

# PYTHON AUTOMATION & SECURITY – DEMO

Automation Basics using Python

Simple Automation Script Demo

Mini Project Demo

WiFi Security Awareness using VBS

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## WHAT IS AUTOMATION?

### Automation

- Automation is the process of performing tasks automatically using programs.
- It reduces human effort in repetitive work.
- Automation saves time and improves accuracy.

### Examples

- Automatic file checking
- Automatic scanning
- Automatic report generation

## ■ ROLE OF AUTOMATION IN CYBERSECURITY

# Why Automation is Important in Cybersecurity?

### Repetitive Monitoring

Cybersecurity involves repetitive monitoring tasks.

### Speed & Accuracy

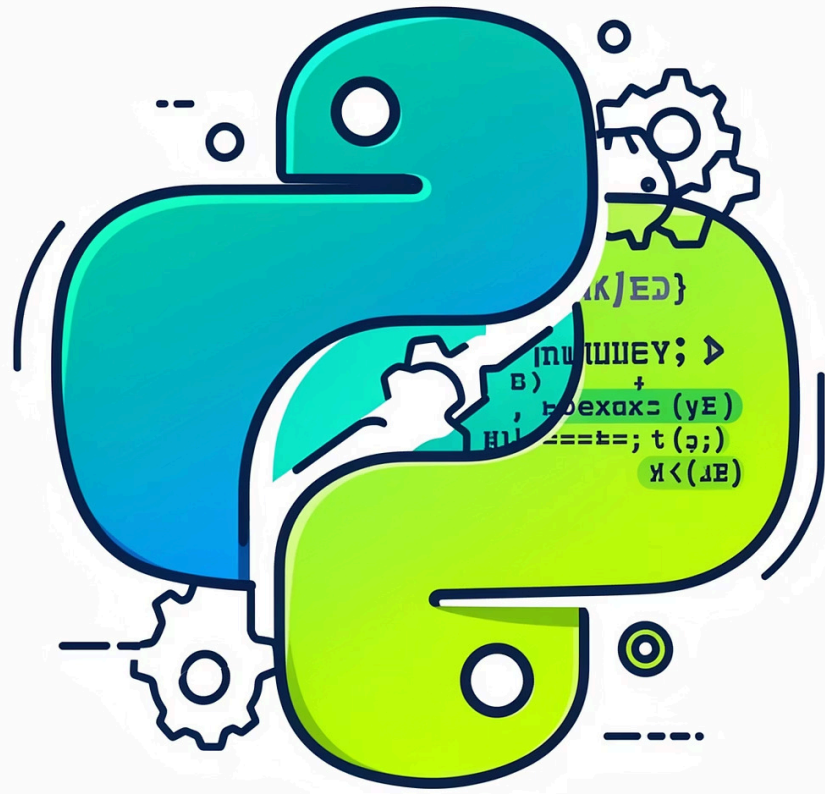
Manual checking is slow and error-prone.

### Threat Detection

Automation helps in quick detection of threats.

## Uses

- Network scanning
- Log monitoring
- Vulnerability detection



## ■ WHY PYTHON FOR AUTOMATION?

# Python for Automation

- Simple and easy to learn
- English-like syntax
- Requires fewer lines of code
- Works on Windows, Linux, and Mac

## Python is used for

- Security tools
- Network scanning
- System automation

## PYTHON AUTOMATION DEMO

# Demo: Simple Python Automation Script

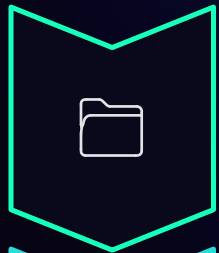
### Task Performed

- Automatically check files in a folder
- Identify .txt files
- Count total text files

### Python Concepts Used

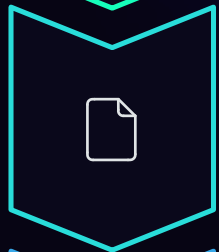
- Loop
- Condition
- OS automation

# How the Automation Script Works



## Open Folder

Open the specified folder



## Read Files

Read all files in the folder



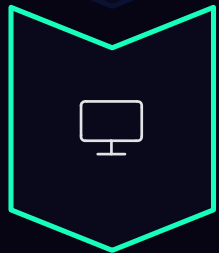
## Check Extension

Check file extension



## Count Files

Count .txt files



## Display Result

Display the result

Automation removes manual checking

# Simple Port Scanner

```
print("scanning started")

import socket

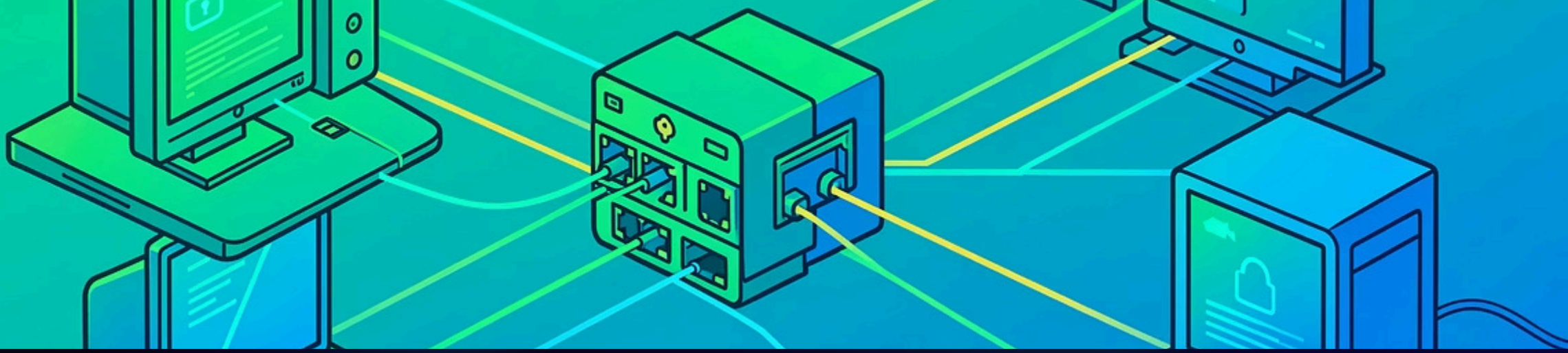
ip = "127.0.0.1"

for port in range(1, 101):
    s = socket.socket()

    s.settimeout(1)

    result = s.connect_ex((ip, port))
    if result == 0:
        print("Port", port, "is OPEN")
    s.close()

print("scan Completed")
```



## ■ MINI PROJECT DEMO

# Mini Project: Basic Port Scanner

### Project Objective

Scan open ports in a system automatically

### Input

IP Address

### Output

List of open ports

### Technology Used

Python

## ■ PORT SCANNER WORKING LOGIC

# Port Scanner Logic

01

**Get IP address from user**

02

**Select a range of ports**

03

**Try connecting to each port**

04

**If connection is successful → Port is OPEN**

05

**Display open ports**

**This is automation in cybersecurity**

## ■ VBS SCRIPT: WiFi SECURITY AWARENESS

# Important Note

- ❏ • WiFi hacking without permission is illegal
- This demo is for security awareness only

## VBS Script Usage

- View saved WiFi profiles in a system
- Understand risks of saved credentials

## Learning

- Importance of system security

## CONCLUSION

# Learning Outcomes



### Automation Basics

Understand  
automation basics



### Python Concepts

Learn Python  
automation concepts



### Security Tools

Understand simple  
security tools



### Ethical Practices

Learn ethical  
cybersecurity  
practices

# Conclusion

Automation should be used to secure systems, not to misuse them.