



PRESIDENTIAL DIGITAL TALENT PROGRAMME

PROGRESS REPORT

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DUTIES

i) Computer care, maintenance, repair and network use

During our placement in the ministry we practiced most of computer care, maintenance and repair, where most of the computers required repair, upgrading and maintenance. This is because these are the computers mostly used by the staff for their daily routine, and research etc and most of the staff come with their own removable storage devices with information from various machines that can enhance the damage of some data in the machines for instance they may spread virus in machines.

Computers are essential for day to day work in the MOICT Offices the computers have to be in good working condition at all times. We worked hand in hand with the ICT officers and during this time we learnt how to detect and repair common hardware and software problem

ii) Troubleshooting

Various tests were carried out on computers, printers and their components which were suspected to be faulty. Basically, faulty components were removed and tested on a different computer upon which it was determined if the device was faulty or not. After troubleshooting, records of all faulty components were kept in preparation for repair or replacement. Some of the components tested included the mouse, keyboards, power supply units and floppy disk drives and hard disk drives.

iii) Computer repair and upgrade

Computer problems included scanning and disabling of viruses, updating antivirus software, repair or replacement of faulty components and also upgrading of computers to improve their

performance. Faulty components such as floppy disk drives, processor fans and Power Supply Unit (PSU) fans were repaired. I installed Hard Disk Drives with higher memory capacities. I learnt and practiced computer assembling and disassembling procedures.

iv) Software and operating system installation

We took part in software and operating system installation. As a legal requirement, they used genuine software and operating systems e.g. Windows 2010, Windows 2013, Windows Xp (service pack 2 and 3), Windows 7 ultimate and Windows professional which are mainly used by officers for their daily operations and for office applications. This reduces the risk of infection by viruses and also corruption by pirated software. We were able to take part in the installation of Windows Operating systems and Anti-virus software including: Kaspersky.

v) Formatting new hard disks

Before installing Operating systems, the hard disk was scanned for viruses, formatted and partitioned using a file system required by the operating system to be installed.

During their replacement of software's we learnt;

The procedure of partitioning and formatting a hard disk for instance we formatted windows 2010

How to install different operating systems on one hard disk i.e. dual boot. About operating systems Installation of computer application software.

Repairing of operating system when fails to boot properly using emergency repair disk

vi) General computer maintenance and cleaning practices

General care of computers is important to avoid the risk of breakdown. Computers in MOICT have Kaspersky anti-virus software program that is upgraded frequently. The computers are also scanned for viruses frequently to make sure that no virus attack is experienced that may lead to damage of vast data.

During computer care and maintenance practices, we learnt and applied various safety measures in assembly and disassembly of the devices in the system unit while testing, repairing or replacing them. Such safety measures included the fact that: -

- Handling each device or component with a lot of care because some of the components are Delicate.
- The computer has to be switched off before disassembly.

- All devices have to be carefully and properly unscrewed.
- Disassembled devices are placed on a clean table.
- Power and data cables are unplugged slowly to avoid breaking any pins.
- After assembling devices, all connections are counter checked before powering the computer.

vii) Network setup and administration

MOICT has a server-based network of more than 650 computers, which connects almost all the computers in the Head Office and branch offices countrywide. MOICT has expanded their network using fiber optic cable that enables faster transmission of data.

It uses star topology as its network topology.

This is because;

- It's easy to expand enabling to add more machines to the network.
- It enhances easy sharing of data, printer and the scanners.

With the help of the Technical assistant, we learnt many networking procedures and devices. We learnt how the network operates and we observed how network resources are shared and accessed. All resources and shared files were managed from the administrator's account as the officers used unique log on accounts to access the data in the machines.

The changes made in the network were recorded and the network performance was monitored to make sure the expansion had been successful.

We learned how to setup, configure a small network and to configure other computers in the network whereby different roles were assigned.

viii) Access to various Governmental sites such as: integrated financial management information system (IFMIS) and Government Human Resource Information System (GHRIS).

Through solving issues related to these two Governmental sites, we learnt that the Integrated Financial Management System could not be access over the network but users were required to access this site through a virtual private network. I also learnt on how to configure(IFMIS) In addition to that the Government Human Resource Financial Management System when opening it using certain browsers a user had to click on add exception in order to access the sites web pages.

ix) Setting up of Virtual Private Network so that they could access (IFMIS) Virtual Private Network is of essence to any organization or institution, this is because a VPN will enable users to access information securely. This was achieved through installing cisco any connect secure mobility clients.

x) Termination of Ethernet cables and Fiber optic cables

Faulty cables were replaced with newly terminated Ethernet cables. During this routine we were able to enhance our skills on termination of Ethernet cables. We also got a chance to be involved in termination of Fiber Optic Cables, We learnt on identifying faulty connectors and how to work efficiently with this cables since they are very sensitive and fragile.

xi) Taking up of inventory records

This routine took almost a week, we gathered data of all computer systems being used in the Ministry, and this included: The version of the Operating System and also Microsoft Office, the Random Access Memory (RAM), the hard disk size, model number of the system unit and also identifying computers that were not working well.

xii) Issuing of ICT equipment such as projectors.

ICT equipment could not be hand over without supervision, especially the projectors and laptops used during meetings.

xiii) Evaluation of new ICT equipment

The Ministry had received new equipment this included: Laptops, computers, printers and scanners. We had to ensure that the equipment were working effectively and also that they are as per requirement.