

Comunidad Python Popayán, invita

Miércoles 25 abril de 2018, 6:15 pm

Lugar: Calle 5 No. 1-62 B/La Pamba (Detrás de la Ermita)

Introducción a blockchain y seguridad informática con Python

Entrada Libre!

Tenga en cuenta el código de conducta:

<https://www.python.org/psf/codeofconduct/>



<http://pythonpopayan.org>

Agenda

- **Introducción a blockchain**

- Qué es blockchain

- Ejemplo:

- <https://hackernoon.com/learn-blockchains-by-building-one-117428612f46>

- **Introducción a seguridad informática con python**

- Banner grabbing

- Protocolo ICMP (ECHO_REQUEST, ECHO_REPLY) => ping

- DNSPython

Banner grabbing

```
#!/usr/bin/python2.7
import socket

def main():
    ports = [21, 22]
    #ips = ["190.90.112.131", "192.168.0.32", "192.168.0.10"]
    #for ip in ips:
    for x in range(20, 255):
        ip = '192.168.0.'+str(x)
        for port in ports:
            banner = check_banner(ip, port)
            if banner:
                print "[+] " + ip + " : " + banner.strip('\n')
                check_vul(banner)

def check_banner(ip, port):
    socket.setdefaulttimeout(10)
    s = socket.socket()
    banner = None
    try:
        s.connect((ip, port))
        banner = s.recv(1024)
    except Exception, e:
        print "[-] " + ip + ": " + str(port) + " | Error = " + str(e)
    return banner

def check_vul(banner):
    if ("FreeFloat Ftp Server (Version 1.00)" in banner):
        print "[+] FreeFloat FTP Server is vulnerable."
    elif ("3Com 3CDaemon FTP Server Version 2.0" in banner):
        print "[+] 3CDaemon FTP Server is vulnerable."
    elif ("Ability Server 2.34" in banner):
        print "[+] Ability FTP Server is vulnerable."
    elif ("Sami FTP Server 2.0.2" in banner):
        print "[+] Sami FTP Server is vulnerable."
    else:
        print "[-] Server is not vulnerable."

if __name__ == "__main__":
    main()
```

ICMP

```
from subprocess import Popen, PIPE
```

```
def ping_with_python():
```

```
    for ip in range(1, 20):
```

```
        ip_address = '192.168.0.' + str(ip)
```

```
        print(ip_address)
```

```
        subprocess = Popen(['/bin/ping', '-c 1', ip_address],  
stdout=PIPE, stdin=PIPE, stderr=PIPE)
```

```
        stdout, stderr = subprocess.communicate(input=None)
```

```
        if "bytes from" in str(stdout):
```

```
            print("IP {}".format(ip_address))
```

```
ping_with_python()
```

DNS

```
from subprocess import Popen, PIPE
import dns

# pip install dnspython

def dns_with_python():
    # domain = 'ops.servagro.com.co'
    domain = 'google.com'
    import dns.resolver
    ansMX = dns.resolver.query(domain, 'A')
    ansMX = dns.resolver.query(domain, 'MX')
    ansNS = dns.resolver.query(domain, 'NS')
    ansA = dns.resolver.query(domain, 'A')
    ansAAAA = dns.resolver.query(domain, 'AAAA')
    ansSOA = dns.resolver.query(domain, 'SOA')
    ansTXT = dns.resolver.query(domain, 'TXT')
    print("Registro MX")
    for ans in ansMX:
        print(ans)
    print("Registro DNS")
    for ans in ansNS:
        print(ans)
    print("Registro Dominio IP v4")
    for ans in ansA:
        print(ans)
    print("Registro Dominio ip v6")
    for ans in ansAAAA:
        print(ans)
    print("Registro Sart of Authority - SOA")
    for ans in ansSOA:
        print(ans)
    print("Registro TXT")
    for ans in ansTXT:
        print(ans)

dns_with_python()
```

- **Este y otros ejercicios se pueden ver en:**

- “Python para hackers” de DragonJar TV:

- https://www.youtube.com/watch?v=f7ec0bXca-w&list=PLbMc9DOHIK9xm2DQmDc3qS7yc2x1kZ_Qu

Tareas

- **Subir a gitlab código**
- **pythonpopayan.org**
 - Presentaciones
 - Enlaces
- **Documentar el código python**
- **Vídeos de DragonJar Python3 v**
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Intereses

- **+ Propuestas**

- ML/BD/AD: **Esteban**, Cristian, Albeiro, Jordan, Juan] [20 Junio]
- IoT: **Sebastian**, Marlon, Daniel, Jefer, Esteban, MichealT, DarwinM, Oscar,Jeison, EdwinE [6 Junio]
- Movil: Sebastian, Johnny, Jefer, Danny, **Edwin** [23 Mayo]
- TDD/web: Melissa, Cristian, **Marlon**, PedroR, EdwinE, Danny [9 Mayo]
- BlockChain/Seguridad: Johnny, Edwin, PedroN, PedroR, Daniel, **JulianS**, JoaquinP, Gustavo [25 Abril]

Lider: documentar, convocar,