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Student Registration Number: 241U1R2076	Year & Term: 1&1
Study Level: UG	Class & Section: CSE(AIML-C)
Name of the Course: Computer Essentials	Name of the Instructor: Ms. Jayasri K
Name of the Assessment: Reflective Journal Writing 10	Date of Submission: 23-11-2024

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Journal Entry Topic	git hub, git branching
1. Experience (Class Content)	In this module, madam told about git hub, git branching. This topics are important. These topics easy to learn. In which mam told adout Understand what Git is and how branching works.Create, manage, and merge branches.Resolve conflicts and follow best practices for branching strategies. Basic understanding of Git (cloning, committing, pushing).Installed Git on local machines and access to a GitHub (or other Git platform) repository.

2. Feelings (Emotional Reactions)	<p>when they successfully create branches or merge changes, while curiosity drives them to explore more features. However, challenges like merge conflicts or command errors can lead to frustration, confusion, or anxiety, especially for beginners worried about "breaking" something. With clear guidance and reassurance that mistakes are part of the process, these feelings can shift to confidence and satisfaction as learners master the tools and realize the power of Git in collaborative development.</p>
3. Learning (Key Insights)	<p>First, it introduces the concept of isolated workspaces, where changes can be developed independently on feature branches without affecting the main codebase. This separation allows developers to experiment, test, and iterate without fear of breaking the working version. Understanding this principle highlights the flexibility Git provides compared to linear version control systems.</p> <p>Another important insight is the power of merging and conflict resolution. Merging allows integration of work from different branches into a single, cohesive codebase. However, merge conflicts often serve as a practical lesson in collaboration—showing how simultaneous changes in overlapping files need careful coordination. Resolving these conflicts reinforces the importance of clear communication within a team and adherence to coding standards to minimize disruptions.</p> <p>Git branching also reveals the necessity of strategic workflows in team environments. Approaches like feature branching, Git Flow, and trunk-based development demonstrate how structured branching strategies can streamline development, testing, and deployment. These workflows teach developers to plan and manage changes efficiently, aligning their efforts with team objectives and project milestones.</p> <p>Finally, learning Git branching fosters a growth mindset, as trial and error are integral to the process. Commands like <code>git reflog</code> and <code>git reset</code> demonstrate Git's ability to recover from mistakes, reducing the fear of experimentation. This resilience builds confidence and instills best</p>

	<p>practices, such as committing often and working in small increments, which are invaluable for long-term success in software development.</p>
4. Application (Practical Use)	<p>Feature Development and Bug Fixes: Branching allows developers to work on features or fixes independently without affecting the main codebase.</p> <p>Release Management: Teams use branches to stabilize releases while continuing development, ensuring smooth versioning and deployment.</p> <p>Experimentation: Separate branches enable testing new ideas or approaches without impacting the primary project.</p>
Conclusion	<p>Git branching is a powerful tool that enhances flexibility, collaboration, and organization in software development. It allows developers to work on multiple tasks—such as feature development, bug fixes, and experimentation—simultaneously without risking the stability of the main codebase. By adopting structured branching workflows, teams can streamline their processes, minimize conflicts, and ensure high-quality releases. Mastering Git branching not only simplifies version control but also builds confidence in managing complex projects, making it an indispensable skill for modern development practices.</p>