U4L088

Planning and Preparing Maintenance and Diagnoses of Computers
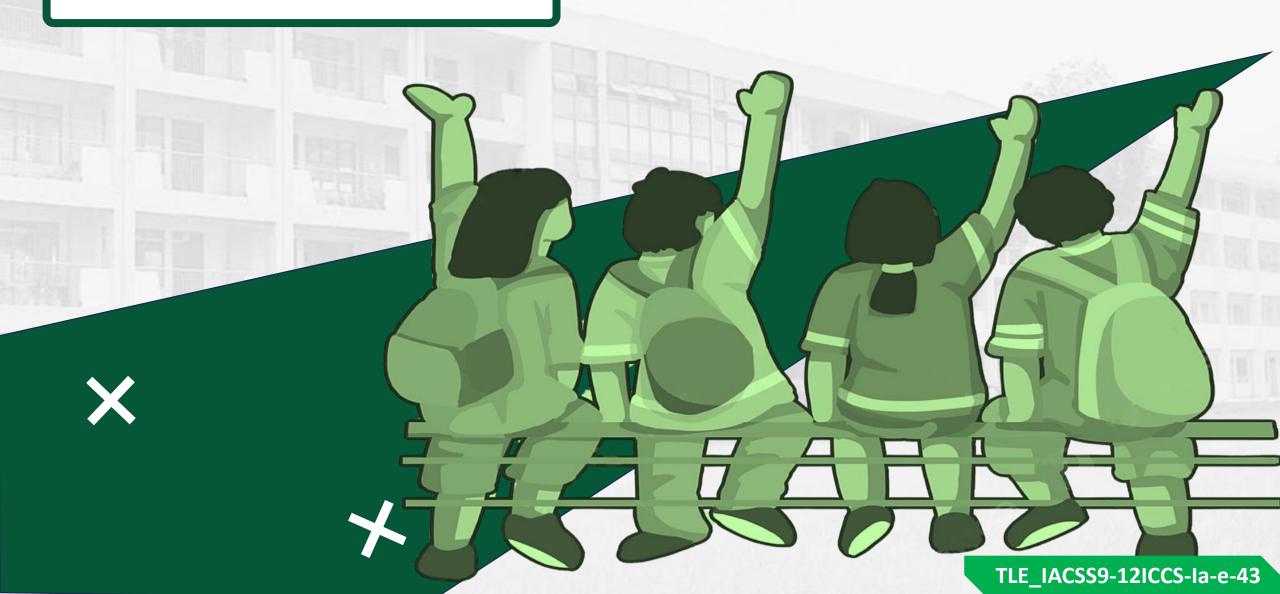
Roll Call

Recap of the Lesson

What is maintenance?

Computer Maintenance

Computer maintenance refers to a set of actions or processes that aim to ensure the proper functioning of computer equipment.

Computer Maintenance

Highly technical, carrying out computer maintenance requires specific skills in this area. This is why in most cases; the use of a computer maintenance service provider is a necessity.

Computer Maintenance

Trained and competent, this type of provider knows better than anyone the importance of computer maintenance. He then makes sure to take all the measures that will allow him to accomplish his mission efficiently and without problems.

Corrective Maintenance

It is task performed to identify, isolate, and rectify a fault so that the failed equipment or system can be restored to an operational condition within the tolerances or limits.

Preventive Maintenance

It can be described as maintenance of equipment or systems before fault occurs.

Types of Preventive Maintenance

Planned Maintenance

Condition-based Maintenance

Types of Preventive Maintenance

Planned Maintenance

Daily Back up	Monthly Back up	Yearly Back up

Try to back up your data at least once per day – no one wants to lose projects you spent hours if not days working on.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up	Monthly Back up	Yearly Back up

Run a malware scan to stay on top of virus prevention. If you have any real-time prevention tools even, then some viruses may slip by. Depending on how frequently you use the computer you can get away with doing this once a week; more frequent.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up

Monthly Back up

Yearly Back up

Run a malware scan to stay on top of virus prevention. If you have any real-time prevention tools even, then some viruses may slip by. Depending on how frequently you use the computer you can get away with doing this once a week; more frequent computer users should do this daily.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up | **Monthly Back up** | **Yearly Back up**

Never shut down by using the power button – always use the option from the start menu! Never leave your computer on overnight either to save electricity or to prevent wear and tear.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up	Monthly Back up	Yearly Back up

Use the defragmentation tool to keep your PC running fast and efficiently. This tool puts files back together that are split apart into different folders in your PC over time.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up   **Monthly Back up**   **Yearly Back up**

Scan your hard drive for errors to make sure there are no physical problems occurring. This doesn't check for viruses or malware but more so physical and logical problems.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up   **Monthly Back up**   **Yearly Back up**

Clean out your disk drive every few weeks. Similar to defragmentation, these are small pieces of trash that quietly accumulate over time.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up	Monthly Back up	Yearly Back up

Backup your hard drive as an image, so if your PC ever crashes you won't have to reinstall from scratch. This should be done twice a year, just to be safe. Either you, a friend, or a professional should do a thorough cleaning of the computer. This goes beyond simply using compressed air and opening it up to get rid of all of the smaller bits and pieces of dirt stuck in there.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up	Monthly Back up	Yearly Back up

As needed:

Uninstall programs that you don't use anymore to free up space.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up	Monthly Back up	Yearly Back up

As needed:

Practice safe browsing by not downloading files from or spending time on sites you aren't familiar with or may be untrustworthy since this is how people generally get malware.

