



Supplementary Lesson 1

Name: _____
Last Name First Name M.I.

Grade and Section: _____

TOPIC: INTRODUCTION TO COMPUTER SYSTEMS SERVICING (CSS)

Computer Systems Servicing (CSS) is the process of maintaining, troubleshooting, and repairing computer systems and networks (PCMag, n.d.).

Career Opportunities

In computer systems servicing (CSS), "industry" refers to the sector or field including companies, organizations, and experts engaged in the upkeep, repair, and optimization of computer systems and associated technologies.

Among the many tasks in this sector are hardware repair, software installation and configuration, network setup and management, troubleshooting, and system optimization. In this field, professionals may be technicians, network administrators, IT support specialists, or systems analysts.

Important elements of the CSS sector are industry standards, regulatory compliance, technical developments, and the competitive environment. Further important elements influencing the dynamics of the sector are client segments, market analysis, and service demand.

Gaining an understanding of "industry" in relation to CSS is necessary to appreciate the larger environment in which companies' function, spot chances for professional advancement or business endeavors, and negotiate the opportunities and problems in this fast changing area.

The field of Computer Systems Servicing offers various career paths. For instance, an IT support specialist helps users troubleshoot and resolve technical issues, while a network administrator manages and maintains network infrastructure. Other roles include computer repair technicians who fix hardware issues and system analysts who optimize computer systems (Bureau of Labor Statistics, n.d.).

Role	Description	Key Skills
IT Support Specialist	Helps users troubleshoot and resolve technical issues.	Problem-solving, communication, operating systems knowledge.
Network Administrator	Manages and maintains network infrastructure.	Network protocols, hardware knowledge, security measures.
Computer Repair Technician	Diagnoses and fixes hardware issues.	Hardware troubleshooting, repair skills, diagnostic tools.
System Analyst	Evaluates and optimizes computer systems	Analytical thinking, system development, effective communication.

These roles are essential as technology becomes more integral to daily life and business operations. The demand for CSS professionals is growing, offering numerous opportunities for those with the right skills and training (Bureau of Labor Statistics, n.d.).

Business Opportunities

The CSS industry is full of opportunities for entrepreneurs. From repair shops to IT consulting and cybersecurity services, the demand for these services is growing as technology becomes more integral to business and daily life.

Business Opportunity	Model	Services	Market Demand
Computer Repair Shop	Local shop providing hardware repairs and software troubleshooting.	Hardware repairs, software troubleshooting, system upgrades.	High due to widespread computer use.
IT Consulting Firm	Offers expert advice on optimizing IT infrastructure.	IT strategy, network design, cybersecurity, cloud solutions.	Growing as businesses seek to stay competitive and secure.
Managed IT Services	Provides ongoing IT support and management.	Network monitoring, data backup, cybersecurity, helpdesk support.	Increasing as companies prefer outsourcing IT functions.
Custom Software Development	Develops tailored software solutions for businesses.	Application development, system integration, software maintenance.	High for bespoke applications that enhance business operations.
Cybersecurity Services	Protects businesses from cyber threats.	Vulnerability assessments, security audits, incident response.	Rising with the increase in cyber threats.

Tools and Equipments in CSS

A **tool** is a handheld device that aids in accomplishing a task. To complete hardware repairs, it is important to have a toolkit that should contain all of the necessary tools. As you gain experience, you will learn which tools are available for different types of jobs. Tools are grouped into four categories:

☐ **Electro-Static Discharge Tools**

Anti-static wrist strap - it is used to prevent ESD damage to computer equipment.	
Anti-static mat - it is used to stand on or place hardware to prevent static electricity from building up.	

☐ Hand Tools

Flat head screw driver - it is used to loosen or tighten slotted screws.	
Philips head screwdriver - it is used to loosen or tighten cross head screws.	
Hex screwdriver - it is sometimes called a nut driver. It is used to tighten nuts.	
Needle-nose pliers - it is used to hold small parts and bend wires.	
Wire cutter - it is used to strip and cut wires.	
Tweezers - it is used to manipulate small parts.	
Part retriever - It is used to retrieve parts from a location that are too small for your hand to fit.	
Flashlight - it is used to light up areas that you cannot see well.	

Crimping tool - It is used in connecting wires and connectors.	
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Cleaning Tools

Lint-free cloth - it is used to clean different computer components without scratching and leaving debris.	
Compressed air canister - it is used to blow away dust and debris.	
Cable ties - it is used to bundle cables neatly inside and outside of a computer.	
Parts organizer - it is used to hold screws, jumpers, fasteners, and other small parts. It prevents them from getting mixed.	

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Diagnostic Tools

Multimeter - It is used to test the integrity of circuits and the quality of the electricity in computer components.	
Loop back adapter - It is used to test the functionality of computer ports.	

LAN tester - it is used to test the performance of your network cables.



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