LAB 1

Free and Open-Source Software

Fullname: Tran Dang Khoa

Student ID: B2014926

- Note: Screenshots need to be clear and good-looking; submissions must be in PDF format.

1. Using OSS Methods to Produce Better Products

Enumerate a few reasons how adopting OSS methods can improve and accelerate a product's success.

- Security
- Quality
- Customizability
- Reliability
- Freedom and Flexibility
- User and Technical Support.

2. What OSS Products Do You Use?

- Choose 5 pieces of proprietary software that you use regularly, and find a FOSS equivalent for each of them. What license (like GPL, MIT, a mix of licenses, etc.) do the FOSS products fall into?

1. Microsoft Office Software: FOSS Equivalent is : LibreOffice is a GPL license type
2. Adobe Photoshop software: FOSS Equivalent: GIMP (GNU Image Manipulation Program) under GPL license
3. Adobe Illustrator software: FOSS equivalent: Inkscape of GPL type
4. Adobe Premiere Pro (Video Editing) software: FOSS Equivalent: DaVinci Resolve (free version) or Shotcut paper
5. AutoCAD (2D and 3D Design) software: FOSS Equivalent: FreeCAD is LGPL v2+ license type

- Write a short comparison (about the UI, the documentation, the bugginess, etc.) for each pair of proprietary and FOSS software

1. Microsoft Office and LibreOffice :
   - User interface: Microsoft Office: Has an intuitive and professional interface with many customizations. LibreOffice: Has a simple interface and closely resembles the classic interface of Microsoft Office. This interface can be customized.
   - Cloud support: Microsoft Office: Includes integration with Microsoft cloud services like OneDrive and SharePoint. LibreOffice: It is necessary to use a private cloud storage service (e.g. Google Drive or Dropbox) to work in the cloud.

2. Adobe Photoshop and GIMP:

- Compatible Format: Adobe Photoshop: Supports a wide range of popular image formats, including PSD (Photoshop's native format) and many others. GIMP: Supports many image formats, including popular formats like JPEG, PNG, GIF, and TIFF.
- Operating System:Adobe Photoshop: There are versions for both Windows and macOS. The online version of Photoshop is also available for a wide range of web browsers. GIMP: Supports multiple operating systems, including Windows, macOS, and Linux.

3. Adobe Illustrator and Inkscape:
   - User Interface:Adobe Illustrator: Has a professional user interface and is optimized for high performance and customization. Inkscape: Has a simple interface and is almost identical to the classic look of Illustrator, but customizable.
   - Operating System: Adobe Illustrator: There are dedicated versions for Windows and macOS. The online version of Illustrator is also available for some web browsers. Inkscape: Supports multiple operating systems, including Windows, macOS, and Linux.
4. Adobe Premiere Pro and DaVinci Resolve:
   - User Interface:Adobe Premiere Pro: Has a professional user interface and is optimized for high performance and customization. DaVinci Resolve: Also has a professional interface with flexible customization, but may take some time to adapt.
   - OS compatibility:Adobe Premiere Pro: There is a version for both Windows and macOS. DaVinci Resolve: There are versions for both Windows, macOS, and Linux.
5. AutoCAD (2D and 3D Design) and FreeCAD:
   - User Interface:AutoCAD: Has a professional user interface and is optimized for high performance and customization. FreeCAD: Has a simple interface and closely resembles the classic look of CAD applications, but without high customization features.
   - Operating System: AutoCAD: There is a version for both Windows and macOS, and a web-based version. FreeCAD: Supports multiple operating systems, including Windows, macOS, and Linux.

3. Contribute to OSS projects

Find an **active** OSS project hosted on GitHub that you are interested in, and spend some time figuring out some important information about the project:

- Who are the project leaders: Yshong93
- When did the project start: Nov 29, 2015
- What license does the project fall into? MIT
- Answer the following questions using README file
  + What does this project do: CloudBread is free OSS project for mobile game and mobile app server engine powered by cloud server.
  + Why is this project useful?
    CloudBread support features:
    - Stateless RESTful API based on HTTP game server engine + real-time peer to peer communication module.
    - Built on fully managed Microsoft cloud servies(PaaS) and officail SDK.

    - Most of game service modules include membership, Item management, leader, broad, notice, Coupon & event management, Adim website, IAP, push notification and etc.
    - Support 100+ game business logic and adim website by defaul.
  + How do I get started: go to the link and installing guide to get started.
  + Where can I get more help, if I need it?

  CloudBread is open source and you can coutribute to make it better. Please, join the Facebook group and if you want to code coutribute on code, Pull Request is welcomed.
- Answer the following questions using the project contribution guidelines
  + How to file a bug report

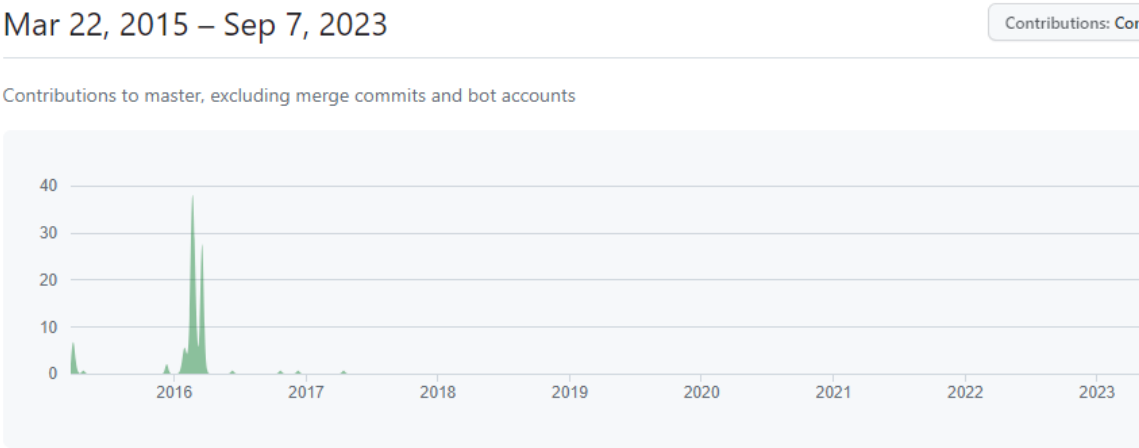
    There is a script in the repo to setup a docker container with the Visual Studio Debugger (vsdbg). After running the script in a container, you can connect the VSCode debugger to a process running in the container.
  + How to suggest a new feature?

