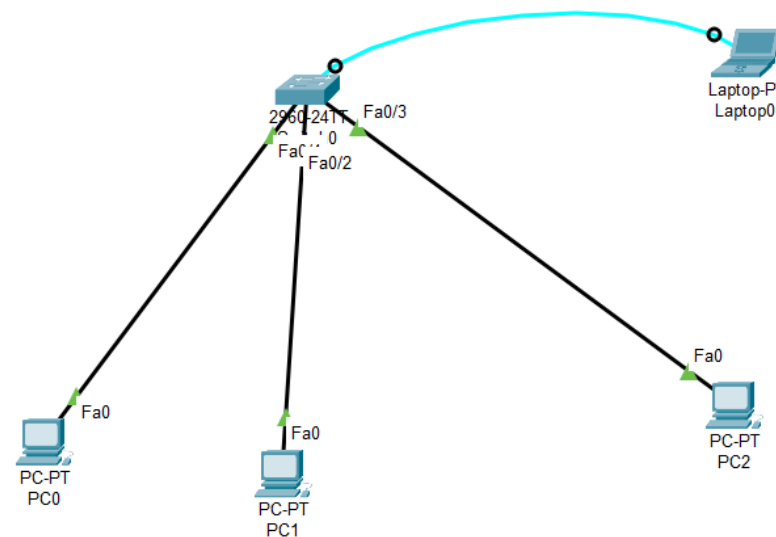


# Network Security

# Port security

- ▶ Switch port with mac address
- ▶ **Mode of port should be access**
  - ▶ switchport mo access
- ▶ **Activate the Switchport security**
  - ▶ switchport port-security
- ▶ **Allow only current mac address to access the ports**
  - ▶ switchport port-security mac-address sticky
- ▶ **When security violation occur what the action will be done?**



# Security violation actions

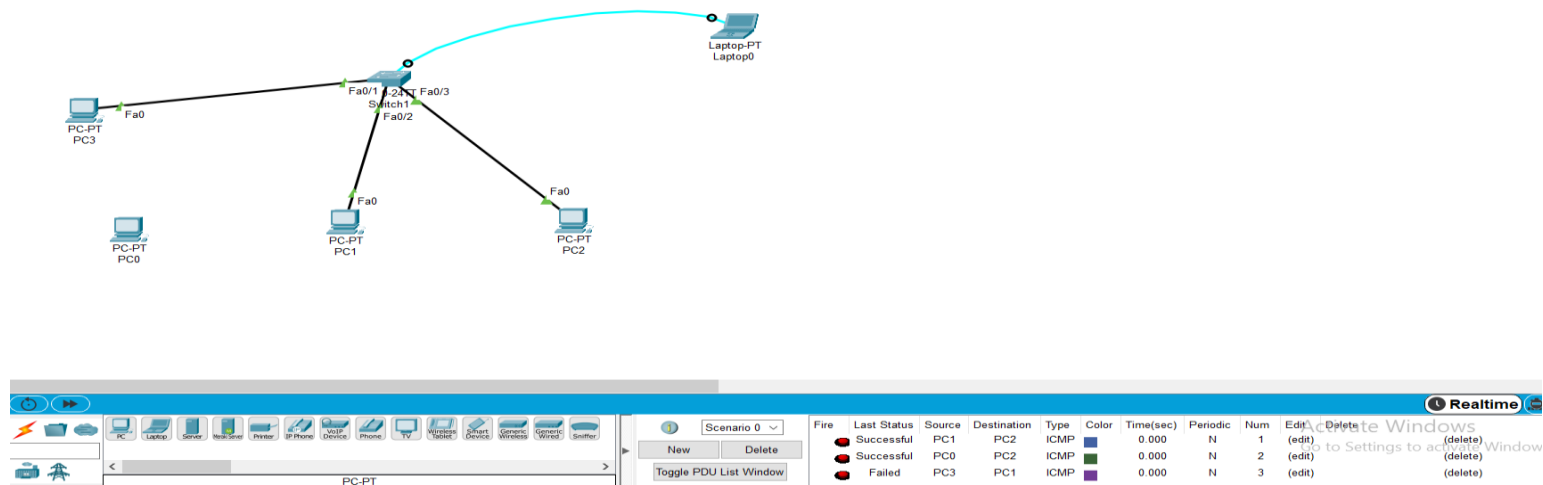
- ▶ **Switch(config-if-range)#switchport port-security violation ?**
  1. **Protect** Security violation **protect** mode: not connect and keeps the port up and does not send a SNMP message.
  2. **Restrict** Security violation **restrict** mode: not connect and keeps the port up and send a **SNMP** message
  3. **Shutdown** Security violation **shutdown** mode: will close the port

