LAB # 10

**Getting Familiar with Git & GitHub**

**Objective:** Importance and deep dive related to Git and GitHub

**What are Git and GitHub?**

Git was developed in 2005 by Linus Torvalds as *open source software*for tracking changes in a *distributed version control system*.

Git is open source because its source code is made freely available for anyone to modify and use, aside from its creator. Open-source projects are built and maintained collectively by different developers in different locations.

Git track changes via a distributed version control system. This means that Git can track the state of different versions of your projects while you're developing them. It is distributed because you can access your code files from another computer – and so can other developers.

When you're building an open source project, you'll need a way to document or track your code. This helps make your work organized, and lets you keep track of the changes you've made. This is what Git lets you do.

But you also need a place to host your code – which makes controlling each version of your project easier and faster. This is where GitHub comes in.

GitHub is a "hub" (a place or platform) where Git users build software together. GitHub is also an hosting provider and version control platform you can use to collaborate on open source projects and share files. When you're using GitHub, you're working with Git beneath the hood.

**Why Should You Learn Git and GitHub?**

According to Techmonitor.ai, over 73 million developers use GitHub as of November 2021. And the GitHub community is set to hit 100 million users by 2025.

As you can see, millions of people all over the world use these tools, and the numbers just keep going up.

Because of this, more companies are requiring new hires to know how to use Git and GitHub. So if you're looking for a developer job, these are essential skills to have.

If you're not using Git and GitHub, it's clear – you should be!

**Differences between Git and GitHub**

Git is a version control system that manages and keeps track of your code. GitHub, on the other hand, is a service that let you host, share, and manage your code files on the internet.

GitHub uses Git underneath, and lets you manage your Git repositories or folders easily on its platform.

So Git is the actual version control system and GitHub is the platform where you host your code.

**Task:**

Configure Git in your system and Create Local Git Repository