Introduction To Unix Line System

UNIX ASSESSMENT
TOPIC - 2

UNIX Introduction

What is UNIX?

UNIX is an operating system which was first developed in the 1960s, and has been under constant development ever since. By operating system, we mean the suite of programs which make the computer work. It is a stable, multi-user, multi-tasking system for servers, desktops and laptops.

UNIX systems also have a graphical user interface (GUI) similar to Microsoft Windows which provides an easy to use environment. However, knowledge of UNIX is required for operations which aren't covered by a graphical program, or for when there is no windows interface available, for example, in a telnet session.

Unix was originally meant to be a convenient platform for programmers developing software to be run on it and on other systems, rather than for non-programmers.

The UNIX operating system

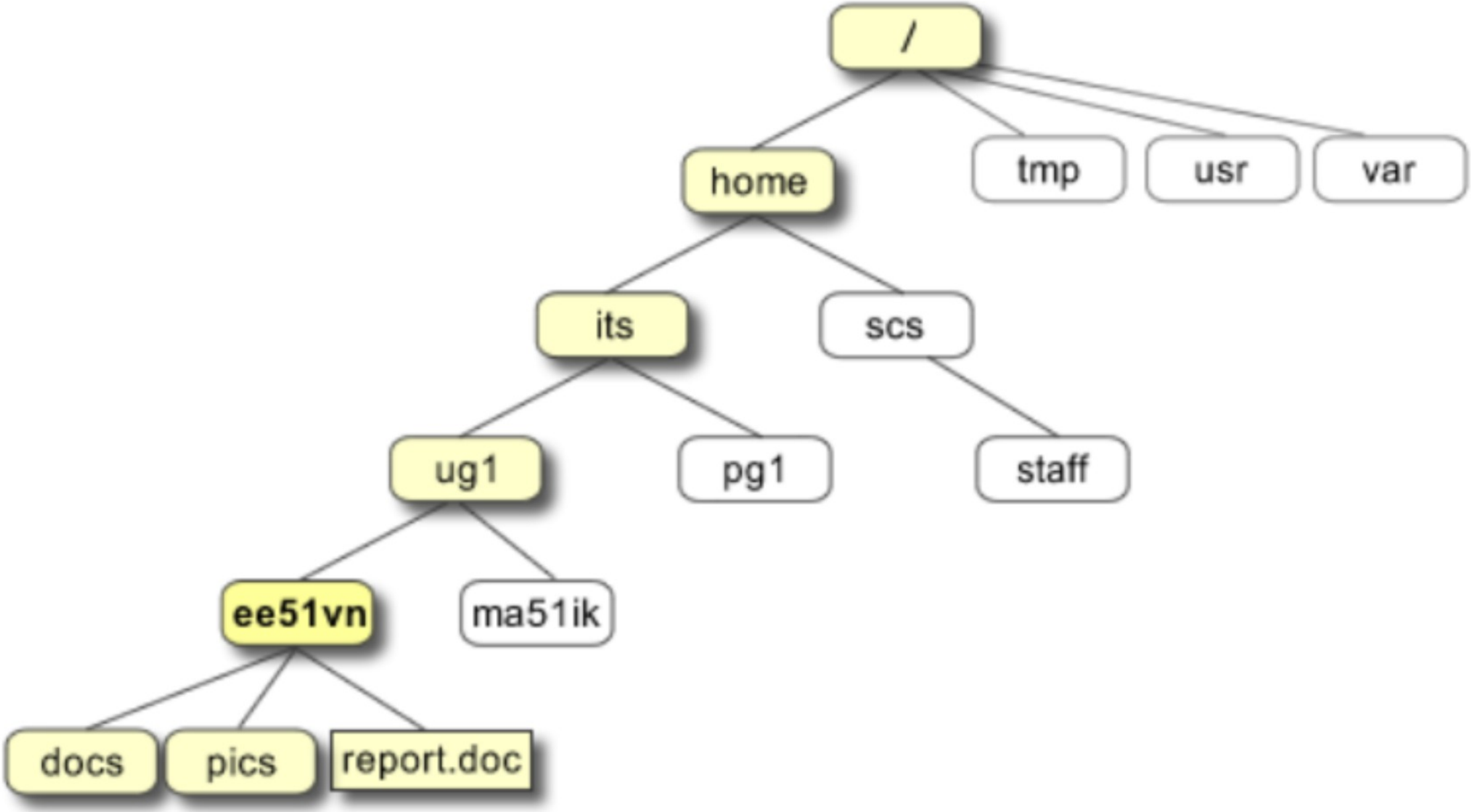
- The UNIX operating system is made up of:

The kernel

The kernel of UNIX is the hub of the operating system: it allocates time and memory to programs and handles the file store and communications in response to system calls.

The shell

The shell acts as an interface between the user and the kernel. When a user logs in, the login program checks the username and password, and then starts another program called the shell. The shell is a command line interpreter (CLI)


/
home
tmp
usr
var
its
scs
ug1
pg1
staff
ee51vn
ma51ik
docs
pics
report.doc

Basic Unix Commands

- pwd *(print working directory)*
- *cd (change directory)*
- *mkdir (make directory)*
- *rmdir (remove directory)*
- *ls (list files)*
- *cat (concatenate files)*
- *cp (copy files)*
- *mv (move files)*
- *rm (remove files)*
- *nano (simple text editor)*
- *chmod (change access permissions)*

Advanced Unix Commands

- *basename – get filename from the full path (remove directory names)*
- *find – finding files and directories in Unix*
- *kill – kill a process (or send a specific signal to it)*
- *last – show history of user logins and reboot/shutdown commands*
- *grep – find and extract lines from text*
- *mkfs – make new filesystem*
- *uname – print Unix system information: hostname, kernel version, etc*
- *su – switch user (commonly used to become root)*
- *sudo – run commands with elevated (usually root-like) privileges*

List current contents of directory

```
guru99@VirtualBox:~$ ls
Desktop    Downloads          Music     Public   sample1  Templates
Documents  examples.desktop   Pictures  sample   sample2  Videos
```

Remove the file sample1

```
guru99@VirtualBox:~$ rm sample1
```

List directory , to check file has been deleted

```
guru99@VirtualBox:~$ ls
Desktop    Downloads          Music     Public   sample2    Videos
Documents  examples.desktop   Pictures  sample   Templates
guru99@VirtualBox:~$
```

Comparing Unix and Linux

- Linux is nothing but a UNIX clone which is written Linus Torvalds from scratch with the help of some hackers across the globe.
- Unix and Unix-like operating systems are a family of computer operating systems that derive from the original Unix System from Bell Labs which can be traced back to 1965.
- Linux is the most popular variant and there comes in a number of different distributions.
- Unix is a family of multitasking, portable, multi-user computer operating systems, which also have time-sharing configurations.
- Unix systems use a centralized OS kernel which is responsible for managing the entire system.

Shell Scripting Tutorial

- A **shell script** is a computer program designed to be run by the Unix Shell, a command line interpreter.The various dialects of shell scripts are considered to be scripting language.Typical operations performed by shell scripts include file manipulation, program execution, and printing text. A script which sets up the environment, runs the program, and does any necessary cleanup, logging, etc. is called a **wrapper**.
- The term is also used more generally to mean the automated mode of running an operating system shell; in specific operating systems they are called other things such as batch files,command procedures, and shell scripts,and mainframe operating systems are associated with a number of terms.


UNIX
UNIPLEXED
INFORMATION
COMPUTING SYSTEM