Unix Fundamentals – Introduction

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1. **Free Libre Open Source Software**

   (a) Read the 2-clause BSD license: https://www.freebsd.org/copyright/freebsd-license.html.

   (b) Note the BSD-licensed code can be included in proprietary software or its next releases can be licensed as proprietary software.

   (c) Read the GNU GPL3 license preamble https://www.gnu.org/licenses/gpl.html.

   (d) Take a look at the GNU Free System Distribution Guidelines: https://www.gnu.org/distros/free-system-distribution-guidelines.html.

   (e) Visit the following web sites:

   - FLOSS and FOSS explained by Richard Stallman:
     https://www.gnu.org/philosophy/floss-and-foss.en.html
   - Software Freedom by Debian:
     https://www.debian.org/intro/free
   - Free Software Foundation home page:
     https://fsf.org
   - RedHat Enterprise Linux and CentOS projects:
     https://www.redhat.com/en/technologies/linux-platforms/enterprise-linux
     https://www.centos.org/about
     Note that RHEL is NOT a free of charge system and CentOS project doesn't provide its own documentation (read RHEL's one instead).
   - Snort NIDS (Network Intruder Detection System) homepage:
     https://snort.org
     Note that Snort is an open source engine, however the latest rules for it are NOT provided free of charge.

   (f) Check licenses of utilities that will be used throughout this course; open a terminal emulator window and execute the following commands:

   - `bash --version`
   - `whoami --version`
   - `date --version`
   - `ls --version`

2. **OS, Unix, POSIX, SUS**

   (a) Visit POSIX and SUS home pages:
   https://standards.ieee.org/standard/1003_1-2017.html
   http://www.unix.org/ (wait a few seconds for redirection)

   (b) Read about FreeBSD and POSIX/SUS compatibility:
   https://wiki.freebsd.org/FreeBSD_and_Standards

3. **Unix, Unix-based and Unix-like Systems**

(a) Visit homepages of main BSD open software operating systems:
https://www.freebsd.org (general purpose)
https://www.netbsd.org (portability)
https://www.openbsd.org (security)
as well as some main FreeBSD forks, for example:
https://www.dragonflybsd.org (virtualization)
https://www.trueos.org (desktop)
https://www.midnightbsd.org (desktop)
http://www.ghostbsd.org (user friendliness)

(b) Visit the GNU project webpage:
https://www.gnu.org
What's the name of the GNU kernel?

(c) Some popular main Linux/GNU distros:
https://www.archlinux.org
https://www.debian.org
https://www.gentoo.org
https://www.opensuse.org
https://www.slackware.com

(d) Some BSD/GNU hybrid systems:
https://www.debian.org/ports/hurd/index.en.html (Debian GNU/Hurd)
https://www.debian.org/ports/kfreebsd-gnu/index.en.html (Debian GNU/kFreeBSD)
https://www.hyperbola.info (GNU + BSD kernel)

(e) Some other FLOSS systems:
https://www.openindiana.org
https://www.reactos.org

(f) Which popular operating system is based on BSD-derived system called *Darwin*?

(g) Try to find some information on commercial Unices mentioned on the presentation.