***Assignment#4***

***Subject: Software Engineering (SE)***

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***Summary:***

This research tutorial is all about something super cool called version control with Git. It might sound a bit technical, but don't worry, I'll break it down for you.Imagine you're working on a project and making changes to the code. Version control is like having a magical time machine that tracks all those changes. It helps you see who made the changes, when they did it, and even why they did it. Plus, if you ever want to go back to an older version of your code or mix different changes together, version control has got your back.

Now, Git is like the superhero of version control systems. It's popular among developers and it's what we'll be diving into. This tutorial covers the basics, like why version control is super important. It's not just about avoiding mistakes, but also about keeping track of all the changes you make and teaming up with others to create awesome stuff.We'll also talk about branches. Think of them as different versions of your code that you can work on separately and then bring together like puzzle pieces. This keeps your main code all tidy and neat.Setting up a repository in Git is like creating a special folder for all your code and changes. And commits? Well, they're like snapshots of your code at different points in time. You can even leave little notes with them to explain what you did and why.

We'll also check out remote Git servers, like Github. It's like a magical cloud where you can store your code online and work with others. You'll learn how to clone a repository from there and how to pull and push changes to stay in sync.Lastly, we'll chat about versioning and tagging. Versioning helps you keep track of which version of your code created certain files. And Git tags? They're like labels that help you associate a specific version number with a particular set of changes. So there you have it! This tutorial is your go-to guide for mastering version control with Git. It's perfect for all you awesome software developers out there who want to keep things organized, avoid those pesky mistakes, and rock at collaborating with your fellow devs.