PRACTICAL-8

Aim: To Study and troubleshooting of keyboard and mouse.

➢ **Keyboard: -**

A computer keyboard is a peripheral input device modeled after the typewriter keyboard which uses an arrangement of buttons or keys to act as mechanical levers or electronic switches. ... However, producing some symbols may require pressing and holding several keys simultaneously or in sequence.

➢ **Types Of Keyboards: -**

1. Qwerty Keyboards.

2. Wired Keyboards.

3. Ergonomic Keyboards.

4. Wireless Keyboards.

5. USB Keyboards.

6. Magic Keyboards.

1.Qwerty Keyboards: -

QWERTY is a keyboard design for Latin-script alphabets. The name comes from the order of the first six keys on the top left letter row of the keyboard. The QWERTY design is based on a layout created for the Sholes and Glidden typewriter and sold to E. Remington and Sons in 1873.

2.Wired Keyboards: -

A wired keyboard means there is a wire connecting your keyboard to your computer. At the end of the wire is a USB plug that goes into a USB port on your computer. Wired keyboards are extremely reliable—there is little that could go wrong with this direct connection.

3. Ergonomic Keyboards.

An ergonomic keyboard is a computer keyboard designed with ergonomic considerations to minimize muscle strain, fatigue, and other problems. Ergonomic keyboards for two-handed typists are typically constructed in a V shape, allowing the hands to rest at a more natural angle.

4. Wireless Keyboards.

A wireless keyboard is a computer keyboard that allows the user to communicate with computers, tablets, or laptops with the help of radio frequency, such as WiFi and Bluetooth or with infrared technology. It is common for wireless keyboards available these days to be accompanied by a wireless mouse.

5. USB Keyboards.

A keyboard is for putting information including letters, words and numbers into your computer. You press the individual buttons on the keyboard when you type. The number keys across the top of the keyboard are also found on the right of the keyboard. The letter keys are in the center of the keyboard.

6. Magic Keyboards.

The Magic Keyboard is a family of wireless computer keyboards produced by Apple Inc. The keyboards are bundled with the iMac and Mac Pro and sold as standalone products, replacing the Apple Wireless Keyboard product line.

> **Troubleshooting of Keyboard: -**

1. Keyboard Doesn't Do Anything.

Troubleshooting a keyboard that doesn't work at all often tends to be an easy fix. Make sure the keyboard is plugged into the computer correctly. Shut down the computer first, and then unplug the keyboard from the port. Verify that it is in the correct port and then restart the computer. Not only might the keyboard have been plugged into the wrong port, but if you have a PS/2 port and the keyboard cable was inserted while the computer was turned on the computer might not have recognized the keyboard.

If the keyboard is still unresponsive after trying these troubleshooting steps, check the status of keyboard's driver. To do so, go to the **Control Panel** from the **Start** menu. Open **System** from Classic View or **System and Maintenance** from Category View. Open **Device Manager**. Expand **Keyboards** by clicking the "+" to the left of it. Right click the name of the keyboard you are troubleshooting and select **Properties**. On the **General** tab, check the Device Status box to see if there is a problem detected. If not, go to the **Driver** tab. Click the **Update Driver** button and search for updated software for the keyboard.

2.Keys Don't Work.

If only some of the keys on your keyboard are not working, there are a few troubleshooting steps you can try to fix this problem. The first would be to check the device status and update the keyboard's driver.

Follow the same steps listed in the previous section to do so.

When the driver is updated, restart the computer and open a text editor such as Notepad. You can do so by right clicking any blank area of the computer desktop, pointing to New and selecting Text Document. Type "the quick brown fox jumped over the lazy dog" or press the keys that were not working before to check and see whether the keyboard is now working properly. If not, your keyboard may simply need to be cleaned. Read How to Clean a Keyboard or How to Clean a Laptop Keyboard for tips on safely and properly cleaning the keyboard.

3.Keys Don't Match.

Perhaps you are troubleshooting a different problem in which the keys you press on the keyboard do not match the characters that are displayed on the computer. If so, your computer may be using the incorrect language settings.

To troubleshoot and fix this problem, open the Control Panel from the Start Menu and select Regional and Language Options. Go through the various tabs of the Regional and Language Options dialog box and make sure the correct language and country or region are selected. Don't forget to click Apply after making any changes.

4.Special Keys Don't Work.

