Proposal to implement CI/CD in our software development process

Ryan and teams
I am writing to share my thoughts on why our team should implement CI/CD in our software development process.

CI/CD (Continuous Integration/Continuous Deployment) is a methodology that involves constantly integrating and deploying code changes to ensure that software is always in a functional and deployable state. By automating the process of building, testing, and deploying code changes, teams can release software updates more quickly and efficiently while maintaining high quality.

How the CI/CD process works:

Continuous Integration

When programmers make changes to the code and send the changes to a 'code repository' like github.com, automated tests are run on the new code to ensure that it doesn't break any existing functionality.

Continuous Delivery/Deployment

When code changes have been tested and integrated (combining separate pieces of code into a whole), codes are automatically deployed (transferred) to a test environment. More tests are run in this environment to ensure that the code works as expected.

Continues Monitoring

Once the code changes have been deployed to production (transferred to production server), monitoring tools (Prometheus) are used to ensure that the application is functioning correctly. If any issues are detected, the CI/CD process is used to quickly roll back the changes and fix the issue.

*Prometheus: An open-source monitoring system that collects and stores time-series data, and can trigger alerts based on predefined thresholds or conditions.

Look forward to discussing this further with you.

Sincerely,
Terry S