**Software Engineering LAB 1**

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**How To: Get Started with GITHUB**

**Step 1: Open GitHub**

1. Go to the official GitHub website: <https://github.com>.

**Step 2: Click "Sign Up"**

1. On the top-right corner of the homepage, click the **"Sign Up"** button.

**Step 3: Fill In Your Details**

1. **Enter Your Email Address**:
   * Type a valid email address that you can access.
2. **Create a Password**:
   * Choose a strong password (at least 8 characters, a mix of letters, numbers, and symbols).
3. **Choose a Username**:
   * Pick a unique username (it will be your GitHub handle, e.g., https://github.com/your-username).
4. **Receive Updates** (Optional):
   * Decide if you want to get updates and tips from GitHub by email.

**Step 4: Verify You’re Human**

1. Solve the CAPTCHA or follow the instructions to verify you’re not a bot.

**Step 5: Choose Your Plan**

1. **Free Plan**:
   * Suitable for most users; includes unlimited public and private repositories.
2. **Pro or Team Plans** (Optional):
   * Only if you need advanced features or team management.

**Step 6: Confirm Your Email**

1. Check your email inbox for a verification email from GitHub.
2. Click the link in the email to verify your account.

**Step 7: Explore Your GitHub Dashboard**

1. Once logged in, you’ll see your **GitHub Dashboard**.
2. Start by creating a new repository or exploring GitHub projects.

GIT VS GITHUB:-

GIT-

• Type: A distributed version control system (VCS).

• Purpose: Tracks changes in source code during software development.

• Key Features:

• Version Control: Allows developers to save snapshots of their work and revert to previous versions.

• Branching and Merging: Enables experimentation with multiple code versions simultaneously.

• Local Operations: All operations (like commit, diff, and log) are performed locally on your machine.

• Installation: Installed on your local machine as a command-line tool.

GITHUB-

• Type: A cloud-based hosting platform for Git repositories.

• Purpose: Facilitates collaboration by enabling multiple people to work on the same project and share changes.

• Key Features:

• Remote Repositories: Stores your Git repositories online for easy sharing and collaboration.

• Collaboration Tools: Pull requests, issues, code reviews, and project management.

• CI/CD Integration: Integrates with tools for Continuous Integration/Deployment pipelines.

• Access Control: Provides permissions and visibility settings for repositories (public/private).

• Usage:

• Acts as a bridge to share local Git repositories with team members.

• Hosts repositories with a user-friendly web interface and additional features.

• Common GitHub Commands (using Git to interact with GitHub):

bash

Copy code