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## Practical :- 1.

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### Python.

#### \* IDEA.

Guido van Rossum and Python's design philosophy could emphasize the code readability, and the syntax could allow programmers to express their concepts in fewer lines of code than what was possible in other languages like C++ or Java.

#### \* What problem does it solve.

Guido started developing an ABC-like language that could talk to the OS and would be suitable for quickly developing OS utilities for Amoeba. Python programming language is easier than C++ & Java.

#### \* Licensing Model

Python Software and documentation are licensed under the PSF License Agreement. Starting with Python 3.8.6, examples, recipes and other code in the documentation are dual licensed under the PSF License Agreement and the Zero-Clause BSD license. Some software incorporated into python is under different licenses.



\* Intent behind making it open source

Python open source and that Python is the widely used robust programming language. Python is very easy to learn and implement, provides easy usage of code lines. It can be used to develop wide varieties of applications.

\* Popularity.

python is one of the world's most popular programming language. In fact it's more so than ever. Python climbed from third place to tie for second in the latest ranking of programming language popularity published by the analyst firm RedMonk.

\* Impact

Python was pointed out to be 2019's 8<sup>th</sup> fastest growing programming language with a growth rate of 151% year on year. Now, these packages used in machine learning helps AI-engineers detect patterns from a large dataset. Python's popularity.

## PRACTICAL NO 2

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## AUDACITY.

### 1. History of license.

→ Audacity was started by Dominic Mazzoni and Roger Dannenberg in the fall of 1999 as part of a Research project at Carnegie Mellon University. Audacity was initially released as an open source audio editor in May 2000. We got to version Audacity 1.0 of June 2002.

### 2. IDEA.

→ Audacity is a free, easy to use, multi-track audio editor and recorder for windows, macOS, GNU/Linux and other operating systems. The interface is translated into many languages. You can use Audacity to Record live audio.

### 3. What problems does it solve.

→ Audacity is a free software of All in one Software in Audio editing software. You can use one software for audio editing. Neither than many softwares are there but Not like than Audacity.

### 4. Detailed licensing model.

→ Audacity is free software. developed by a group of volunteers and distributed under the GNU General Public License (GPL). Free software is not just free of cost (like "free beer") ... Programs like Audacity are also called open source software, because their source code is available for anyone to study or use.



5. Any popular news associated with this license.  
→ GPL Initiative Grows over 40%; More than 60 Companies have joined the Campaign for Greater Predictability in Open Source Licensing.

#### 6. Popularity.

→ Audacity was started in the fall of 1999 by Dominic Mazzoni and Roger Dannenberg at Carnegie Mellon University and was released on May 28, 2000 as version 0.8. As of October 24 2020, it is the most popular download from FoSSHub, with over one hundred million downloads since March 2015.

#### 7. Impact.

→ Audacity is shipped with many effects that you can use to modify your audio. Real-time preview of LADSPA, LV2, VST and Audio Unit (macOS) effects. Plug-in Manager handles plug-in installation and addition/removal of effects and generators from the menus. Generate tones, silence, noise, instruments or rhythm track.



## Casestudy On Github.

The GitHub Service was developed by Chris Wanstrath, P.J. Hyett, Tom Preston-Werner and Scott Chacon using Ruby on Rails, and started in February 2008. The company, GitHub, Inc. has existed since 2007 and is located in San Francisco.

On February 24, 2009, GitHub announced that within the first year of being online, GitHub had accumulated over 46,000 public repositories, 17,000 of which were formed in the previous month. At that time, about 6,200 repositories had been forked at least once and 4,600 had been merged.

That same year, the site was harnessed by over 100,000 users, according to GitHub, and had grown to host 90,000 unique public repositories, 12,000 having been forked at least once, for a total of 135,000 repositories.

In 2010, GitHub was hosting 1 million repositories. A year later, this number doubled. ReadWriteWeb reported that GitHub had surpassed SourceForge and Google Code in total number of commits for the period of January to May 2011.

On January 16, 2013, GitHub passed the 3 million users mark and was then hosting more than 5 million repositories. By the end of the year, the number of repositories were twice as much, reaching 10 million repositories.

In 2012, GitHub raised \$100 million in funding from Andreessen Horowitz with \$750 million valuation. Peter Levine, general partner at Andreessen Horowitz, stated that GitHub had been growing revenue at 300% annually since 2008 "profitably nearly the entire way" in the same year Microsoft became a significant user of GitHub, using it to host open-source project and development tools such as .NET Core, MSBuild, Windows Calculator etc.

In 2015, GitHub opened an office in Japan that is its first office outside of the U.S. Five years later, GitHub launched in India under the name GitHub India Private Limited.



In 2016, GitHub was Ranked No. 14 on the Forbes cloud 100 list.

On Feb 28, 2018, GitHub fell victim to the second largest distributed denial-of-service (DDoS) attack in history, with incoming traffic reaching of about 1.35 terabits per second.

On June 19, 2018, GitHub expanded its GitHub Education by offering free education bundles to all schools.

In early July 2020, the GitHub Archive Program was established to archive its open source code in perpetuity.

GitHub Archive Program: the journey of the world's open source code to the Arctic.