

Module 1:

# Introduction to Computer System Servicing

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# Overview

- Discuss the overview of the Computer System Servicing
- Components of a Computer System
- Safety Procedures and Practices



# Lesson 1.1

## Overview of Computer System Servicing



# Computer System Servicing (CSS)

- The CSS refers to the process of **installing, maintaining, troubleshooting, and repairing** computer hardware and software components
- It encompasses a wide range of tasks performed by IT professionals or technicians to ensure that computers and related devices operate efficiently and effectively.





# Importance of CSS

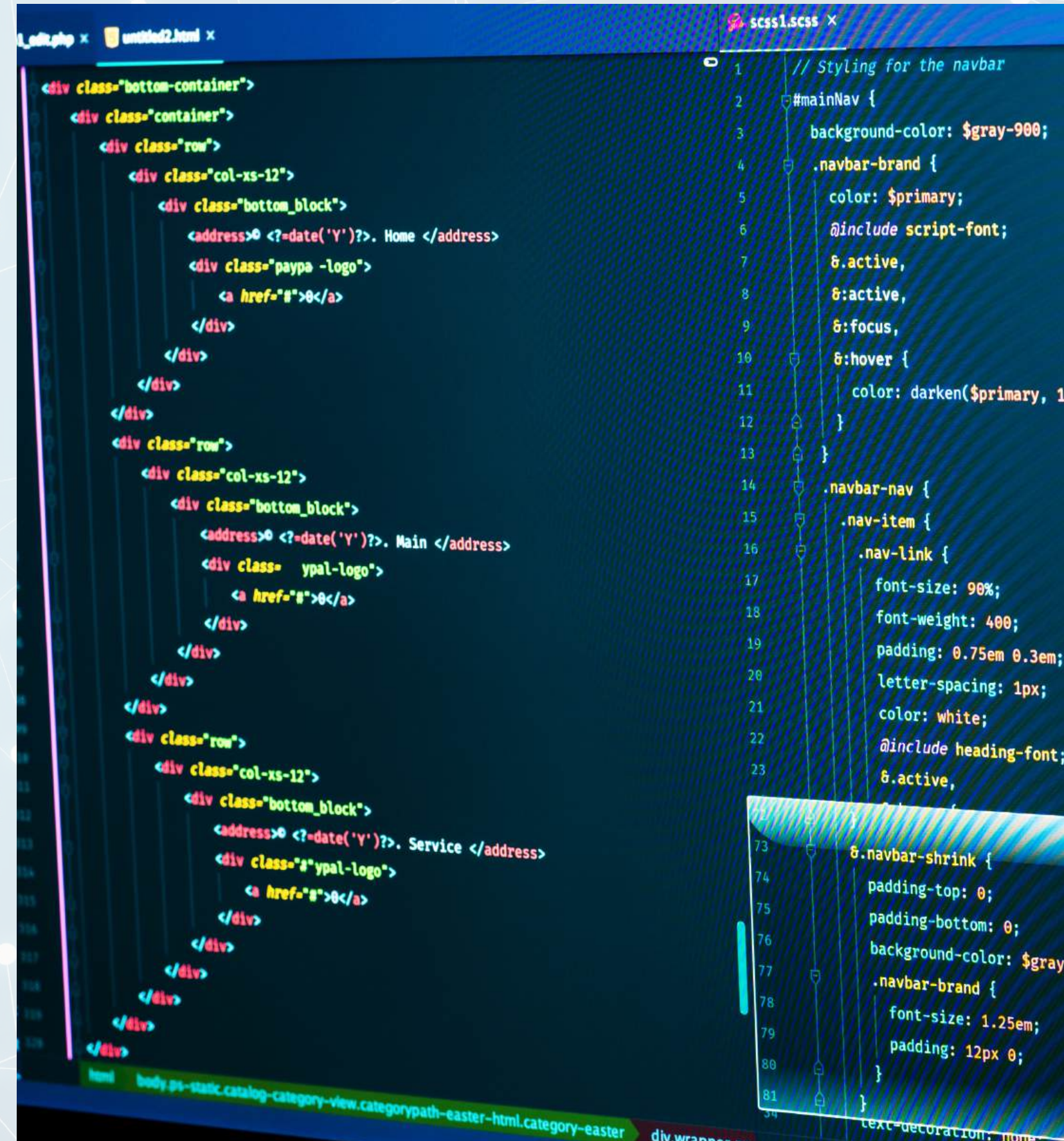
- Ensures System Reliability and Performance
- Extends the Lifespan of Equipment
- Enhances Security and Data Protection
- Supports Business Continuity
- Improves User Productivity
- Reduces Repair and Replacement Costs





