Lesson: Free and Open Source Software (FOSS)

Operating Systems

Windows – Most popular OS by Microsoft. Versions: XP, 7, 8, 10, 11.
Linux – Free and open-source. Examples: Ubuntu, Fedora, Mint.
macOS – Apple's OS known for design and stability.

What is Software?

Software = set of programs that make the computer work.
System Software: helps run the computer (Windows, Linux).
Application Software: used for tasks (Word, Photoshop).

Free and Open Source Software (FOSS)

Free = freedom, not price.
Open Source = source code is public.
Values: Collaboration, Transparency, Quality.

What is a Backdoor?

A hidden way to access software or systems without permission — a security risk.

The Four Essential Freedoms

1. Run the program for any purpose.
2. Study how it works and modify it.
3. Redistribute copies.
4. Improve it and share improvements.

Short History

1983: GNU Project started by Richard Stallman. Later joined by Linux kernel.

Why Animals as Logos?

They symbolize freedom, speed, or community (e.g., Linux penguin ■, Firefox ■).

"Free" ≠ "Gratis"

Free means freedom, not price. You can charge for open-source software if you respect its license.

Educational and Social Impact

Encourages sharing and teamwork.
Helps students access free tools like LibreOffice, Moodle, Khan Academy.
Reduces software cost and dependency.

Cookies

Definition: small data stored by websites to remember users.
Transparency: sites must inform users.
Use: track logins, preferences, ads.

Licenses

GPL – Commercial use ■ Modify ■ Example: Linux
MIT – Commercial use ■ Modify ■ Example: React
Apache – Commercial use ■ Modify ■ Example: Android
BSD – Commercial use ■ Modify ■ Example: FreeBSD
Creative Commons – varies | Example: Wikipedia

Open Source vs Closed Source

Open Source: Visible code, free to modify (Linux, VLC).
Closed Source: Hidden code (Windows, Photoshop).

Discussion: Yassir vs Ouedkniss

Yassir = closed-source app. Ouedkniss uses some open tools. Which model is better for Algeria's tech future?

What is a Community?

Group of users and developers who help improve software (Linux, Mozilla).