

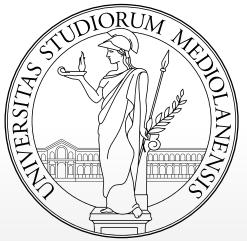
# UNIVERSITÀ DEGLI STUDI DI MILANO

## Sviluppo Software in Gruppi di Lavoro Complesso

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prof. Mattia Monga

a.a. 2020-21



UNIVERSITÀ DEGLI STUDI  
DI MILANO

## 13. Git workflows

# Come si usano i branch? (workflow)

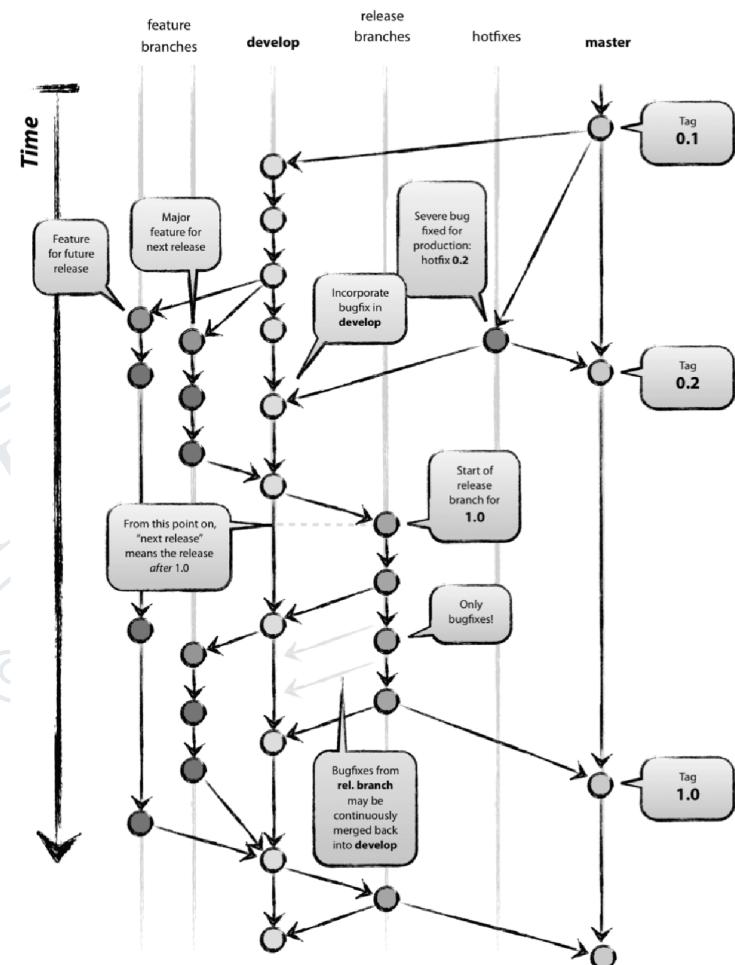
Non è possibile non usarli!

- libertà completa
- git-flow
- gerrit
- pull request



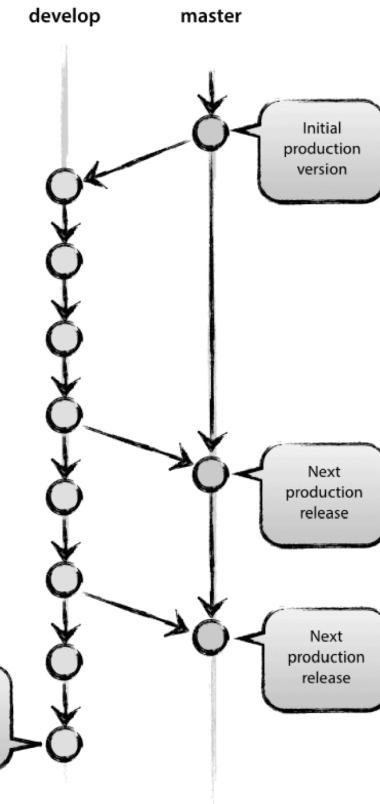
# GitFlow [AVH]