# Application in Real-World

- **Educational Institutions** - Installing software for learning management systems (LMS)
  - Maintaining computers used for research, teaching, and exams
- **Offices and Corporate Settings** - Managing hardware and software systems for daily operations
  - Supporting employee workstations and resolving IT tickets
- **Call Centers and BPOs** - Ensuring uninterrupted service through PC and network maintenance
  - Regular hardware checks to avoid audio/mic malfunctions

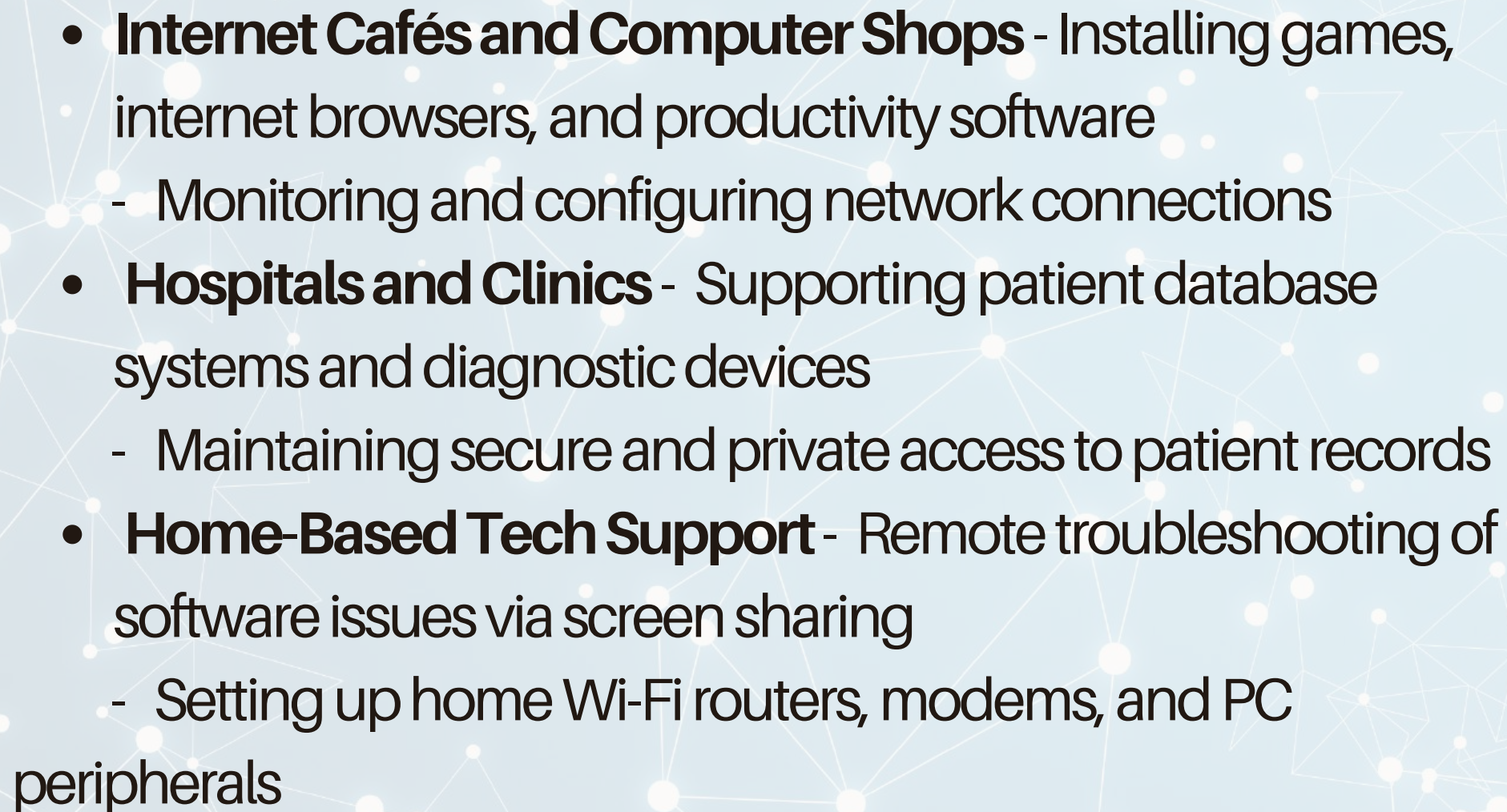


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<div class="bottom-container">
  <div class="container">
    <div class="row">
      <div class="col-xs-12">
        <div class="bottom_block">
          <address><?date('Y')?. Home </address>
          <div class="paypa -logo">
            <a href="#"></a>
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</div>
body ps-static.catalog-category-view.categorypath-easter.html.category-easter
div.wrapper ps
1 // Styling for the navbar
2 #mainNav {
3   background-color: $gray-900;
4   .navbar-brand {
5     color: $primary;
6     @include script-font;
7     &.active,
8     &:active,
9     &:focus,
10    &:hover {
11      color: darken($primary, 1
12    }
13  }
14  .navbar-nav {
15    .nav-item {
16      .nav-link {
17        font-size: 90%;
18        font-weight: 400;
19        padding: 0.75em 0.3em;
