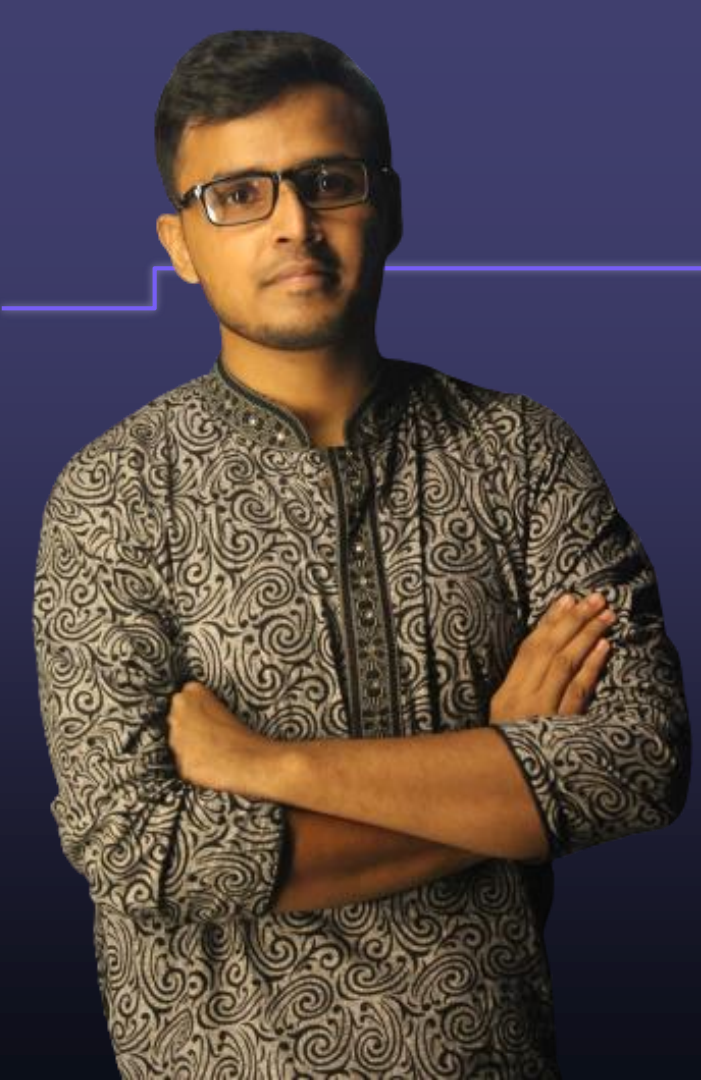
Linux

Live Online Workshop – IEEE BUBT SB



Sakib Haque Zisan

Mentor, Cyber Security Researcher.

Instructor,
The Tech-Cher Bd

Team owner,
Bengal Black Diamond
Gray Hat Hacker's Community.

CEO & Founder,
Byte Capsule Ltd.

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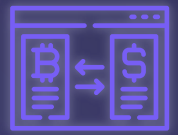
About Linux

What is Linux ?

Components of Linux System

Linux Operating System has primarily three components....



Kernel

Kernel is the core part of Linux. It is responsible for all major activities of this operating system.

System Library

System libraries are special functions or programs using which application programs or system utilities accesses Kernel's features.

System Utility

System Utility programs are responsible to do specialized, individual level tasks.

Distributions of Linux

01

Red Hat Enterprise Linux

Commercial Linux distribution intended for Servers & Workstations.

02

Fedora

Sponsored by Red Hat, is the Foundation for the Commercial Red Hat EL.

03

Debian

Open source Software & Developed by the users, Free OS.

04

Others

Ubuntu, Linux Mint, CentOS, openSUSE / SUSE Linux Enterprise…

Red Hat Enterprise Linux

Red Hat Enterprise Linux supports and powers software and technologies for automation, cloud, containers, middleware, storage, application development, micro services, virtualization, management, and more.

Fedora

Fedora creates an innovative, free, and open source platform for hardware, clouds, and containers that enables software developers and community members to build tailored solutions for their users.

Debian

Advantages

- Upgradability - A **Debian** GNU system is upgraded to a new minor sub release or to a new major release by using one out of many methods. ...
- Availability.
- Integration.
- Open Source.
- High Quality.
- Pre-Configuration.
- Bug Tracking System.
- Tested.

