system files/ user files are arranged.

Shell – Linux provides a special interpreter program which can be used to execute commands of the operating system. It can be used to do various types of operations, call application programs. etc.

Security – Linux provides user security using authentication features like password protection/ controlled access to specific files/ encryption of data.

Architecture
The following illustration shows the architecture of a Linux system –

Linux Operating System Architecture
The architecture of a Linux System consists of the following layers –

Hardware layer – Hardware consists of all peripheral devices (RAM/ HDD/ CPU etc).

Kernel – It is the core component of Operating System, interacts directly with hardware, provides low level services to upper layer components.

Shell – An interface to kernel, hiding complexity of kernel's functions from users. The shell takes commands from the user and executes kernel's functions.

Utilities – Utility programs that provide the user most of the functionalities of an operating systems.

A program is a piece of code which may be a single line or millions of lines. A computer program is usually written by a computer programmer in a programming language. For example, here is a simple program written in C progra