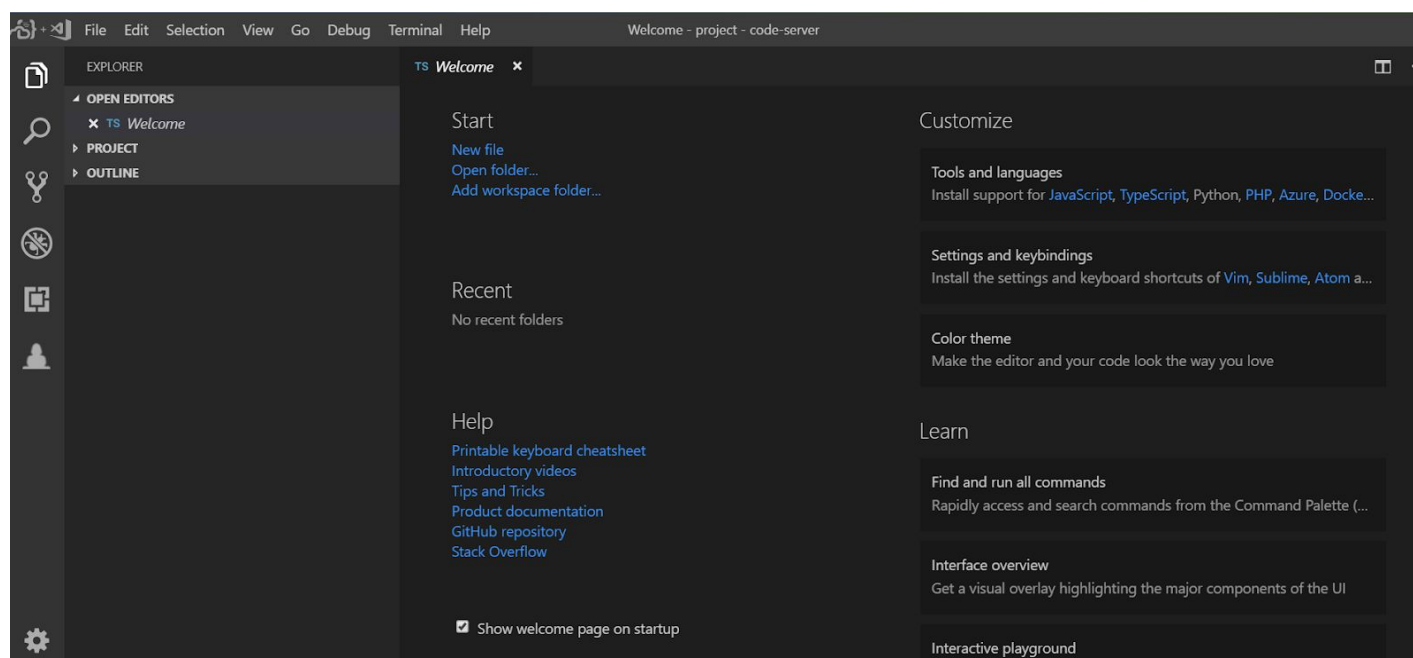
Name	Emulating IMAP Client
URL	https://attackdefense.com/challengedetails?cid=1218
Type	Offensive Python : Client Emulation

Important Note: This document illustrates all the important steps required to complete this lab. This is by no means a comprehensive step-by-step solution for this exercise. This is only provided as a reference to various commands needed to complete this exercise and for your further research on this topic. Also, note that the IP addresses and domain names might be different in your lab.