- Differenziazione tra tipi di branch
- nuove operazioni “guidate”
- non visibile nella figura, ma tratta anche i remote



# master e develop

- Sono due rami con “vita infinita”
- **master** (e in particolare origin/master) contiene le versioni “stabili e pronte alla consegna”
- **develop** è il ramo di integrazione





# feature

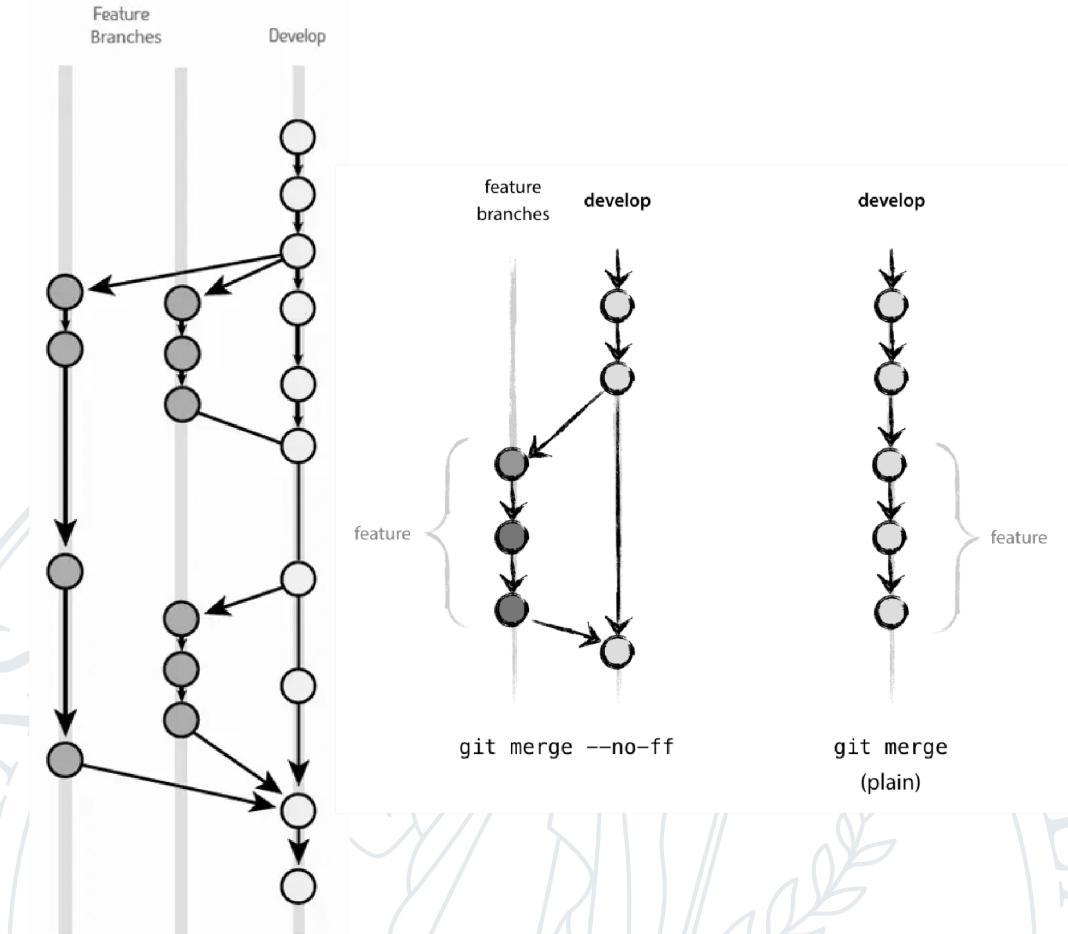
--no-ff su figura (a meno che non sia )

- git flow feature start *feat1*

```
git checkout develop
git branch feat1
git checkout feat1
```

- git flow feature finish [*feat1*]

```
git checkout develop
git merge --no-ff feat1
git branch -d feat1
```





