**GitHub Guidelines for the PTFI Project**

Welcome to the Privacy Technologies for Financial Intelligence (PTFI) project within the DataBytes organization on GitHub! We're excited to have you contributing to our project. To ensure smooth collaboration and maintain a high quality of code, we have established some guidelines and best practices that we expect all team members to follow.

**Project Overview**

The PTFI project aims to explore and research prominent privacy technologies that can be applied to secure customer data and assist with data sharing for intelligence purposes in the financial industry. The project focuses on technologies such as Secure Multiparty Computation (SMC or MPC), Homomorphic Encryption (HE), Differential Privacy (DP), and Federated Learning (FL).

**Rules**

**1. Branching Strategy:**

- The `main` branch is the stable, production-ready branch of our repository.

- Create a new branch for each feature, bug fix, or research topic you are working on, after getting approval from admin.

- Use descriptive branch names that clearly indicate the purpose of the branch (e.g., `feature/homomorphic-encryption`, `research/differential-privacy`).

- We usually use ‘data-science’ branch for pushing changes related to our project.

**2. Pull Requests (PRs):**

- Any changes to the repository must be made via a pull request.

- Before creating a pull request, make sure your branch is up to date with the latest changes from the `main` branch.

- Fill out the pull request template with the necessary information, including a clear description of the changes made and any relevant issue numbers.

- Assign at least one team member as a reviewer for your pull request.

**3. Code Review:**

- Every pull request must be reviewed by at least one other team member before being merged.

- Reviewers should provide constructive feedback, suggest improvements, and ensure code quality and adherence to project guidelines.

- Address any feedback or requested changes before the pull request can be approved and merged.

**4. Documentation:**

- Maintain clear and up-to-date documentation for all research, code, and implementations.

- Include README files in each subdirectory explaining the purpose, usage, and any dependencies.

- Use clear and concise language in documentation, making it accessible to both technical and non-technical team members.

**5. Issue Tracking:**

- Use GitHub Issues to track tasks, bugs, and research topics related to the PTFI project.

- Assign appropriate labels to issues to categorize them (e.g., `research`, `bug`, `enhancement`).

- Provide detailed descriptions and any relevant information when creating issues.

**Best Practices**

**1. Commit Frequently:**

- Make small, focused commits that address a single logical change.

- Write clear and descriptive commit messages explaining the purpose of each commit.

**2. Collaboration and Communication:**

- Use GitHub's features like mentions, assignees, and comments to collaborate effectively with team members.

- Engage in respectful and constructive discussions within issues and pull requests.

- Keep communication channels open and responsive to ensure smooth progress.

**3. Security and Privacy:**

- Be mindful of sensitive information and ensure it is not exposed in the repository.

- Follow security best practices, such as avoiding committing secrets or personal data.

**4. Continuous Learning:**

- Stay updated with the latest advancements and research in privacy technologies relevant to the PTFI project.

- Share knowledge, insights, and resources with team members to foster continuous learning and improvement.

Thank you for contributing to the PTFI project! Let's work together to explore and advance privacy technologies in the financial industry.