**WEEK 8 : HO-4:-**

**🔹 Explain Branching and Merging**

* **Branching**: Creating a separate line of development from the main codebase (usually master or main). This allows you to work on new features or fixes without disturbing the stable version of the code.
* **Merging**: Combining changes from one branch into another (e.g., merging a feature branch into master) after development and testing.

**🔹 Explain how to resolve a conflict during merge**

A **merge conflict** occurs when Git cannot automatically combine changes from two branches because the same part of a file was changed differently in each branch.  
To resolve:

1. Identify conflicting files (Git marks them with <<<<<<<, =======, and >>>>>>>).
2. Edit the file manually or use a merge tool (e.g., **P4Merge**) to choose or combine changes.
3. Mark the conflict as resolved using git add.
4. Commit the merge result.

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