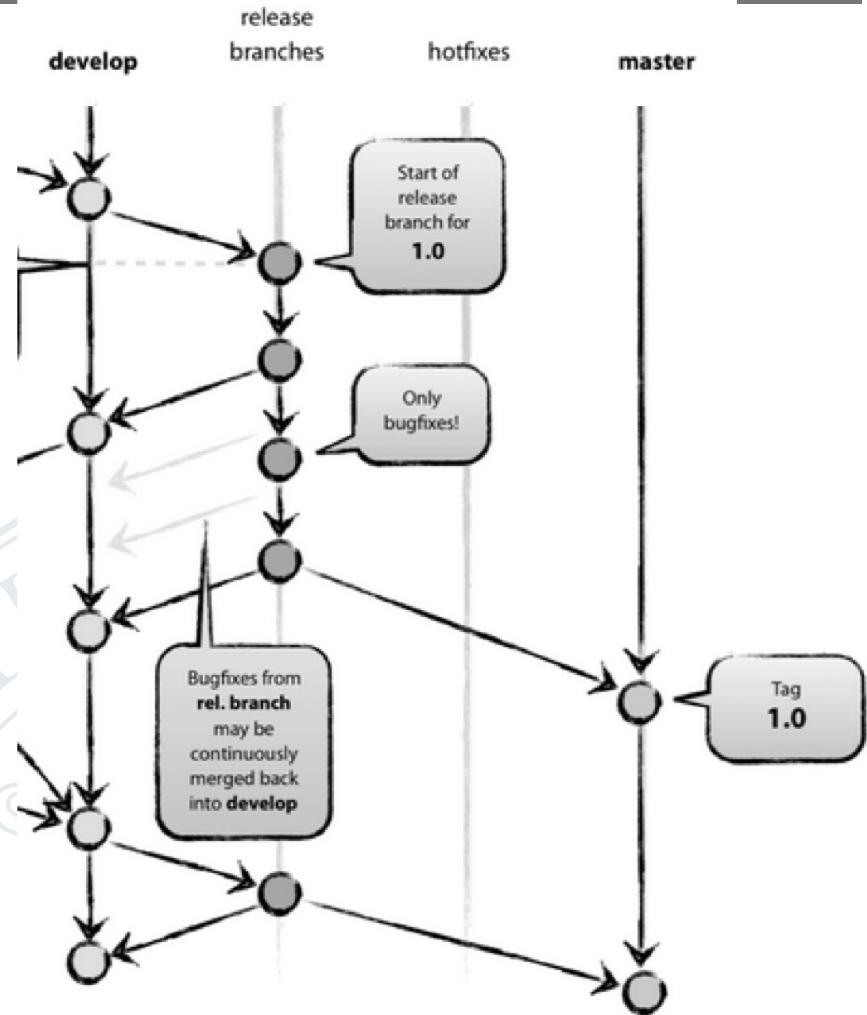
# release

- git flow release start ver

```
git checkout -b ver develop
```

- git flow release finish ver

```
git checkout master
git merge --no-ff release-ver
git tag -a ver
git checkout develop
git merge --no-ff release-ver
git branch -d release-ver
```





