Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

Linux Essentials workshops

M. Afkani

Kharazmi University of Tehran

afkani.ir

December 7, 2018

Overview

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

1 What Is Linux?
- History
- linus torvalds
- Distribution

2 Command Line
- $ echo

3 Second Section

What is Linux?

Just like Windows XP, Windows 7, Windows 10, and Mac OS X, Linux is an operating system. An operating system is software that manages all of the hardware resources associated with your desktop or laptop. To put it simply the operating system manages the communication between your software and your hardware. Without the operating system (often referred to as the OS), the software wouldnt function.

History

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

- Bell Laboratories Computer Sciences Research Center
- Unix
- Open-Source Experiments
- Free Software Foundation (FSF)
- GNU/Linux

linus torvalds

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

Linus Benedict Torvalds (born December 28, 1969) is a FinnishAmerican software engineer who is the creator, and historically, the principal developer of the Linux kernel, which became the kernel for many Linux distributions and operating systems such as Android and Chrome OS. He also created the distributed version control system Git and the diving logging and planning software Subsurface. He was honored, along with Shinya Yamanaka, with the 2012 Millennium Technology Prize by the Technology Academy Finland "in recognition of his creation of a new open source operating system for computers leading to the widely used Linux kernel". He is also the recipient of the 2014 IEEE Computer Society Computer Pioneer Award and the 2018 IEEE Masaru Ibuka Consumer Electronics Award.

Distribution

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

A Linux distribution (often abbreviated as distro) is an operating system made from a software collection, which is based upon the Linux kernel and, often, a package management system. Linux users usually obtain their operating system by downloading one of the Linux distributions, which are available for a wide variety of systems ranging from embedded devices (for example, OpenWrt) and personal computers (for example, Linux Mint) to powerful supercomputers (for example, Rocks Cluster Distribution).

- RedHat
- Debian
- Arch Linux
- openSUSE
- Ubuntu
- ...

Command Line

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

- Bash

As any other thing Linux, you can choose your shell too (by shell I mean the command line interface). Bash in the most common one.

$ echo

Linux essentials

M. Afkani

What Is Linux?
History
linus torvalds
Distribution

Command Line
$ echo

Second Section

$ echo Hello

$ echo Hello #Comment

$ echo -e "Hello \n World"

Escape sequence Function	
\a	Alert (bell)
\b	Backspace
\f	Form feed
\n	New line
\r	Carriage return
\t	Horizontal tab

$ echo

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

metacharacters and Control operators
Also there are characters with special meaning. You need to
escape then if you need them in your commands:
| & ; ( ) < > ∗
There is also control operators. They also have special
meanings:
|| && & ; ;; | ( )
The most important ones are ; (do one by one), && (logical
and) and || (logical or).

$ echo

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

$ echo line 1;echo line 2; echo line 3

$ echo line 1&&echo line 2&&echo line 3

$ echo line 1||echo line 2; echo line 3

Bullet Points

- Lorem ipsum dolor sit amet, consectetur adipiscing elit
- Aliquam blandit faucibus nisi, sit amet dapibus enim tempus eu
- Nulla commodo, erat quis gravida posuere, elit lacus lobortis est, quis porttitor odio mauris at libero
- Nam cursus est eget velit posuere pellentesque
- Vestibulum faucibus velit a augue condimentum quis convallis nulla gravida

Blocks of Highlighted Text

Block 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Block 2

Pellentesque sed tellus purus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Vestibulum quis magna at risus dictum tempor eu vitae velit.

Block 3

Suspendisse tincidunt sagittis gravida. Curabitur condimentum, enim sed venenatis rutrum, ipsum neque consectetur orci, sed blandit justo nisi ac lacus.

Multiple Columns

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

Heading

1. Statement
2. Explanation
3. Example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer lectus nisl, ultricies in feugiat rutrum, porttitor sit amet augue. Aliquam ut tortor mauris. Sed volutpat ante purus, quis accumsan dolor.

Table

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table: Table caption

Theorem

Theorem (Mass–energy equivalence)

$E = mc^2$

Verbatim

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

Example (Theorem Slide Code)

```
\begin{frame}
\frametitle{Theorem}
\begin{theorem}[Mass--energy equivalence]
$E = mc^2$
\end{theorem}
\end{frame}
```

Figure

Uncomment the code on this slide to include your own image
from the same directory as the template .TeX file.

Citation

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

An example of the \cite command to cite within the presentation:

This statement requires citation [**?**].

References

Linux
essentials

M. Afkani

What Is
Linux?
History
linus torvalds
Distribution

Command
Line
$ echo

Second
Section

John Smith (2012)

Title of the publication

Journal Name 12(3), 45 − 678.

The End