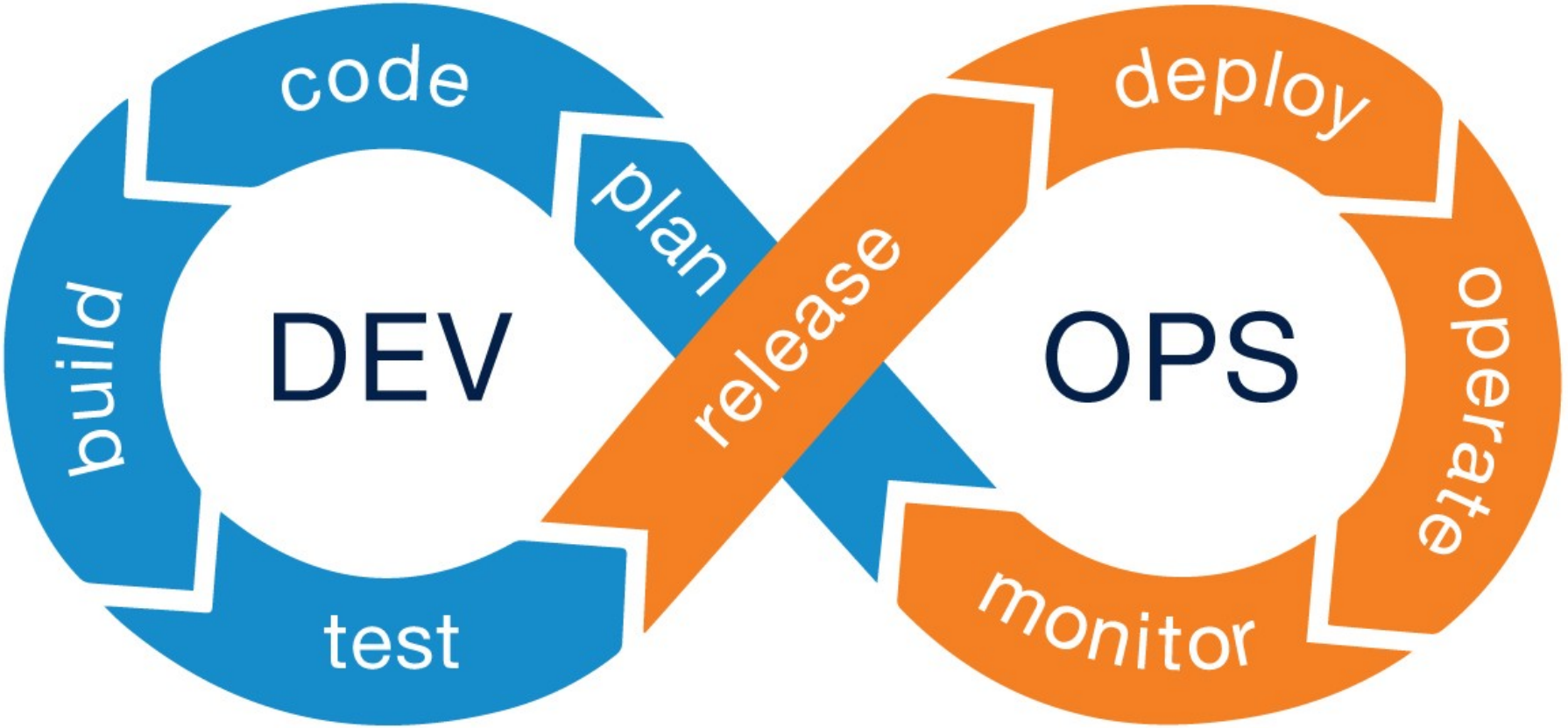