Types of Preventive Maintenance

Planned Maintenance

Daily Back up	Monthly Back up	Yearly Back up

As needed:

Change passwords frequently as a general preventative measure against hackers.

Plan Maintenance Procedures

Design a systematic maintenance plan for Hardware

✓ Design and monitoring, evaluating and updating plan
✓ Place your computer in a well-ventilated area
✓ Schedule use of computer for its longer life
✓ Move the computer only when it is turned off and unplugged
✓ Treat your computer properly
✓ Maintain your hard disk

Plan Maintenance Procedures

Design a systematic maintenance plan for Software

✓ Back-up your files
✓ Install or secure password
✓ Delete temporary files
✓ Update anti-virus and spyware

Types of Preventive Maintenance

Condition based Maintenance

It is a maintenance strategy that uses the actual condition of the asset to decide what maintenance needs to be done. CBM dictates that maintenance should only be performed when certain indicators show decreasing performance or upcoming failure.

Types of Preventive Maintenance

Condition based Maintenance

Checking a machine for these indicators may include non-invasive measurements, visual inspection, performance data and scheduled tests. Condition data can be gathered at certain intervals, or continuously.

Sample Maintenance Plan

	June	July	August	September	October	November	December
Anti-virus software check-up							
Disk Management							
Defragmentation Of HDD							
Troubleshoot hardware and software issues							

Example #1

Tools

It is a handheld device that aids in accomplishing a task. Tools range from traditional metal cutting part of a machine to an element of a computer program that activates and controls a particular function.

Hand Tool Maintenance

Guidelines for Hand Tools Safely

1. Use the right tool for the job

As tools are designed for specific needs, the first step in the safe hand tool is using the correct tool for the correct job. This is the reason why there are screwdrivers with various lengths and tip styles and pliers with different head shapes.

Hand Tool Maintenance

Guidelines for Hand Tools Safely

2. Use insulated tools when needed

These are designed to reduce the chance of injury if the tool should come in contact with an energized source. As we never know when a situation will arise where insulated tools are required, we need to have some insulated tools in our collections.

Hand Tool Maintenance

Guidelines for Hand Tools Safely

3. Follow general safety and maintenance practices.

Improper use of tools is not only dangerous but also shows a lack of understanding of tool safety, and disrespect for those around you, thus, following safety and maintenance practices is a must.

Hand Tool Maintenance

Guidelines for Hand Tools Safely

3. Follow general safety and maintenance practices.

Wearing approved eye protection is one of the safety practices when using a hand tool. Through it, we can protect our eyes from serious injuries. Another safety practice is keeping cutting tools like knives, bolts, cutters, and pliers sharp, lubricated, and in good repair.

Hand Tool Maintenance

Guidelines for Hand Tools Safely

3. Follow general safety and maintenance practices.

Cutting wire, bolts and similar materials must always be made at a 90-degree angle to avoid clipping the edges of the knives. Pliers must not also be rocked when attempting to cut materials. This puts tremendous side pressure on the cutting surface that can result in tool failure.

Hand Tool Maintenance

Guidelines for Hand Tools Safely

4. Use well-designed, high-quality tools

For safer and easier jobs, investing in high-quality tools is advised.

Hand Tool Maintenance

Guidelines for Hand Tools Safely

5. Other Basic Safety Rules for Hand Tools

✓ Keep your hand free from oil and grease.

✓ Handle sharp-edged and pointed tools with care by your side with the points and heavy
ends down.

✓ Secure all small work and short work with a vise or clamp.

Hand Tool Maintenance

Guidelines for Hand Tools Safely

5. Other Basic Safety Rules for Hand Tools

✓ Carry tools with their storage box for protection; never put them in your pocket.

✓ Use tools in good condition, not those that are loose or cracked.

✓ Make sure your tools are all with handles.

✓ Clean the tools after use, return them to the proper storage place.

Activity:

Group yourself into TWO groups. Group H will create a Hardware Maintenance Plan and Group S will create a Software Maintenance plan. You have to do it for 40 minutes.

1. Why does tool should be use accordingly?

2. Is it recommendable to use an alternative tool?

Every bug in software and every flaw in hardware is just a puzzle waiting for a sharp mind to solve. Be the one who turns glitches into breakthroughs.

You are now ready to move in the next lesson.