Sprint 1 – IPFS and API integration

1. IPFS node setup

```
Windows PowerShell
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Instale la versión más reciente de PowerShell para obtener nuevas características y mejoras. https://aka.ms/PSWindows

PS C:\Users\HP1> ipfs daemon
Initializing daemon...
Kubo version: 0.38.1
Repo version: 18
System version: amd64/windows
Golang version: go1.25.2
PeerID: 12D3KooWAoSHJ1jB11Zwarspgw5NuyVk8gdQ3MffZopMCG6z6qQ4
Swarm listening on 127.0.0.1:4001 (TCP+UDP)
Swarm listening on 169.254.15.156:4001 (TCP+UDP)
Swarm listening on 169.254.162.218:4001 (TCP+UDP)
Swarm listening on 172.24.0.1:4001 (TCP+UDP)
Swarm listening on 192.168.1.45:4001 (TCP+UDP)
Swarm listening on 192.168.56.1:4001 (TCP+UDP)
Swarm listening on [::1]:4001 (TCP+UDP)
Run 'ipfs id' to inspect announced and discovered multiaddrs of this node.
RPC API server listening on /ip4/127.0.0.1/tcp/5001
WebUI: http://127.0.0.1:5001/webui
Gateway server listening on /ip4/127.0.0.1/tcp/8081
Daemon is ready
```

2. Leader API Running

3. Leader adding file

```
PS C:\Users\HP1> curl.exe -X POST -F "file=@C:/Users/HP1/Desktop/Bienvenido.md" http://localhost:3000/upload
{"mensaje":"Archivo añadido a IPFS correctamente ","cid":"QmY37k6A45Xc7p3JStbn8yyzThYbzxESnwdcXxPmrHicVB"}
PS C:\Users\HP1>
```

4. Client accessing file

```
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PS C:\Users\di17j> cd C:\Users\di17j\OneDrive\Escritorio\kubo
PS C:\Users\di17j\OneDrive\Escritorio\kubo> .\ipfs cat QmY37k6A45Xc7p3JStbn8yyzThYbzxESnwdcXxPmrHicVB
a) The ESXi is the hypervisor that virtualizes physical hardware resources allowing VMs like Linux VM to run as an indepent system. Also, it isolates the VMs between them, which makes that crashes in one VM do
nt affect other VMs

b) AD stores information about users, computers, and policies in a domain, while Group Policy (GPO) uses this information to enforce security settings and configurations across domain-joined machines and users
. Therefore, Group Policy uses AD as the mechanism for distribution and targeting of its policies.

c) Docker containers share the host Linux VM's operating system kernel but run applications in isolated environments with their own file systems and dependencies.

d) Because it stores copies of the application’s static content on servers distributed around the world reducing latency and improving performance for users far from the origin server


a) ESXi is the hypervisor that virtualizes physical hardware resources, allowing virtual machines, such as Linux virtual machines, to function as independent systems. It also isolates virtual machines from eac
h other, preventing any failure of one virtual machine from affecting others.

b) AD stores information about users, computers, and policies in a domain, while Group Policy (GPO) uses this information to apply security settings to domain-joined computers and users. Therefore, Group Polic
y uses AD as a mechanism for distributing and targeting its policies.

c) Docker containers share the operating system kernel of the host Linux virtual machine, but run applications in isolated environments with their own file systems and dependencies.

d) Because it stores copies of the application's static content on servers distributed around the world, reducing latency and improving performance for users located far from the source server.
PS C:\Users\di17j\OneDrive\Escritorio\kubo>
```