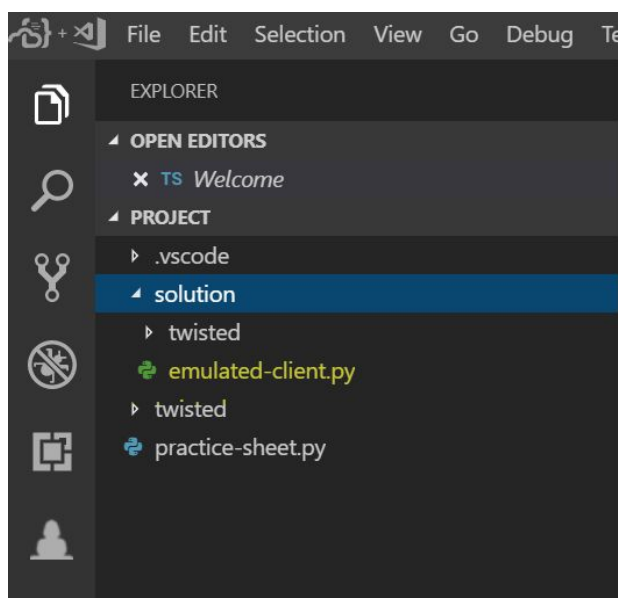
Objective: Use Python twisted library to login into the mail account of user "netadmin" and fetch subjects of all his mails.

Solution:

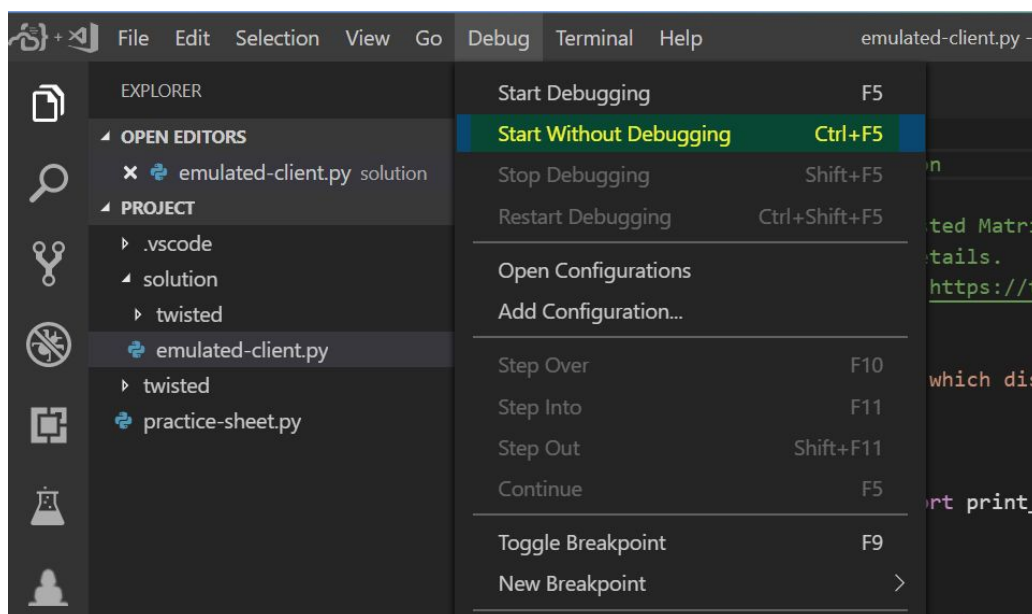
Landing Page:



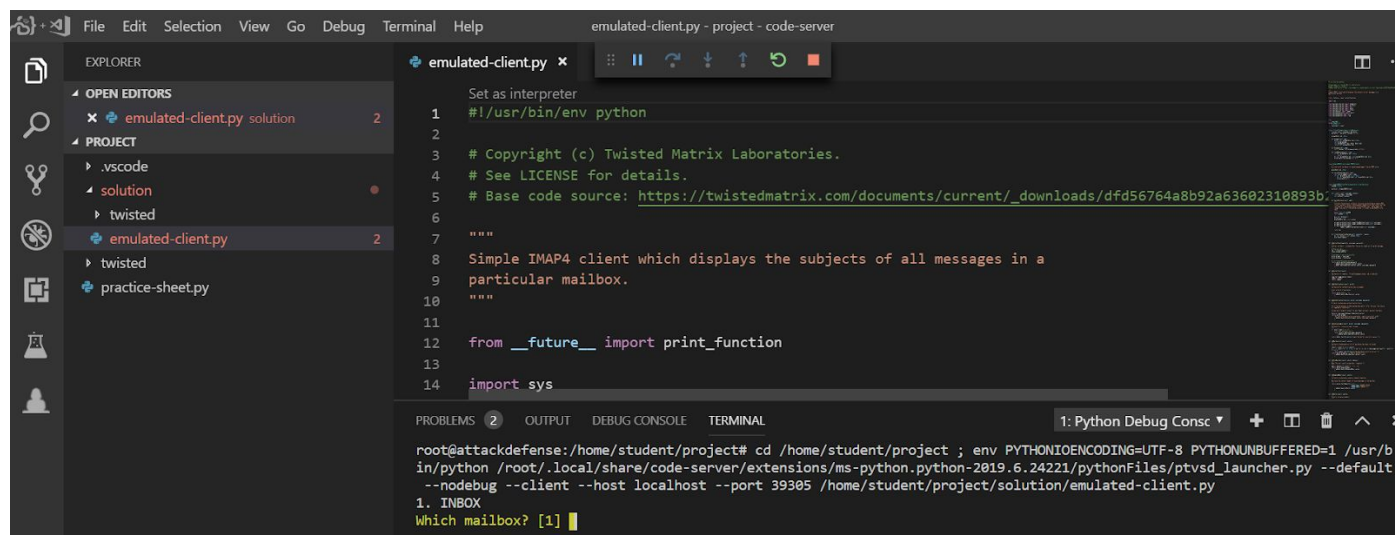
Step 1: Select “emulated-client.py” kept in solution directory from the Project Explorer.



Step 2: Navigate to Debug Menu and click on “Start Without Debugging option” to run the program.



The python script will run, connect to remote IMAP server and list available inboxes with an option to choose them.

