**Batch 2: Group 1**

**Assignment 3**

**Aim:** Create a public git repository.

**Objectives:**

1. Set up a public Git repository using a platform like GitHub or GitLab, understanding the fundamentals of version control and collaborative development.
2. Implement branching strategies and workflows conducive to collaborative software development, ensuring code quality and stability.
3. Utilize features such as pull requests, code reviews, and issue tracking to facilitate collaboration, code review, and project management.
4. Apply best practices for documentation, licensing, and README files to enhance the usability and accessibility of the repository for contributors and users.

**Theory:**

**Version Control with Git:**

Git is a distributed version control system widely used for tracking changes in code during software development. It enables developers to work collaboratively on projects, maintaining a history of changes, and facilitating code management across teams. Understanding Git fundamentals, including commits, branches, merges, and remotes, is essential for effective version control and collaboration in a public repository.

**Collaborative Development:**

Public Git repositories provide a platform for collaborative software development, allowing contributors from around the world to collaborate on projects. By implementing branching strategies such as GitFlow or GitHub Flow, teams can manage feature development, bug fixes, and releases efficiently while ensuring code stability. Collaboration features like pull requests enable peer review and feedback, improving code quality and fostering a culture of transparency and accountability.

**Implementation:**

1. Log in/ sign in to GitHub.

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1. Create a new repository.

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1. Provide a repository name, which should be unique and description of your repository and also don’t forget to add Read me file.

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1. Create the repository. Afte that go to settings and add collaborator.
2. Now our repository is ready to start our project.

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**Conclusion:**

Establishing a public Git repository is crucial for fostering open-source collaboration and sharing code with the community. By adhering to best practices in version control, branching strategies, and collaboration workflows, teams can streamline development processes, maintain code quality, and facilitate contributions from a diverse range of developers. With proper documentation and project management practices, a well-maintained public repository becomes a valuable resource for developers and users alike, promoting transparency, innovation, and knowledge sharing within the software development community.