    Besides using Visual Studio in Windows, you can build by running the build script: scripts/linux/buildBranch.sh
  + How to set up your environment and run tests

  CloudBread can selectively use real time Socket server to API server(Core server). Communication between cloudBread and game clinet is as below. Real time communication part descript later.

    - HTTP protocol
    - Restful API
    - JSON formal

  + The types of contributions the project is looking for
  + The roadmap or vision of the project



4. Selecting a License

The [OSSWatch] tool attempts to help its users understand their own preferences in relation to free and open source software licences. There are 7 choices that you need to make.

- What question do you need to answer when making a choice?
- What license(s) match ALL below requirements (other choices are “I don’t care”)
- Permissive, exclusively patent grants, specify enhanced attribution

This is your selection:

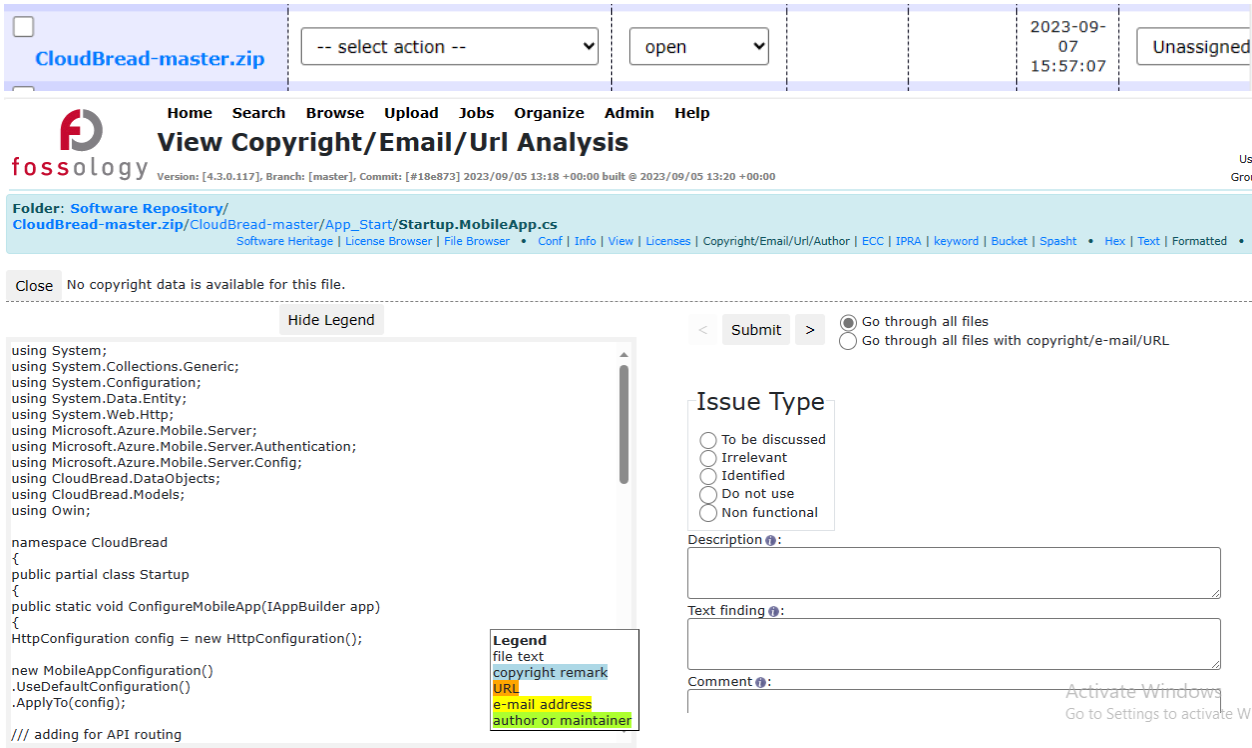
1. Popular and widely used: Don't care
2. Licence type: Permissive
3. Jurisdiction: Don't care
4.a Grants patent rights: Yes
4.b Patent retaliation clause: Don't care
5. Specifies enhanced attribution: Yes
6. Addresses privacy loophole: Don't care
7. Includes 'no promotion' feature: Don't care

Take screenshots to show that you finish this exercise

5. Experimenting with FOSSology

The FOSSology project offers easy to understand options for learning the basics of how to use the tools. The easiest way is to use the project's online testing facility. To do this:

1. Point your browser to https://fossology.osuosl.org/repo/
2. Login with username=fossy and password=fossy.
3. Download the source code of the project in **exercise 3**, then upload it to FOSSology.
4. After the source code is analyzed, In the select action box, click onCopyright/Email/Urlin the drop down menu. You see the copyright, license and url information highlighted in appropriate colors.
5. Try clicking on some of the other fields in the top ribbon banner to see more useful information.



Take screenshots to show that you finish this exercise

---END---