# Open Source SW Development
# (오픈소스SW 개발)
# CSE22300

# About the Course

- **[CSE22300] Open Source SW Development**

- **Instructor**
  - **Seongwook Jin, Dept. Of Computer Engineering and KIWIPLUS**

- **Textbook**
  - **Slides**
  - **Reference “Cathedral and Bazaar” by Eric Raymond**

- **Evaluation**
  - **Final Exam. 25%**
  - **Mid Exam. 25%**
  - **Experiments 25%**
  - **Term Project 15%**
  - **Attendance 10%**

# About the Course

- **Term Project**
  - **Free project based on Node.js Express**
  - **Solo project**

- **Course Webpage**
  - **KLAS**

# About the Course

- **Course Schedule**
  - **9/1 Orientation**
  - **9/8 Introduction to Open Source SW**
  - **9/15 GIT**
  - **9/22 GIT**
  - **9/29 GIT**
  - **10/13 JavaScript**
  - **10/20 JavaScript**
  - **10/27 Mid Term Exam.**
  - **11/3 Node.js**
  - **11/10 Node.js**
  - **11/17 Linux**
  - **11/24 Linux**
  - **12/1 Cloud Computing, AWS**
  - **12/8 Term Project Presentation**
  - **12/15 Final Term Exam.**

# Open Source

- **Proprietary Software**
  - **Written by closed group**
  - **Released in binary form**
  - **Restrictive license**

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# Open Source

- **Open Source Software**
  - **Source code is available to the public**
  - **Anyone to copy, modify and redistribute the source code**
  - **GNU/Linux, Eclipse, Apache, Mozilar**
- **Pros**
  - **Lower cost**
  - **Flexibility**
  - **Reliability and quality**
  - **No dependency**
- **Cons**
  - **Lack of personalized support**
  - **Restricted choice**
  - **Speed of change**
  - **No Warranty**

# GIT

- **Repository (aka “repo”): a location storing a copy of all files.**
  - **you don't edit files directly in the repo;**
  - **you edit a local working copy or “working tree”**
  - **then you commit your edited files into the repo**

- **There may be only one repository that all users share (CVS, Subversion)**
- **Or each user could also have their own copy of the repository (Git, Mercurial)**

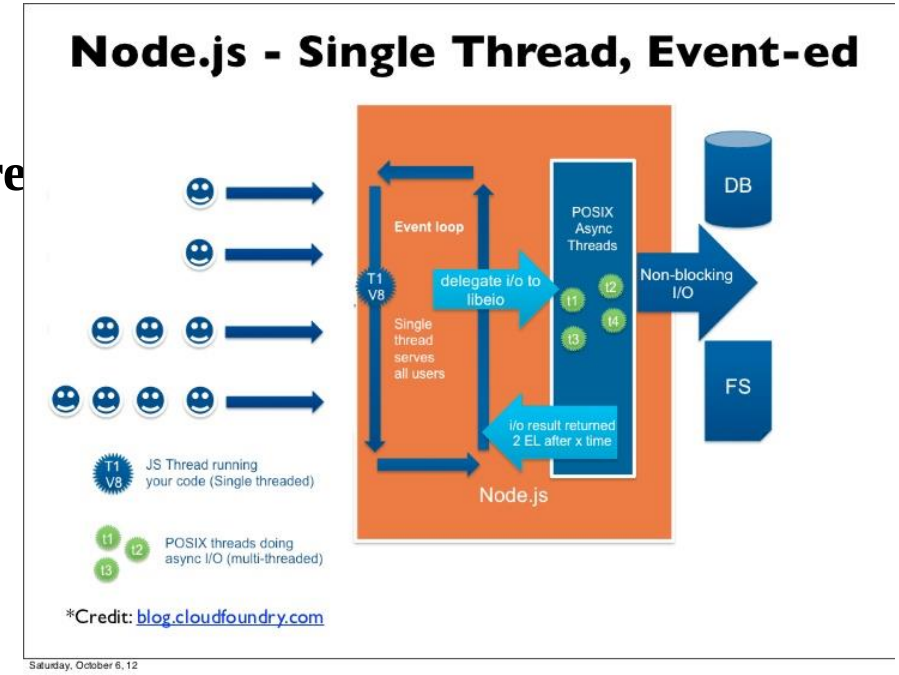
- **Files in your working directory must be added to the repo in order to be tracked.**

# JavaScript

- **Dynamic computer programming language**
  - **Lightweight and most commonly used as a part of web pages**
  - **Allows client-side script to interact with the user and make dynamic pages.**
  - **Interpreted programming language with object-oriented capabilities.**

# Node.js

- Uses Googles V8 JavaScript engine as an interpreter
  - Very fast
- Not a JavaScript framework
  - A Runtime Environment
- Event-driven architecture
  - All APIs of Node.js library are
- Non-blocking I/O
- Single thread



# Linux

- **It’s a free operating system!**
- **Open Source (modifiability, extensibility, …)**
- **Works on several platforms**
- **Robustness (after several revisions, and several people working on it)**
- **Widespread Usage**
- **Compatibility with several other platforms.**