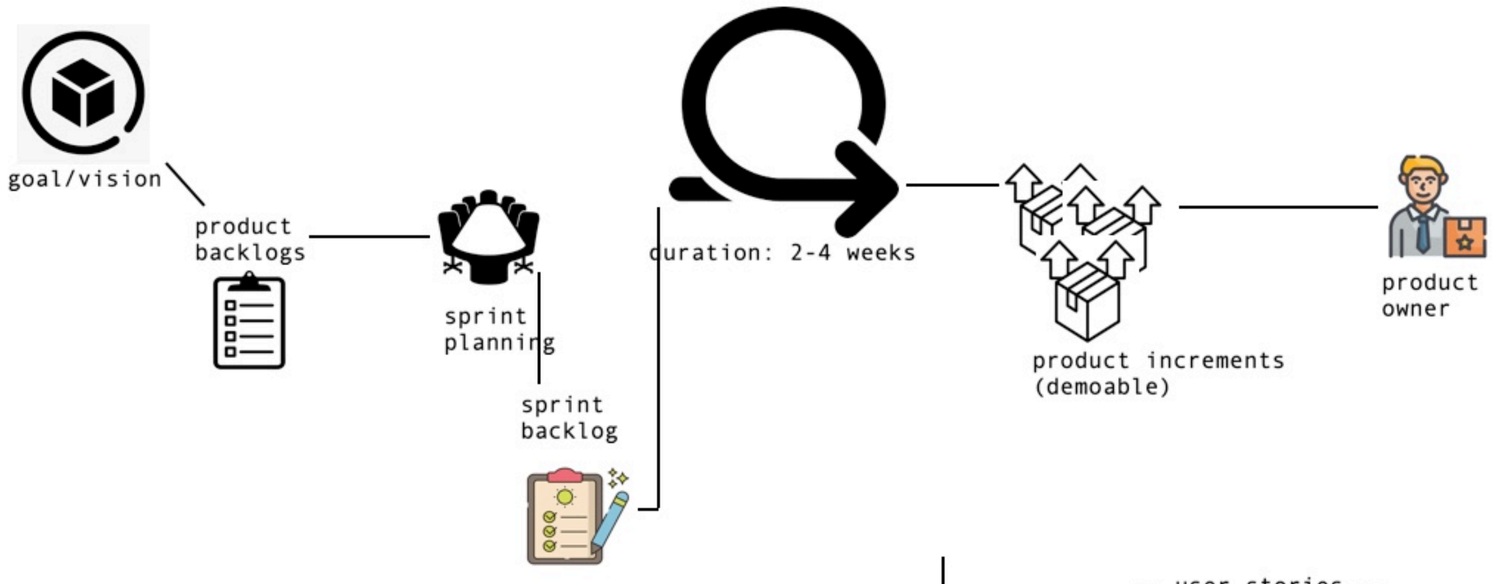
Agile Methodology (SCRUM) with GIT Branching



repository
-main/[master]
 |-develop [sprint-1]
    |-f1 --| (merge)
    |-f2 --| (merge)
    |-f3 --| (merge)
    |-f4
    |-f5

incremental/iterative process model

-trunk
-branches
-tags

Phase#1
[01/01/2023 - 06/30/2023]
 - design and development = 01/01/2023 - 04/30/2023 (code cut-off)
 - qa/uat [01/05/2023 - 06/15/2023]
 - release [06/16/2023 - 06/30-2023]
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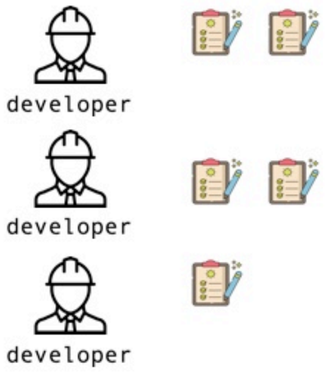
rb-1.0 (trunk) = the entire code/including the commit logs/revisions are copied in branch (locked)

Phase#2
Begin the development from Trunk

-- user stories --
[sprint = 2 weeks]



ci/cd pipeline
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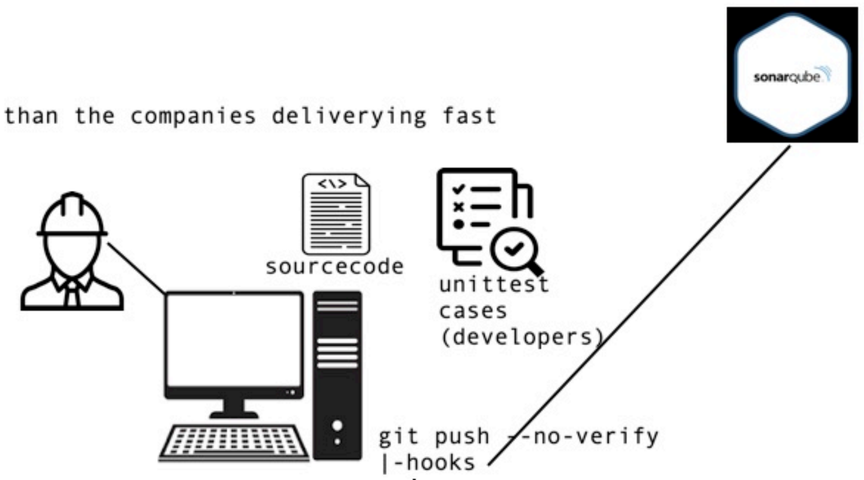
continous integration (CI)
continous deployment (CD)
continous delivery (CD)

devops is all about fast-paced application development and fast-paced application delivery

how do we support fast-paced application development?
Agile Methodology (fast-fail)

how does fast-paced delivery?
The companies often likely to fail more when they are delivery slow than the companies deliverying fast
To implement fast-paced application delivery we need to use
 - devops automation tools
 - continous integration/delivery pipelines



feature -> pr -> develop (branch) (continous integration-pipeline)
 |-build
 |-unittest reports
   |-testcoverage
   |-codereview
 |-build passed/failed
 |-peer code review (process)
once the build is passed and code review approvals are received then only the PR will allowed to merge into develop branch.

git push --no-verify
|-hooks
  -build
  -unittest cases
  -jacaco (code coverage) (75%)
  -sonar (code review)

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upon merging the code into develop:
continous-delivery pipeline
- infra (terraform)
- ansible/puppet/chef (software configuration management)
- maven (compiling/packaging)
- artifacts pushed to artifactory repository (internal maven repo)
- the application will be deployed on the above infra
- integration-tests (e2e developer)
  -> failed = then the code will be rollback to the previous state and will not be futher promoted to uat/prod
  -> passed = deliver this code to qa for testing