# CI/CD

A better way to build and ship products to market

#### Continuous Integration

CI focuses on the early stages of a software development pipeline where the code is built and tested.

Same codebase to multiple developers to work on.

Build frequency can be daily at some point in the project's lifecycle.

Frequent builds enable easy experimentation and the ability to roll-back or abandon undesirable outcomes.



### Continuous Delivery

CD focuses on the later stages of a pipeline, where a completed build artifact is tested, validated and delivered for deployment.

Automate everything, including functional, user acceptance, configuration and testing until the build meets requirements and ready for use in production environment.

Small incremental iterations ensure that any problems revealed in testing are identified and solved quickly and less expensively than traditional software development approaches.



## Benefits of implementing CI/CD

- 1. **Reduce risk** by finding and fixing bugs and issues as soon as they occur, which helps to **reduce cost**.
- 2. **Efficient infrastructure**, automating the creation and configuration of the infrastructure to prevent the human error and faster the deployments, which helps to **avoid cost**.
- 3. **Faster production deployments** by generating more frequent new releases and features to the clients, which helps to **increase revenue**.

## Benefits of implementing CI/CD

- 4. **Less time to market** by deploying to production without manual checks, which helps to **increase revenue**.
- 5. **Reduce downtime** by automating smoke tests after the deployment step, which helps to **protect revenue**.
- 6. **Easier roll-backs**, quick undo to return production to working state, which helps to **protect revenue**.