**Building and Packaging Code**

**Dependecny Managment**

* To develop any application, there will be lots of dependencies on other libraries/sdks
* before building/packaging we need to download these dependencies
  + nodejs npm
  + python pip
  + .net nuget
  + java mvn

**Test Executions**

* We would be running
  + unit tests (test code by writing code) => developers
  + integration tests
    - unit test
    - ui test
    - api test
  + Functional tests
    - ui tests (simulate user) => selenium, cypress, qtp…
    - api tests (postman, rest assured)
  + Performance tests:
    - load testing harness (jmeter, load runner)
* What we should know for ci/cd
  + command to invoke tests
  + where will be test results
  + converting test results to some common formats (junit xml)

**Java Based Applications**

* To build Java Based applications, we have many tools
  + ANT
  + Maven
  + Gradle
* In this case we will be using a maven based java application
  + JDK = 17
  + MVN 3 +
  + Project: <https://github.com/spring-projects/spring-petclinic.git>

**Manual steps**

sudo apt update

sudo apt install openjdk-17-jdk maven -y

git clone https://github.com/spring-projects/spring-petclinic.git

cd spring-petclinic

mvn package # creates package, run unit tests