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 offers version control, collaboration features, and remote access, unlike local storage which lacks these capabilities and is limited to a single machine.

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

It enables team collaboration, tracks changes, integrates with CI/CD tools, and ensures code is accessible from anywhere, aligning with cloud computing principles.

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

Risks include security vulnerabilities (e.g., exposed credentials), dependency on internet access, and the learning curve for new users. Mitigations include using private repositories and enabling two-factor authentication.