20        letter-spacing: 1px;
21        color: white;
22        @include heading-font;
23        &.active,
24        &:active,
25        &:focus,
26        &:hover {
27          color: $primary;
28          text-decoration: none;
29        }
30      }
31    }
32  }
33  &.navbar-shrink {
34    padding-top: 0;
35    padding-bottom: 0;
36    background-color: $gray
37  }
38  .navbar-brand {
39    font-size: 1.25em;
40    padding: 12px 0;
41  }
42  }
43  text-decoration: none;
  
```



# Application in Real-World

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- **Internet Cafés and Computer Shops** - Installing games, internet browsers, and productivity software
    - Monitoring and configuring network connections
  - **Hospitals and Clinics** - Supporting patient database systems and diagnostic devices
    - Maintaining secure and private access to patient records
  - **Home-Based Tech Support** - Remote troubleshooting of software issues via screen sharing
    - Setting up home Wi-Fi routers, modems, and PC peripherals



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# Key roles of a Computer System Servicing Technician

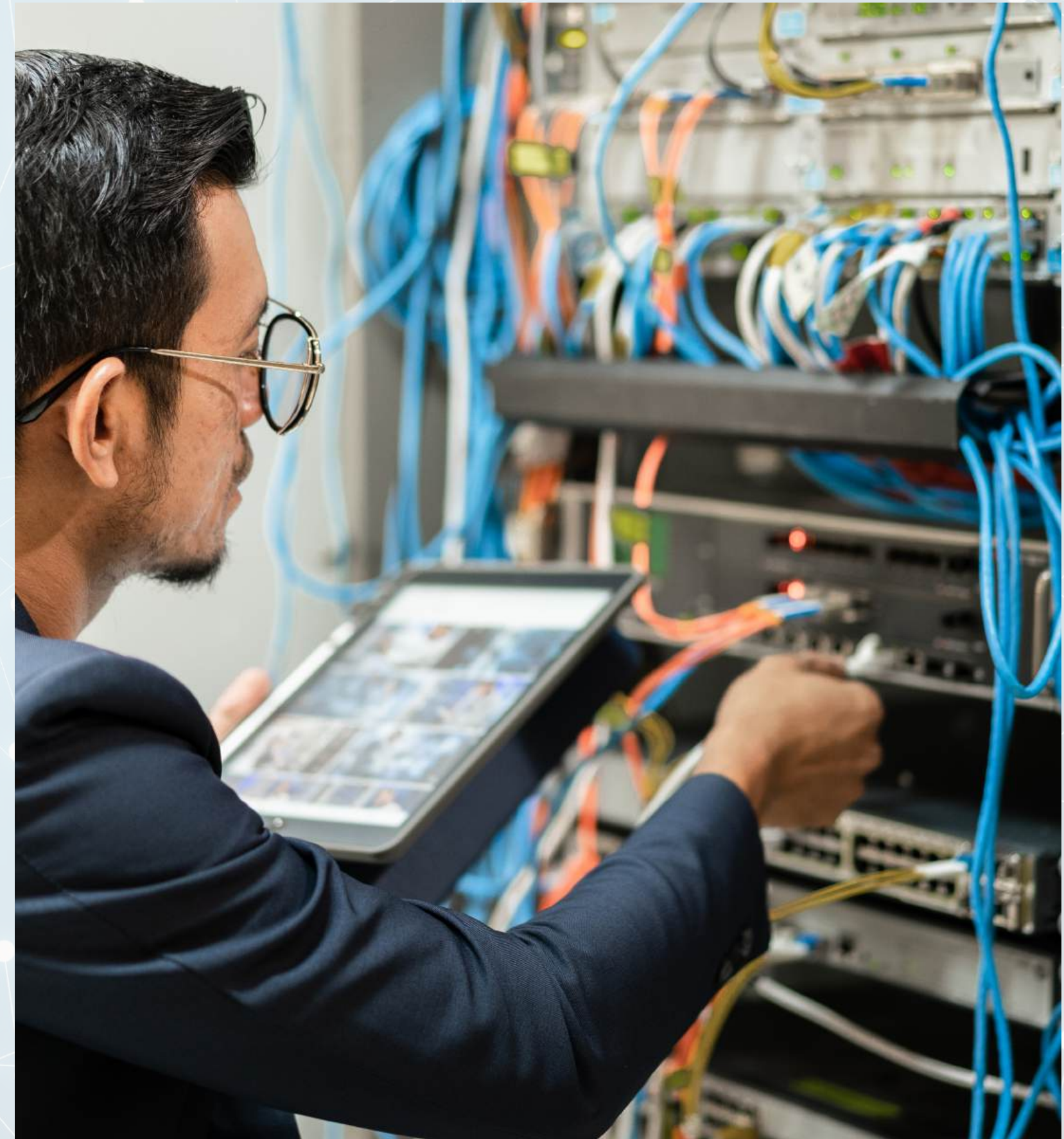
- Installer
- Troubleshooter
- Maintainer
- Technical Support Provider
- Network Assistant
- Documentation Handler
- Security Enforcer





# Responsibilities

- Assemble and disassemble computer hardware