# hotfix

Riparazione veloce di difetti urgenti senza aspettare prossima release

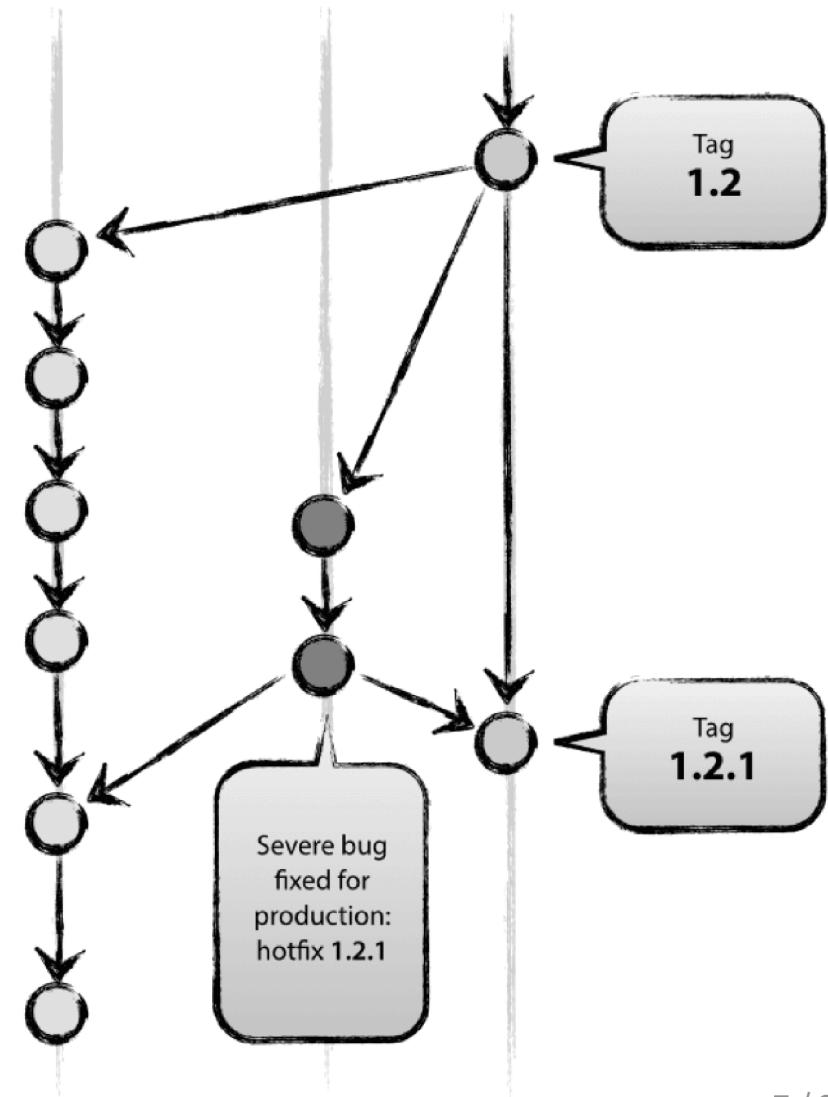
- git flow hotfix start ver

```
git checkout -b ver master
```

- git flow hotfix finish ver

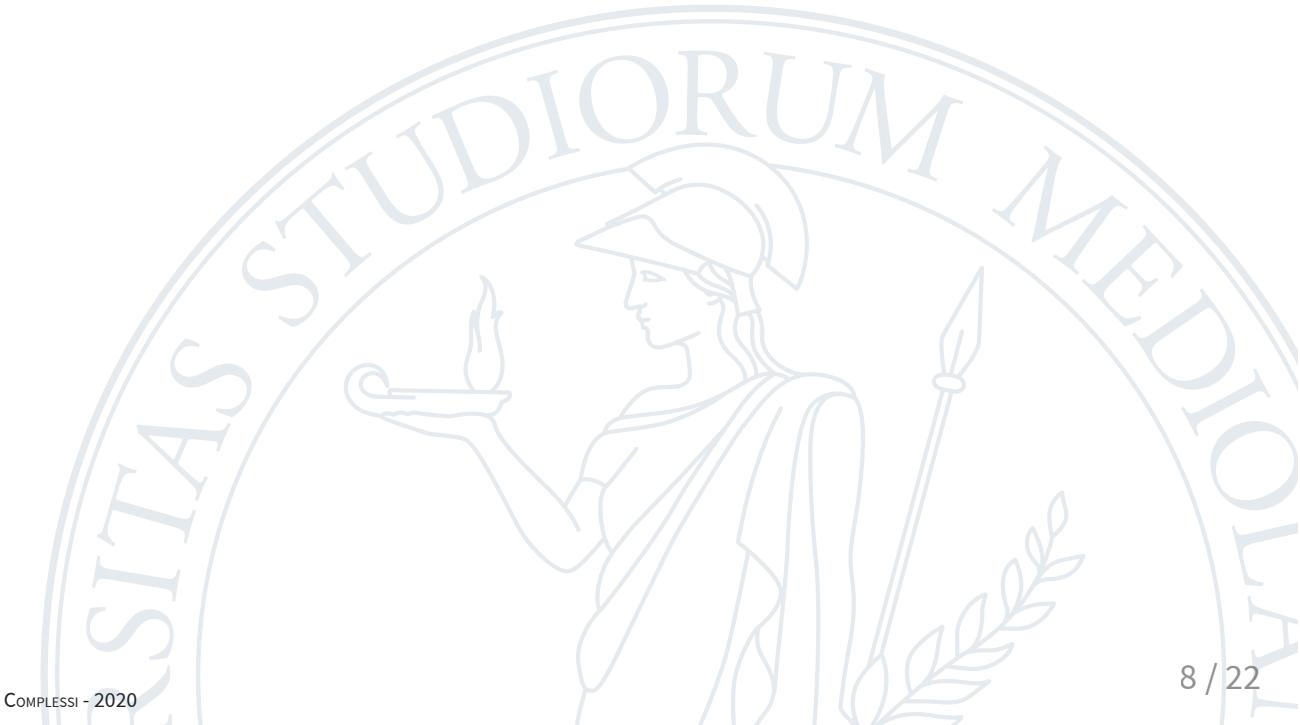
```
git checkout master
git merge --no-ff ver
git tag -a ver
git checkout develop    # uhm ???
git merge --no-ff ver
git branch -d ver
```