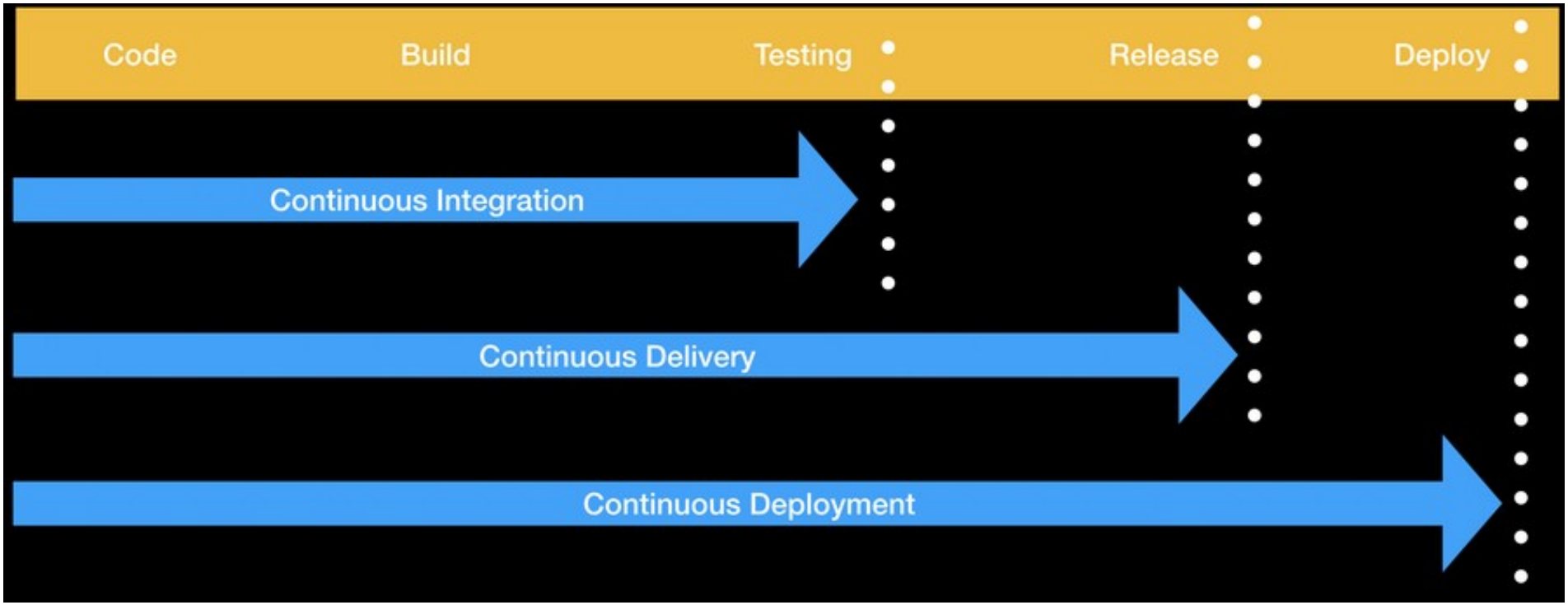
Pipelines 1° part

