Open Source Softwares

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What is Open Source Software?

- **Open Source software is software licensed under an agreement that conforms to the Open Source Definition**
  - Access to Source Code
  - Freedom to Redistribute
  - Freedom to Modify
  - Non-Discriminatory Licensing (licensee/product)
    - The license must not discriminate against any person or group of persons
  - Integrity of Authorship
    - The author's right is the right not to have the work subjected to derogatory treatment. (COPYRIGHT ACT 1968 -SECT 195AI)
    - The license may require derived works to carry a different name or version number from the original software.
  - Redistribution in accordance with the Open Source License Agreement
    - The license must explicitly permit distribution of software built from modified source code.

What is Open Source Software?

- **Any developer/licensor can draft an agreement that conforms to the OSD, though most licensors use existing agreements**
  - GNU Public License ("GPL")
  - Lesser/Library GNU Public License ("LGPL")
  - Mozilla Public License
  - Berkeley Software Distribution license ("BSD")
  - Apache Software License
  - See complete list at www.opensource.org/licenses

Open Source Licenses

- Copyleft vs. copyright
  - Copyright: prohibit others from reproducing, adapting, or distributing copies of the author's work
  - Copyleft: give every person who receives a copy of a work permission to reproduce, adapt or distribute the work as long as any resulting copies or adaptations are also bound by the same copyleft licensing scheme
- Two widely used open source licenses have "Copyleft" Provisions
  - GNU Public License ("GPL")
  - Lesser GNU Public License or Library GNU Public License ("LGPL")
- Most other licenses do not have Copyleft terms

Proprietary vs. Open Source Licensing Models

Proprietary Model	Open Source Model
Licensor distributes object code only; source code is kept a trade secret	Licensor distributes source code
Modifications are prohibited	Modifications are permitted
All upgrades, support and development are done by licensor	Licensee may do its own development and support or hire any third party to do it
Fees are for the software license, maintenance, and upgrades	Fees, if any, are for integration, packaging, support, and consulting
Sublicensing is prohibited, or is a very limited right	Sublicensing is permitted; licensee may have to distribute the source code to program and modifications

Key GNU Public License ("GPL") Terms

- **License Rights Granted under the GPL**
    - Licensee may run the Program
    - Licensee may copy and distribute verbatim copies of the Program's source code
    - Licensee may create "derivative works" of the Program
    - Licensee may distribute such derivative works

Key GNU Public License ("GPL") Terms

- **If a licensee of a Program distributes that Program, or any "work based on the Program," such licensee must:**
  - also distribute the source code for the Program and for the work based on the Program, and
  - cause such works to be licensed at no charge under the terms of the GPL

Key Lesser GPL("LGPL") Terms

- Very similar to the GPL Intent is to promote use of certain Libraries in conjunction with "non-free" programs
- Contains exception for linking "works that use the library" to proprietary programs, which mitigates some Copyleft concerns

Key Lesser GPL("LGPL") Terms

- **The LGPL has the same Copyleft obligations as the GPL, except:**
  - A work that uses only "numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines . . . or less)" is not subject to Copyleft obligations
  - a work that contains no derivative of any portion of the [GPL's] Library, but is designed to work with the Library by being compiled or linked with the Program, is not subject to Copyleft obligations