develop      hotfixes      master



# Limiti di git

- singolo livello di autorizzazione
- nessun livello di review



# git request-pull

- git-request-pull - Generates a summary of pending changes

```
git request-pull <start> <url> [<end>]
```



```
| git request-pull 5a548dc git@bitbucket.org:emanuelemazzola/p2-lab05-2019.git consegna_16:master  
The following changes since commit 5a548dc21910dd1e7466323812282909c0e6fd2a:
```

```
start (2019-11-13 08:22:34 +0100)
```

are available in the Git repository at:

```
git@bitbucket.org:emanuelemazzola/p2-lab05-2019.git master
```

for you to fetch changes up to 7c2095152be13b030bb42804acf7d8bc7988b6ed:

Risoluzione di alcuni errori: Codizione per la quale il mazziere gioca o meno (almeno un giocatore non deve aver sballato), errata condizione di gioco nella classe mazziere

---

```
Emanuele Mazzola (1):
```

```
 README.md edited
```

```
emanuele.mazzola (5):
```

```
 Prima versione
```

```
 Prima versione tutti i file
```

```
 Seconda versione Distribuzione delle carte iniziali. Modifiche visualizzazione punteggi
```

```
 Nome errato
```

Risoluzione di alcuni errori: Codizione per la quale il mazziere gioca o meno (almeno un giocatore non deve aver sballato), errata condizione di gioco nella classe mazziere

```
.idea/gradle.xml
```

```
 README.md
```

```
 src/main/java/it/unimi/di/prog2/blackjack/BlackJack.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/GiocatoreBJ.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/MaggioreStrategy.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/Mazziere.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/MinoreStrategy.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/MultiMazzo.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/RandomStrategy.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/RischioStrategy.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/Sfidante.java
```

```
 src/main/java/it/unimi/di/prog2/blackjack/Strategia.java
```

```
 12 files changed, 180 insertions(+), 10 deletions(-)
```

```
 create mode 100644 src/main/java/it/unimi/di/prog2/blackjack/MaggioreStrategy.java
```

```
 create mode 100644 src/main/java/it/unimi/di/prog2/blackjack/MinoreStrategy.java
```