# Port security commands

- ▶ Switch>en
- ▶ Switch#conf t
- ▶ Switch(config)#int range f0/1-3
- ▶ Switch(config-if-range)#switchport mo access
- ▶ Switch(config-if-range)#switchport port-security
- ▶ Switch(config-if-range)#switchport port-security mac-address sticky
- ▶ Switch(config-if-range)#switchport port-security violation ?
  - ▶ protect Security violation protect mode
  - ▶ restrict Security violation restrict mode
  - ▶ shutdown Security violation shutdown mode
- ▶ Switch(config-if-range)#switchport port-security violation **restrict**

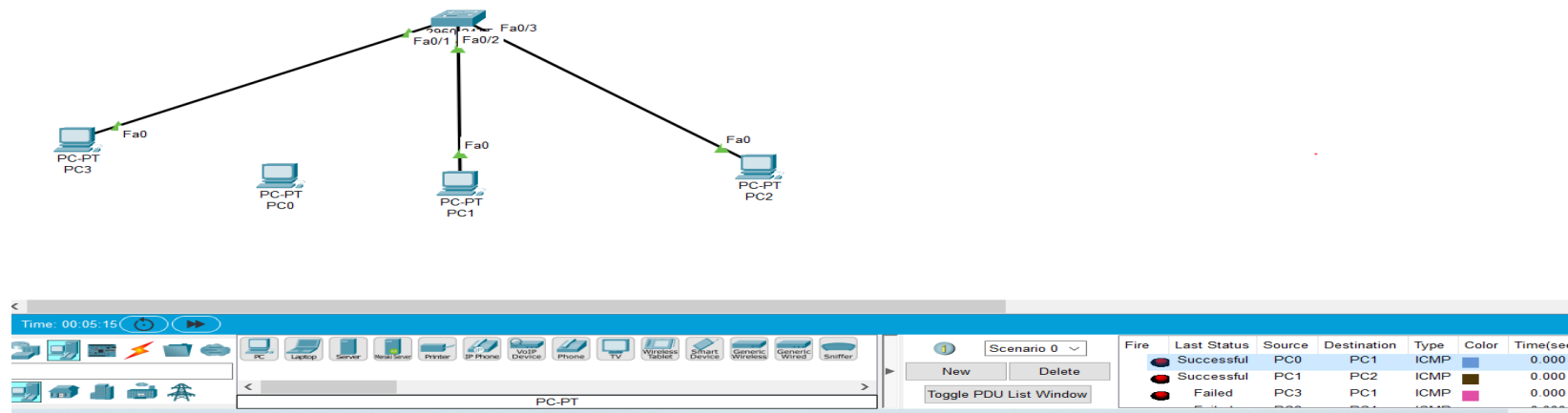
# Test connection

- ▶ when switchport port-security violation **restrict**



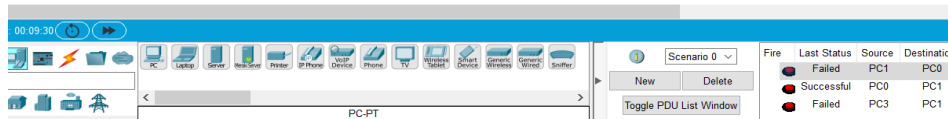
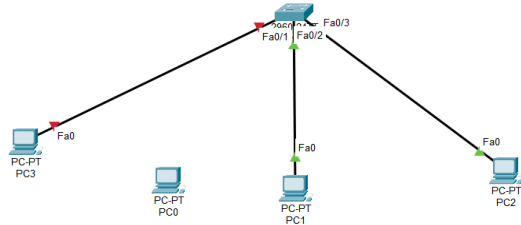
# Test connection

- ▶ When Security violation **protect mode** and ping from pc to the new connected pc



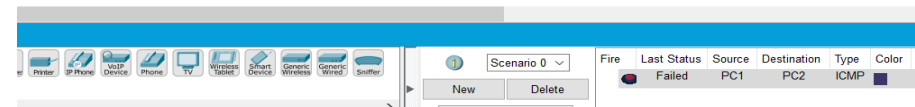
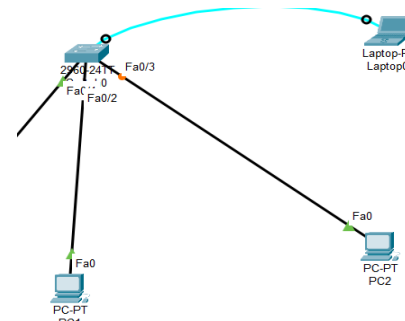
# Test connection

- ▶ When Security violation **shutdown mode** and ping from pc to the new connected pc



Created By Shereen khalf

- ▶ When return cable to Pc3 the ping command fail as the port is shut down



11/29/2021

# Switch Device Security

- ▶ **Password creation for privilege mode**
  - ▶ Switch(config)#enable password 123
- ▶ **Create Encrypted password**
  - ▶ Switch(config)#enable secret 1234
- ▶ **Password creation for user mode (console password)**
  - ▶ Switch(config)#line console 0
  - ▶ Switch(config-line)#password 123
  - ▶ Switch(config-line)#login
- ▶ **Encrypt all passwords**
  - ▶ Switch(config)#service password-encryption



# Thank You