If the problem you are troubleshooting consists of keys such as the Windows key or the Shift key not working, the problem should be easy to fix. It is likely that the Sticky Keys feature was inadvertently enabled. Simply press the **Shift** key five times in a row. Sticky Keys will be turned off and your keyboard will be working properly once more.

➢ Mouse: -

The mouse is a small, movable device that lets you control a range of things on a computer. Most types of mouse have two buttons, and some will have a wheel in between the buttons. Most types of mouse connect to the computer with a cable, and use the computer's power to work. Some types of mouse are wireless.

➢ Types Of Mouse: -

1.Wired Mouse.

2.Optical Mouse.

3.Laser Mouse.

4.Gaming Mouse.

5.Mechanical Mouse.

6.Wireless Mouse.

1.Wired Mouse.

The pointer or cursor on a display screen is operated by a mouse. A mouse can roll over a flat surface, hard is a small object. The name derives from its shape, a bit like a mouse, the wire that you can imagine to be the tail of the mouse, and the fact that you will scurry along a floor. The display pointer moves in the same direction when you move the mouse.

2.Optical Mouse.

It is the mouse that lifts Joe, you see everywhere today. Nevertheless, an optical mouse uses an LED, sensing changes to the reflected light and detecting the movement rather than using a ball of rubbers and mechanical sensors. No sweet rubber balls to cleanse. Nevertheless, the optical mouse does not completely stay physically stable when light is being used in monitoring movements, but the buttons and scroll wheel are still mechanical and can be worn over time.

3.Laser Mouse.

The laser mouse is an optical mouse type, and the operating instructions are similar – to sense movement through light reflection. Nevertheless, a laser mouse uses an LED instead of a laser beam, as the name implies. Due to the different light characteristics, the mouse can primarily be used on glass and plastic surfaces, although it is not effective.

4.Gaming Mouse.

While a standard mouse typically has only 3 buttons, a game mouse has several buttons and is precise. Such additional buttons are also programmable to do various tasks … particularly for gaming purposes. Scheduling keys, useful also for non-gaming purposes. They can, for example, be used for web browsing or video replay as forward and backward buttons.

5.Mechanical Mouse.

In the old days, the mechanical mouse is what we used and one of the most popular mice in computer history. This is also called a ball mouse, as it uses a rubber ball to track motion – the ball rotates as you turn the mouse and sensors determine the direction in which you turn.

6.Wireless Mouse.

Instead of using the "usual" wires, the wireless mouse uses radio frequency to connect with the computer unit. This applies to the mouse that has no cord stitching. The equation consists of two parts: The mouse is the transmitter and gives wireless signals when shifting and clicking. The machine receives and behaves accordingly these wireless signals. As for 'Wireless Signals,' it is not universal. Some wireless mouse are standard Bluetooth, some have a wireless 2.4 GHz standard and some have their own wireless USB dongle.

➢ **Troubleshooting of Mouse: -**

1. Mouse Hardware Checks.

The hardware check for the mouse involves isolating it from its host port. Simply replace the mouse to test its electronics. If the replacement mouse works, the original mouse is probably defective. If its electronics are not working properly, few options are available for actually servicing a mouse. It might need a cleaning, or a new trackball. However, the low cost of a typical mouse generally makes it a

2. Mouse Configuration Checks.

When a mouse does not work in a Windows system, restart it and move into safe mode by pressing the F5 function key while the "Starting Windows" message is displayed. This starts the operating system with the most basic mouse driver available. If the mouse does not operate in safe mode, you must check the mouse hardware and the port to which the mouse is connected.

If the mouse works in safe mode, the problem exists with the driver you are trying to use with it. It might be corrupt or it could be having a conflict with some other driver. To check the driver, consult Device Manager. If Device Manager shows a conflict with the mouse, remove the driver and allow the system's PnP process to reinstall it.

➢ **Tips to follow for troubleshooting.**

• Verify that there is no mouse movement at all. If your computer mouse has stopped moving completely, check the obvious. Make sure the computer mouse is plugged in completely. If it is, remove the plug and examine for pins that may be damaged.

• See that the mouse stops while you're using it. If the mouse is working perfectly and suddenly stops, check the connection to see if it is loose. If the connection is fine, open up the trackball and check for any fuzz or residue trapped in the trackball chamber. Remove any residue with a cotton swab and alcohol. Remove the trackball and clean it with the cotton swab and alcohol as well.

• the mouse has a problem. Un-install the mouse and reboot the computer. Reinstall the mouse driver and reboot the computer.