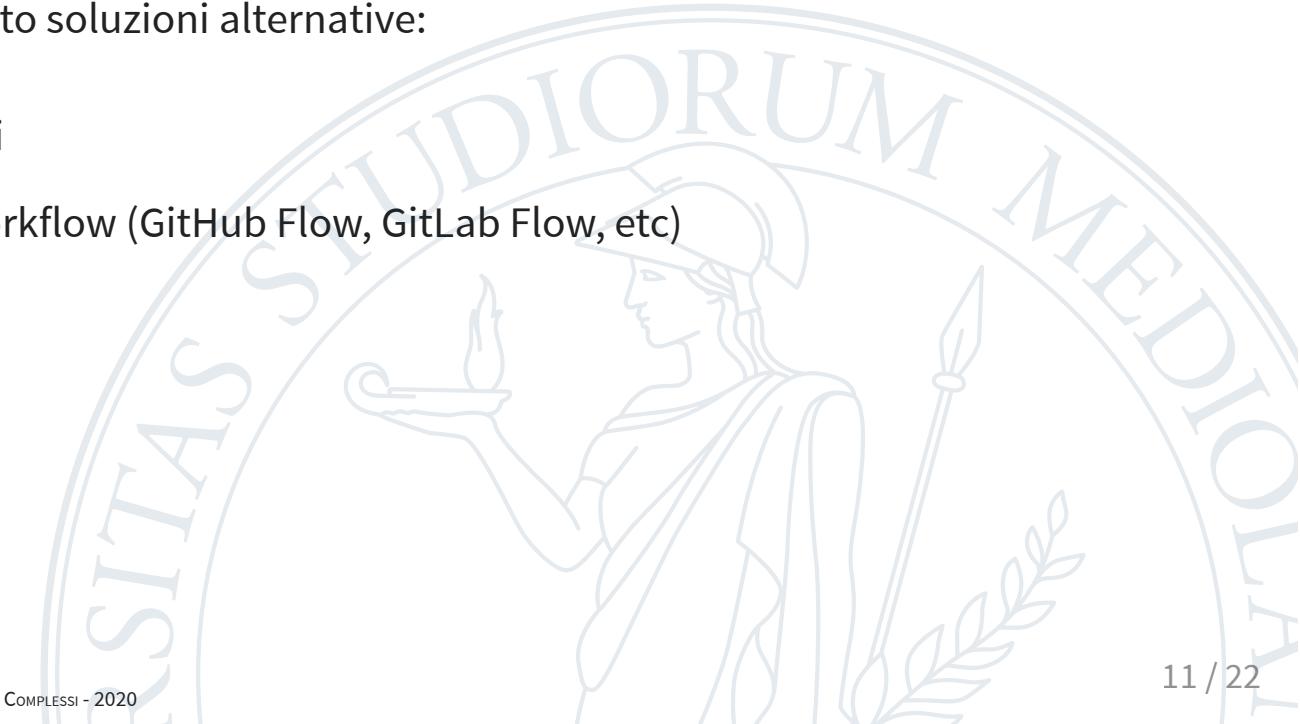
```
 create mode 100644 src/main/java/it/unimi/di/prog2/blackjack/RischioStrategy.java
```

1 +	
4 +- -	
29 ++++++-----	
3 +- -	
24 ++++++-----	
23 ++++++-----	
23 ++++++-----	
14 ++++++-----	
2 +- -	
27 ++++++-----	
34 ++++++-----	
6 +++++	



# Progetti Open Source

- Soffrono in particolar modo per questi limiti
- Gli ambienti di hosting hanno cercato soluzioni alternative:
  - inventandosi nuovi meccanismi
  - provando a “imporre” nuovi workflow (GitHub Flow, GitLab Flow, etc)

