Training Day14 Report:

02 July 2024

Keys Takeways:

**1. Explored FCS (File Control System)**

* **Objective**: To understand the basics of version control and explore functionalities of a file control system.
* **Activities**:
  + Learned the core concepts of version control such as commits, branches, and repositories.
  + Familiarized with common version control systems like Git.
  + Set up a local repository using Git and practiced basic commands like git init, git status, git add, git commit.

**2. Forked a Website Repository**

* **Objective**: To create a personal copy of a remote repository for independent development.
* **Activities**:
  + Visited a hosting service like GitHub.
  + Selected a repository to fork.
  + Used the "Fork" button on GitHub to create a copy of the repository under a personal account.
  + The forked repository was then available for modifications and personal contributions.

**3. Cloned the Repository**

* **Objective**: To make a local copy of the forked repository.
* **Activities**:
  + Used the command git clone <repository\_url> to clone the forked repository to a local machine.
  + Verified that the repository was successfully cloned by checking the directory structure and files.

**4. Pushed Changes to the Repository**

* **Objective**: To upload local changes to the remote repository.
* **Activities**:
  + Made modifications to the cloned repository files.
  + Used git add <file> to stage the changes.
  + Committed the changes with git commit -m "message".
  + Used git push to push the committed changes to the remote repository.

**5. Pulled Updates from the Repository**

* **Objective**: To fetch and merge changes from the remote repository.
* **Activities**:
  + Checked for updates in the remote repository using git fetch.
  + Merged the fetched changes into the local repository using git merge.
  + Alternatively, used git pull to fetch and merge updates in one step.

**6. Explored TOTP (Time-based One-Time Password)**

* **Objective**: To understand the working and implementation of TOTP for enhancing security.
* **Activities**:
  + Learned about the TOTP algorithm and its reliance on time and shared secret keys.
  + Explored popular TOTP apps like Google Authenticator, Authy, Microsoft Authenticator, LastPass Authenticator, and Duo Mobile.
  + Set up TOTP for an online account:
    - Enabled 2FA in the account’s security settings.
    - Scanned the provided QR code using a TOTP app to add the account.
    - Verified the setup by entering the generated TOTP code.
  + Practiced using the TOTP code for logging in, ensuring familiarity with entering the code within the validity period.

