**Exp 4. Using Git Repositories and FTP Tools for Remote File Storage and Access (Duration: 3 Sessions × 2 Hours Each)**

## **Tools Required:**

* **Git** (Installed on Ubuntu VM)
* **GitHub** (student accounts or one shared repo)
* **FileZilla** or WinSCP or cuteFTP
* **VS Code / Terminal**
* **Internet access**
* Optional: GitHub Desktop on host machine

**Prerequisites\* (Before Lab Sessions Begin):**

***(\* You can take an hour to get the prerequisites mentioned so students feel familiar with the process)***

* Students must have a GitHub account
* Ubuntu VM should have Git installed
* FileZilla (or WinSCP or cuteFTP) installed on host machine
* SSH access enabled to the VM

**Lab Session 1** (2 hours): Upload files to VM via FTP and initialize GIT Repo

* Transfer files to the VM using FTP, initialize the Git Repo and push to GitHub

**Deliverables**

* Screenshot of file upload using FileZilla
* Screenshot of GitHub repo with uploaded files

**Lab Session 2** (2 hours): Remote access and Git Synchronization

* Clone repo on host and VM, sync changes using GIT and then validate using FileZilla

**Deliverables**

* Screenshot of Git *push* from host
* Screenshot of Git *pull* on VM
* Screenshot of the file content via FileZilla

**Lab Session 3** (2 hours): Collaboration and FTP Security Configuration

* Simulate team collaboration ( students can work in pairs) using GitHub and configure FTP securely.

**Deliverables**

* Screenshot of commits from both partners
* Screenshot of secure FTP connection
* Screenshot of successful FileZilla login using updated port