Chapter 2
Computer and the Security of the User

General Troubleshooting

Troubleshooting is the process of finding out the source of troubles.

The word 'Troubleshooting' is used for hardware related problems.

Problem 1: Computer is not starting up

Solution:
i. We need to check **the main power cable** whether the connection is loose or not.
ii. We need to check **whether is power on the main power-board.**
iii. If there is no power on the main power-board, we have to **change the main power supply unit.**
iv. We have to take the device to the local service center and consult an expert service center.

Problem 2: Nothing is viewed on the monitor though the system is running.

Solution:

i. Turn off the system and unplug the power cable from the main system.
ii. **Remove the RAM from the slots**.

Image 1: RAM

iii. **Clean up the connectors of the RAM** rubbing with an eraser.
iv. Turn on the computer without installing the RAM, and notice whether you get any beep sound.
v. **If you get any beep sound, you have to understand that the RAM is faulty.**
vi. Install a new RAM if there is no display yet.
vii. Install the RAM, and check the again. Faulty RAM is the reason for at least half of the display problems.

Problem 3: The system becomes very heated, and abruptly shuts down

Solution:

    i.   Open the Casing.

    ii.   Remove **the CPU or processor fan from the motherboard**, but don't remove the processor.

Image 2:Heat sink and Fan

    iii.   Perhaps the heat sink is filled with dust that creates obstruction on the free flow of air. As a result, CPU cannot be cool.

    iv.   **Clean up Heat sink and the fan,** and install again. Now, after closing the cabinet, turn on the computer again.

    v.   If the problem is not solved, take the computer to a service center, and talk to an experienced mechanic.

Problem 4: The computer shuts down on its own at every few minutes, but it is not heated

Solution:

    i.   **Check the motherboard carefully and find out if there is any leaking or faulty capacitor has got loosened.** Tighten the capacitor and the problem will be resolved.

    ii.   Notice very carefully as **the computer is running whether any IC or any other component producing extra heat.** Be cautious. Let not the board be shorted. if it happens, go to the nearest service center.