Cloud Computing Tutorial: Transforming from Local to Cloud using GitHub

# Introduction: Why GitHub in Cloud Computing?

GitHub is more than just a code hosting platform. It acts as a cloud-based repository where developers can store, manage, and collaborate on their code from anywhere in the world. This makes it a fundamental tool in cloud computing environments, supporting version control, team workflows, DevOps, and CI/CD.

# Activity 1: Create a GitHub Account

Create your own GitHub accounts to establish the cloud presence.

Link: [How To Create GitHub Account | Make A New GitHub Account](https://www.youtube.com/watch?v=2faRmntcWwo)

Steps Summary:

1. Go to https://github.com

2. Click on Sign Up

3. Enter your email, username, password.

4. Choose your preferences and verify your email.

5. Set up your profile and you're done!

# Activity 2: Upload Your First Code Repository

Learn how to push your code from your local system to the cloud.

[How To Upload Code In GitHub | Push Code To GitHub](https://www.youtube.com/watch?v=Do0W4G5GCp0)

# Questions

1. How does GitHub differ from saving files on your local desktop?

GitHub: Cloud-based, accessible anywhere, tracks changes, supports collaboration, and backups.

Local Desktop: Limited to one device, manual version control, hard to share, risk of data loss.

2. In what ways can GitHub support cloud-based project work?

* Enables remote teamwork
* Tracks versions with Git
* Supports CI/CD and deployment
* Includes task management tools
* Controls access and permissions

3. What are the potential risks or challenges of moving code from local machines to GitHub (cloud)?

* Exposing sensitive data accidentally
* Merge conflicts and Git learning curve
* Access mismanagement
* Potential data loss from incorrect Git usage
* Dependency/version mismatches