- Install and update software and drivers
- Backup and restore files or systems
- Monitor system performance and health
- Respond to hardware failures and software crashes
- Educate users on basic troubleshooting and safety
- Maintain inventory of tools, components, and spare parts





# Qualities of a Good Technician

- Analytical and detail-oriented
- Excellent problem-solving skills
- Patient and customer-focused
- Willing to learn and adapt to new technologies





# Lesson 1.2

## Components of a Computer System





# Input Devices

- **Keyboard** – for typing text and executing commands
- **Mouse** – to point, click, and navigate the interface
- **Scanner** – converts physical documents into digital format
- **Microphone** – captures voice or sound input
- **Webcam** – captures video input for communication





# Output Devices

- **Monitor** – displays visual output (text, images, videos)
- **Printer** – produces physical (hard copy) output
- **Speakers** – output sound or audio
- **Projector** – enlarges visual display for presentations





# Storage Devices

- **Hard Disk Drive (HDD)** – magnetic storage with large capacity
- **Solid State Drive (SSD)** – faster, durable flash-based storage
- **USB Flash Drive** – portable storage
- **Optical Discs (CD/DVD)** – used for media or backup storage





# Processing Unit

- **CPU (Central Processing Unit)** – performs calculations and runs instructions
- **RAM (Random Access Memory)** – temporarily stores data for quick access
- **Motherboard** – main circuit board that connects all hardware components





# Lesson 1.3

## Safety Procedures and Practices



# What is ESD?

- Electrostatic discharge is a sudden flow of electricity between two electrically charged objects. It can damage sensitive components like RAM, motherboards, and CPUs.





# How to Prevent ESD?

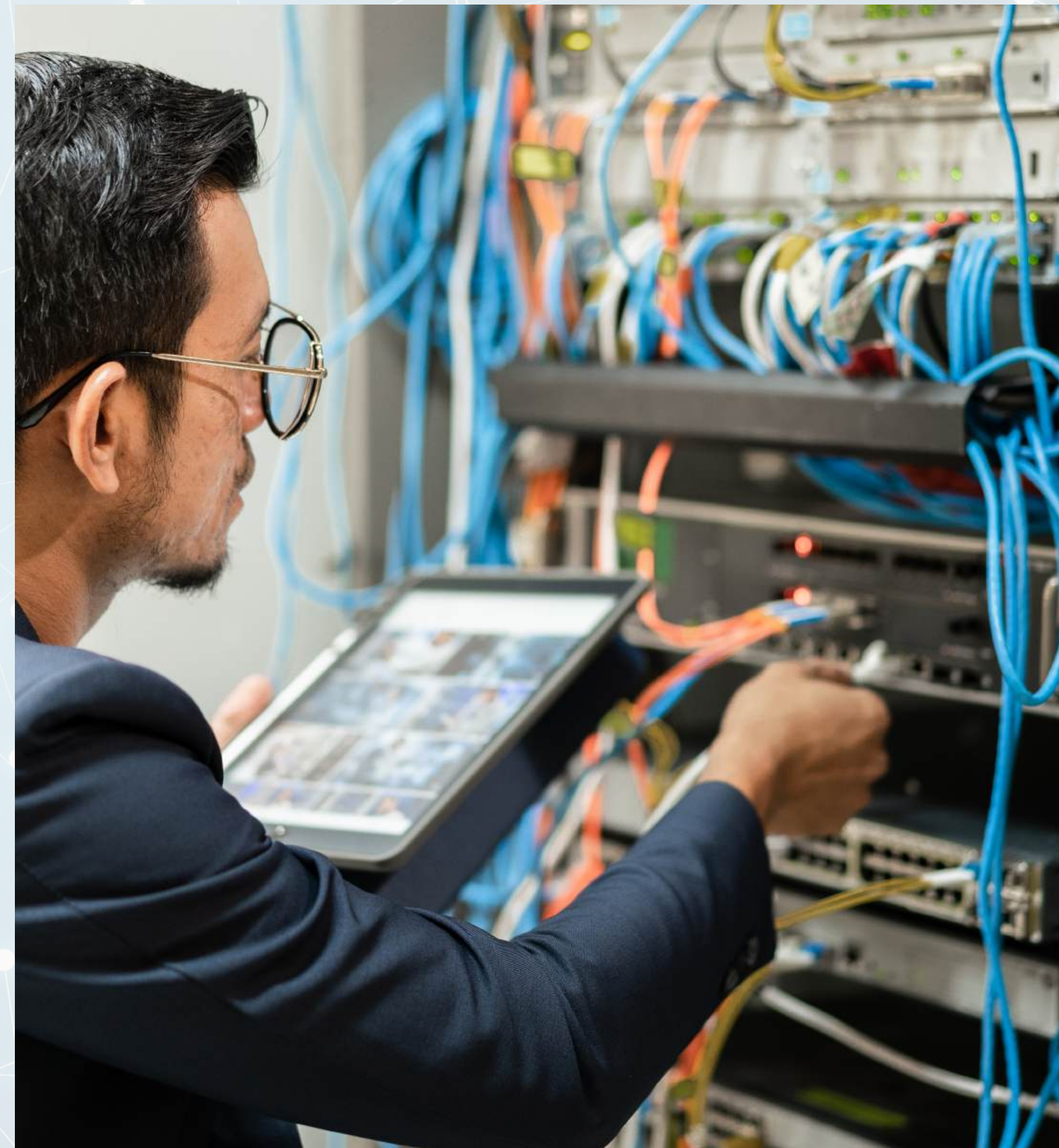
- Use an anti-static wrist strap and clip it to a grounded object.
- Work on an anti-static mat.
- Avoid touching metal connectors or pins directly.
- Discharge static from your body by touching a grounded metal object before handling hardware.





# Proper Handling of Hardware

- Always power off and unplug the device before opening it.
- Hold components like RAM, CPUs, or cards by the edges, not by the pins or circuitry.
- Store unused components in anti-static bags or containers.
- Avoid placing parts on conductive surfaces (e.g., metal tables).





# Tool Safety and Workspace Management

- Use the right tools for the job—magnetized screwdrivers can help but should be used cautiously.
- Keep your workspace clean and organized to avoid losing screws or damaging parts.
- Avoid food or drinks near electronics.
- Ensure adequate lighting and ventilation.
- Store tools and parts in labeled containers for easy access.

