CODE -

```
import socket
import datetime

# Configuration
HOST = '0.0.0.0' # Listen on all network interfaces
PORT = 23    # Listen on Telnet port 23
LOG_FILE = "honeypot_log.txt"

def log_attack(attacker_ip, attacker_port):
  """Logs the connection attempt to the console and a file."""
  timestamp = datetime.datetime.now().strftime("%Y-%m-%d %H:%M:%S")
  log_entry = f"[{timestamp}] Connection attempt from: {attacker_ip}:
{attacker_port}\n"

  print(log_entry, end='') # Show in terminal
  with open(LOG_FILE, "a") as f:
    f.write(log_entry) # Save to file

# --- Main Honeypot Logic ---
print("Honeypot started. Listening on port {}... (Press Ctrl+C to stop)".format(PORT))
with socket.socket(socket.AF_INET, socket.SOCK_STREAM) as s:
  s.bind((HOST, PORT))
  s.listen()
  try:
    while True:
      conn, addr = s.accept()
      with conn:
        log_attack(addr[0], addr[1])
        conn.sendall(b"Access Denied.\n")
  except KeyboardInterrupt:
    print("\nHoneypot shutting down.")
```

(venv) C:\Users\sarga\honeypot-experiment>code .

(venv) C:\Users\sarga\honeypot-experiment>python honeypot.py
Honeypot started. Listening on port 23... (Press Ctrl+C to stop)

C:\Users\sarga> Test-NetConnection -ComputerName localhost -Port 23
WARNING: TCP connect to (::1 : 23) failed

ComputerName   : localhost
RemoteAddress   : 127.0.0.1
RemotePort   : 23
InterfaceAlias   : Loopback Pseudo-Interface 1
SourceAddress   : 127.0.0.1
TcpTestSucceeded : True

(venv) C:\Users\sarga\honeypot-experiment>python honeypot.py
Honeypot started. Listening on port 23... (Press Ctrl+C to stop)
[2025-09-22 00:56:22] Connection attempt from: 127.0.0.1:64997