Development to production

- Organize the code to be functional both during development and production phase
- Reproducibility: the dev phase and the prod need to execute with the same libs bundle
- Avoid Cross env compatibility issues
- Reduce size of image where possible



Development to production



Packaging best practices

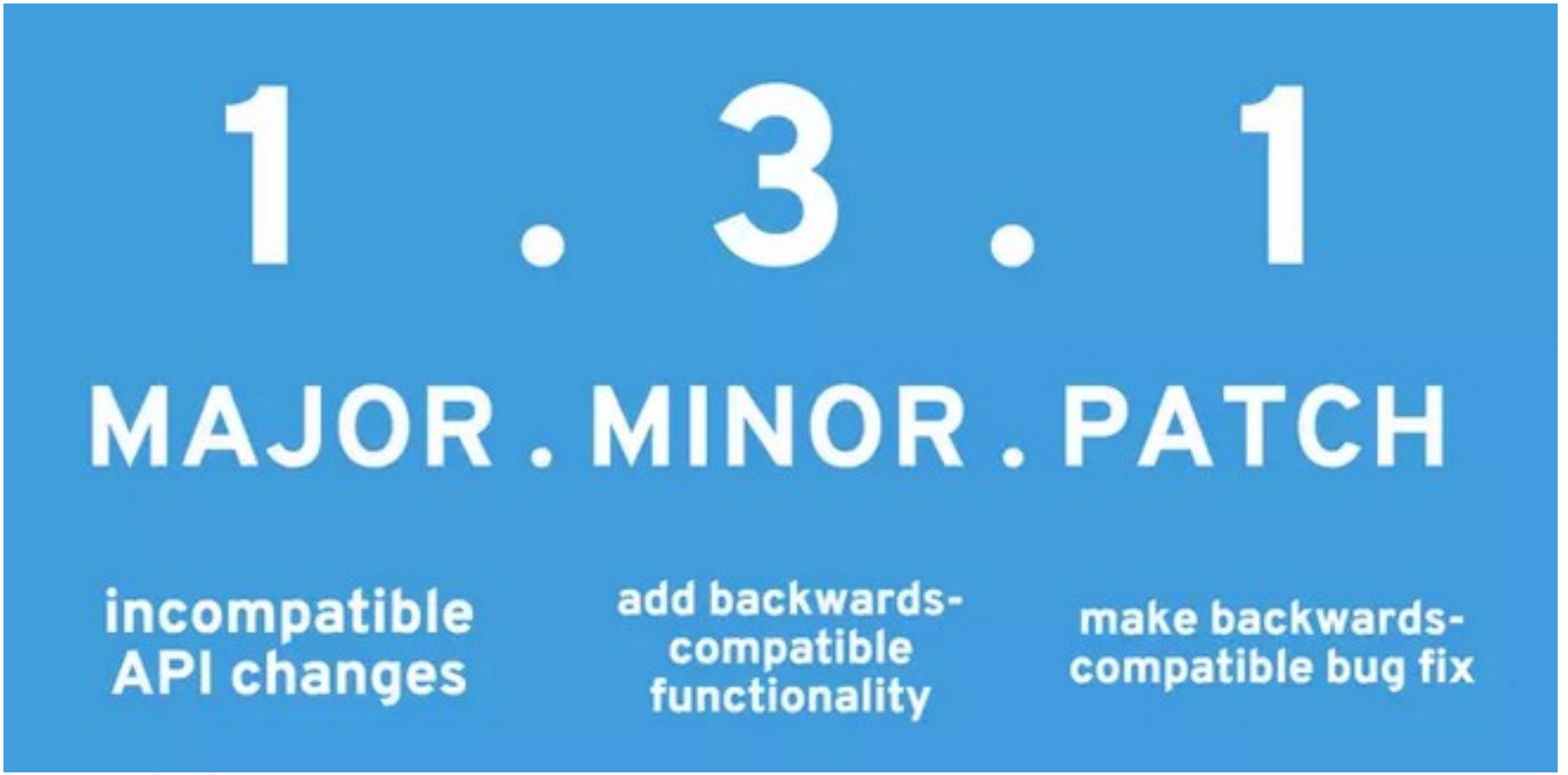
- Most of languages have a package manager to handle the dependencies

