

Deliverable 1

Project Description

My project consists in the creation of a Python based video game inside a VirtualMachine. Ubuntu will be installed on the Virtual Machine, and then, Python will be installed in Ubuntu. A simple 2D video game will be develop with Python coding on the Ubuntu OS to demonstrate that Linux can be used to develop video games effectively.

Project hardware and software requirements

- A computer that can run a Virtual Machine
- Virtual Machine
- Python

What is Linux?

Linux is a Unix-like free Operating System that is in constant development by the community of users. Linux is highly customizable, so this OS can satisfy the specific needs of different users. Moreover, this OS is not only for PC but for every almost every device that can run an Operating System.

Short history of Linux

- Linux is developed around 1975.
- Linus Torvalds developed Linux further in 1991.
- 2.0 Linux kernel is released in 1996.
- A group of programmers worked on a graphical environment in 1999.

Linux distribution

- Slackware: It is the longest Linux distribution that is still being updated. Its main characteristic is that is very stable.
- Debian: It is a all-volunteer organization dedicated to developing free software. It started in 1993 to create an understandable Linux distribution and is known as the grandfather of distributions.
- Ubuntu:It is one of the most common Linux distribution out there. This distribution is freely available for everybody. It is a Debian based OS that is recommended as a distribution for beginners
- Kali Linux: It is a Linux distribution designed for forensic work and penetration testing.
- Red Hat Enterprise Linux: It is a commercial distribution of Linux for the business market.

Open Source VS Closed Source

An Open Source software is distributed free or for a fee, so the source code is available for the users. On the other hand, a Closed Source software is not distributed with the source code, so the source code is not available for the users.

Advantages and Disadvantages of Open Source

Advantages	Disadvantages
Cost Effective, reliability, flexibility, scalability, licensing, error free	Not secure, not user friendly, lack of compatibility, maintenance problems

Advantages and Disadvantages of Closed Source

As expected, the advantage of Closed Source are the disadvantages of Open Source

Advantages	Disadvantages
Not secure, not user friendly, lack of compatibility, maintenance problems	Cost Effective, reliability, flexibility, scalability, licensing, error free

The Free software movement

It is a community of users that believe that computer users deserve free software and liberty.

The 4 freedoms

- The freedom to run the program.
- The freedom to study how the program works.
- The freedom to distribute copies of the software.
- The freedom to improve the program, and release the improvements to the users.

Sources

- Slackware. [Reference page](#).
- Kali. Kali Linux Features. [Reference page](#).
- RedHat. Red Hat Enterprise Linux. [Reference page](#).
- Hitechwhizz. 6 Advantages and Disadvantages of Open Source Software | Drawbacks & Benefits of Open Source Software. [Reference page](#).
- Hitechwahizz. 6 Advantages and Disadvantages of Closed Source Software | Drawbacks & Benefits of Closed Source Software. [Reference page](#).
- W. Russ Payne. Free Software Philosophy. [Reference page](#).