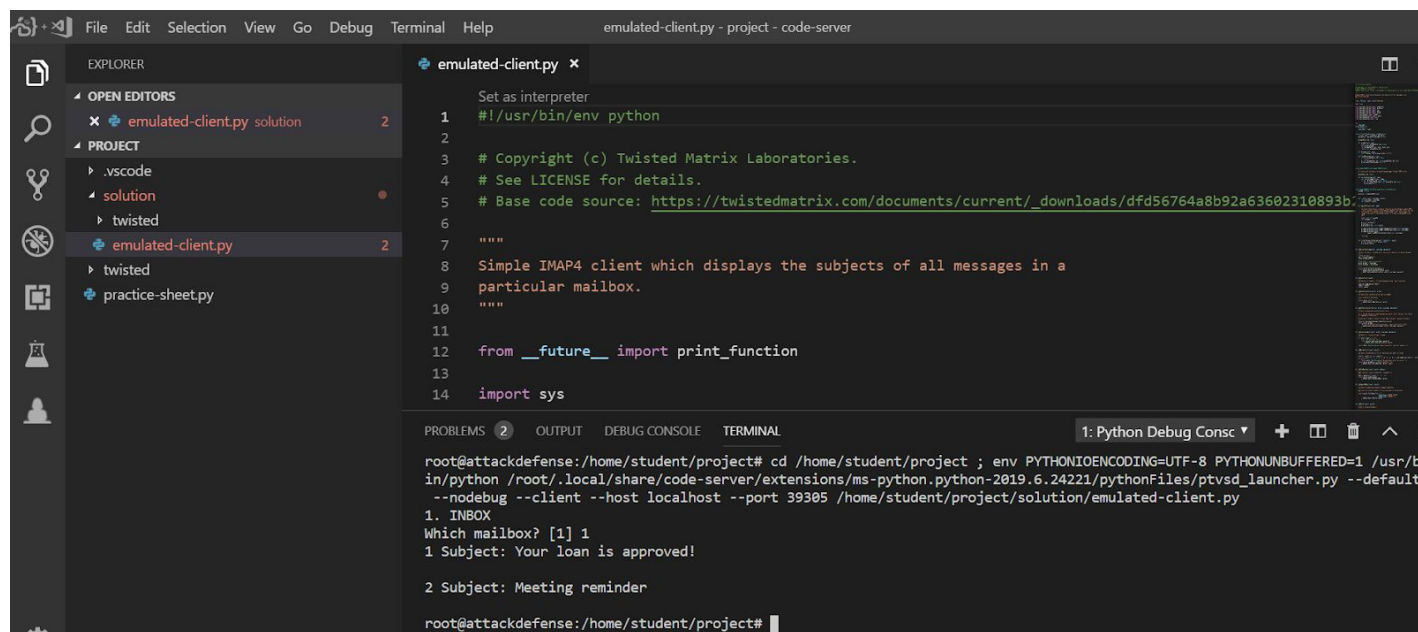


The screenshot shows the Visual Studio Code interface. The Explorer panel on the left shows the project structure with files like `emulated-client.py`, `practice-sheet.py`, and `twisted`. The main editor window displays the `emulated-client.py` script. The script is a Python IMAP4 client that connects to a remote server and lists available inboxes. The terminal window at the bottom shows the command prompt where the script is being executed. The output shows the script running and displaying the available inboxes.

```
Set as interpreter
1 #!/usr/bin/env python
2
3 # Copyright (c) Twisted Matrix Laboratories.
4 # See LICENSE for details.
5 # Base code source: https://twistedmatrix.com/documents/current/_downloads/dfd56764a8b92a63602310893b/
6
7 """
8 Simple IMAP4 client which displays the subjects of all messages in a
9 particular mailbox.
10 """
11
12 from __future__ import print_function
13
14 import sys

root@attackdefense:/home/student/project# cd /home/student/project ; env PYTHONIOENCODING=UTF-8 PYTHONUNBUFFERED=1 /usr/bin/python /root/.local/share/code-server/extensions/ms-python.python-2019.6.24221/pythonFiles/ptvsd_launcher.py --default --nodebug --client --host localhost --port 39305 /home/student/project/solution/emulated-client.py
1. INBOX
Which mailbox? [1]
```

Step 3: On selecting the first and only option, it will fetch subjects from all the mails present in this inbox.




The screenshot shows the Visual Studio Code interface. The Explorer panel on the left shows the project structure with files like `emulated-client.py`, `practice-sheet.py`, and `twisted`. The main editor window displays the `emulated-client.py` script. The terminal window at the bottom shows the command prompt where the script is being executed. The output shows the script running and displaying the available inboxes. The user has selected the first option (1. INBOX), and the script has fetched the subjects of all messages in that inbox.

```
Set as interpreter
1 #!/usr/bin/env python
2
3 # Copyright (c) Twisted Matrix Laboratories.
4 # See LICENSE for details.
5 # Base code source: https://twistedmatrix.com/documents/current/_downloads/dfd56764a8b92a63602310893b/
6
7 """
8 Simple IMAP4 client which displays the subjects of all messages in a
9 particular mailbox.
10 """
11
12 from __future__ import print_function
13
14 import sys

root@attackdefense:/home/student/project# cd /home/student/project ; env PYTHONIOENCODING=UTF-8 PYTHONUNBUFFERED=1 /usr/bin/python /root/.local/share/code-server/extensions/ms-python.python-2019.6.24221/pythonFiles/ptvsd_launcher.py --default --nodebug --client --host localhost --port 39305 /home/student/project/solution/emulated-client.py
1. INBOX
Which mailbox? [1] 1
1 Subject: Your loan is approved!

2 Subject: Meeting reminder

root@attackdefense:/home/student/project#
```



In this manner, one can automate mail dumping from multiple servers.

References:

1. Visual Studio Code (<https://code.visualstudio.com/>)
2. VS Code Basic Editing (<https://code.visualstudio.com/docs/editor/codebasics>)
3. Twisted (<https://www.twistedmatrix.com/trac/>)