language	java	python	js	php
Pkg manager	maven	Pip / poetry	npm	composer

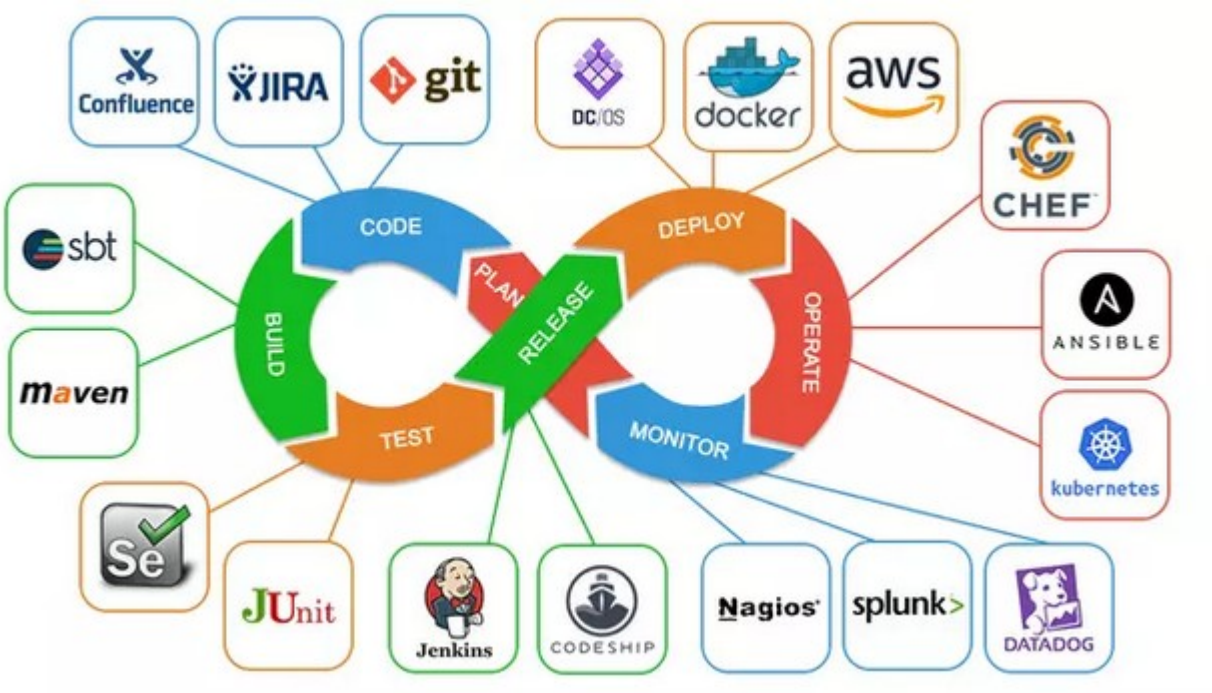
- To avoid compatibility issues the libs used needs to be versioned in a lockfile so **avoid to use latest**

Packaging best practices

- use semver for integration and production



Automation tooling ecosystem



- Choose a continuous integration and continuous delivery (CI/CD) platform to automate your build, test, and deployment pipeline
- **Github Actions**, Gitlabci, jenkins, jfrog…

github actions syntax

- Yaml format (YET ANOTHER MARKUP LANGUAGE)
- https://docs.github.com/en/actions/using-workflows/workflow-syntax-for-github-actions

- Jobs: A workflow run is made up of one or more jobs, which run in parallel by default. A job is a set of steps in a workflow that execute on the same runner. Each step is either a shell script that will be executed, or an action that will be run
- Action: is a custom application for the GitHub Actions platform that performs a complex but frequently repeated task. Use an action to help reduce the amount of repetitive code that you write in your workflow files
- Trigger: To automatically trigger a workflow, use on to define which events can cause the workflow to run (https://docs.github.com/en/actions/using-workflows/events-that-trigger-workflows)

Github actions hands on

- Fork the repository https://github.com/ynov-campus-sophia/ynov-pipelines
- Create a github token (https://github.com/settings/tokens)
- Add github token to your repository secrets (https://github.com/youruser/pipelines/settings/secrets/actions/new)

Examples with java maven

- Hands on maven lifecycle
  https://maven.apache.org/guides/introduction/introduction-to-the-lifecycle.html
- Simple example
  https://github.com/ynov-campus-sophia/ynov-pipelines

- Make a small change in the main java class then commit tag and push

- Pipeline github action is triggered