Popular Linux Distros

- Android
- Arch Linux
- Centos
- Debian
- Elementary OS
- Fedora
- Gentoo Linux
- Kali Linux
- Linux Mint
- Manjaro Linux
- MX Linux
- Puppy Linux
- Slackware
- Solus
- Ubuntu and all its versions (Like - Gnome, Kubuntu, Ubuntu mate, Xubuntu, and Lubuntu—just to name a few)
- Zorin OS

Linux Features

Following are some of the important features of Linux Operating System.

- **Portable**
- **Open Source**
- **Multi-User**
- **Multiprogramming**
- **Hierarchical File System**
- **Shell**
- **Security**

Myths

The great Myths about Linux !!

Ubuntu vs Kali Linux

Ubuntu

Kali Linux

Ubuntu Server vs Ubuntu Desktop

Ubuntu Server

Ubuntu Desktop

- Graphical User Interface
- Applications
- Installation Process
- Similarity
- Kernel
- Supports

Different Shells in Linux

Bash vs C Shell vs Korn Shell

Shell Analysis

1

Bash

It has been used as the default login shell for most Linux distributions. A version is also available for Windows 10 via the Windows Subsystem for Linux.

2

C Shell

C shell can also read commands from a file, called a script..

Operating System – Unix, Linux, MacOS.

3

Korn Shell

Subcategory of Bourne Shell.

Command line editing, capable to array group data and call it by a name.

4

Default Prompt

Bash – **$**

C Shell – **%**

korn Shell - Custom

Alternative Resources

LINUX Shell

- Linux Shell Commands → https://docs.cs.cf.ac.uk/notes/linux-shell-commands/
- Useful Linux Bash Commands → http://staff.ltam.lu/feljc/software/Bash_commands.pdf
- C Shell → https://www.oakton.edu/user/2/rjtaylor/cis218/Slides/C%20Shell.pdf
- Korn Shell Cheat Sheet → https://www.qenesis.com/training/shell_programming/kshCheatsheet.pdf

Installation Process of Kali Linux

02

Installation Criterias

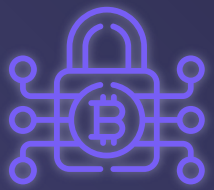
- We can use Vmware
- We can use Bootable Pendrive
- We can use CD/ DVD

Let's enjoy the Tutorial

Follow us on YouTube –

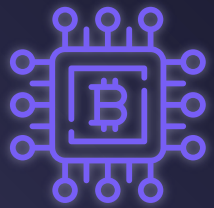
https://www.youtube.com/c/TheTechCherBD

Resources



VMware

https://www.virtualbox.org/wiki/Downloads



Installation File

https://www.kali.org/get-kali/#kali-bare-metal

03

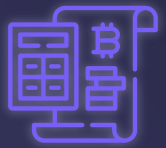
Getting Started with Linux

- Basic Linux Commands
  Working with Files & Directories

Linux Commands

Characters

Special Characters



Terminal Commands

Navigating the Linux File System

Commands

Working with Files & Directories

Alternative Resources

Recommending

- **Basic LINUX Commands – BBD**
  https://drive.google.com/file/d/1cp85ID9vYcwlXv1FfMsjcpA8Uk_8YhFN/view?usp=sharing [Password - https://t.me/BengalBlackDiamond]

- **Linux Commands Cheat Sheet**
  https://drive.google.com/file/d/1ECZ2FSlk26NujlWQs3eudbhQcl5rCEHB/view?usp=sharing

- **লিনাক্স এর নাড়িভূড়ি**
  https://drive.google.com/file/d/1XSYCUE3jCM9jzu2pyBiroA7xPYCl7abm/view?usp=sharing

One Trick — Thousands of Solutions

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1st

Community Support

Solution ??

2nd

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Ethical Hacking –
বাংলায় ফ্রিতে শিখি

Email

bytecapsuleltd@gmail.com

Contact us

Telegram Channel - https://t.me/BengalBlackDiamond
Facebook Page - https://www.facebook.com/BengalBlackDiamond
Facebook Group - https://www.facebook.com/groups/702528427083756
Email - bytecapsuleltd@gmail.com

Thank you!

Do you have any questions?

bytecapsuleltd@gmail.com
Telegram - https://t.me/BengalBlackDiamond
bytecapsule.com