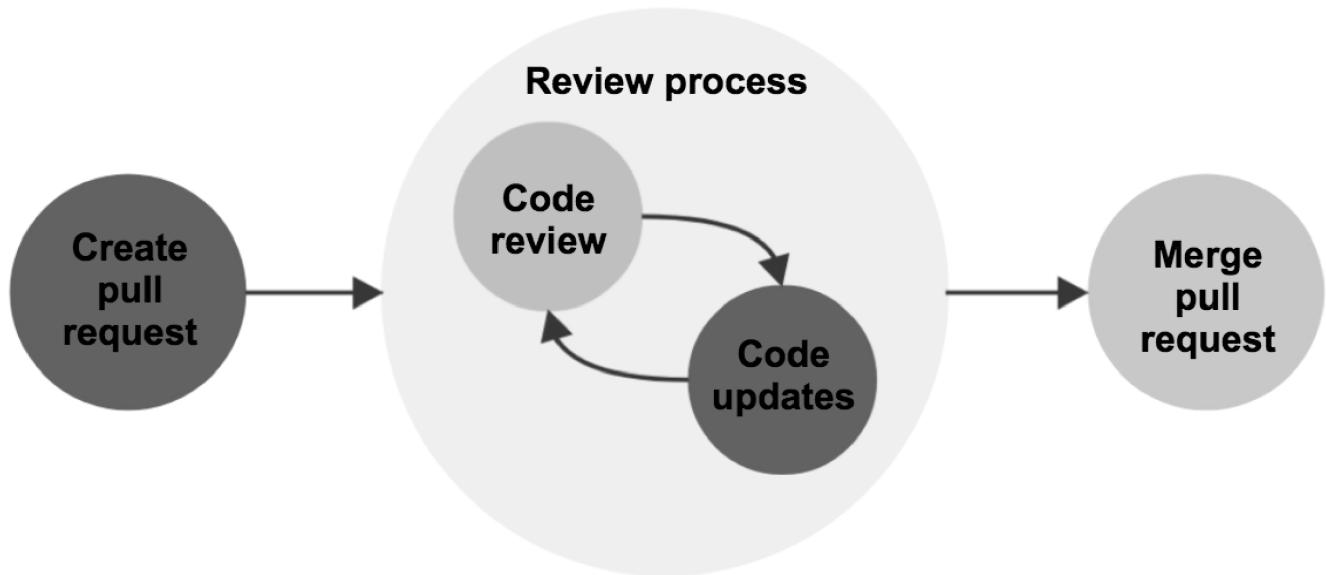


# Fork

- Risolve un primo problema di autorizzazioni
  - permette di mantenere legami tra repository su sito di hosting ma con owner e autorizzazioni diversi
- Ottimizzazioni
  - condivisione dello spazio degli oggetti (già visto)



# Tra creazione e deploy va prevista una fase di review



# (fork & )Pull requests

Permette di gestire interazioni lasche tra sviluppatori mediante  
dal sito di hosting

New Merge Request

Source branch

carlobellettini/bebras\_local\_editor Select source branch

Target branch

aladdin-bebras/bebras\_local\_editor master



tolti console log di debug  
Carlo Bellettini authored 1 day ago

Open Opened 5 months ago by Matteo Zolia

Edit Mark as ready

## WIP: Align Checkstyle rule #3 to PMD

1 unresolved thread

Overview 4 Commits 9 Changes 43

10 Jun, 2020 9 commits

Amend due to wrong merge  
Matteo Zolia authored 5 months ago

1b0e4b14

Several fixes  
Matteo Zolia authored 5 months ago

70944ea6

PRIMITIVES, parameter check, return type check, variable check  
Anna Boselli authored 5 months ago

a86e1c05

PRIMITIVES, parameter check, return type check  
Anna Boselli authored 5 months ago

f2f673d7

Fixed class fields like PMD  
Matteo Zolia authored 5 months ago

6c7ee707

prof. Mattia Mongi

20

verificaEconvalida > objectCalisthenics > Merge Requests > 130

Open Opened 5 months ago by Matteo Zolia Developer

Edit Mark as ready

## WIP: Align Checkstyle rule #3 to PMD

Overview 4 Commits 9 Changes 43

1 unresolved thread

@Le5fa and I (@teozolia) propose a merge request to align the Checkstyle version with PMD one to agree on rule 3 constraints given in #11.

We will port all the 34 test cases to ensure the same behavior for both Checkstyle and PMD.

Request to merge Le5fa:checkstyle into checkstyle  
The source branch is 14 commits behind the target branch

Open in Web IDE Check out branch

Checking pipeline status

Approve Approval is optional

Merge This merge request is still a draft.

Mark as ready

Draft merge requests can't be merged.

You can merge this merge request manually using the command line

0 0

Oldest first Show all activity

Matteo Zolia @teozolia added 1 commit 5 months ago  
• 6c7ee707 - Fixed class fields like PMD

Compare with previous version

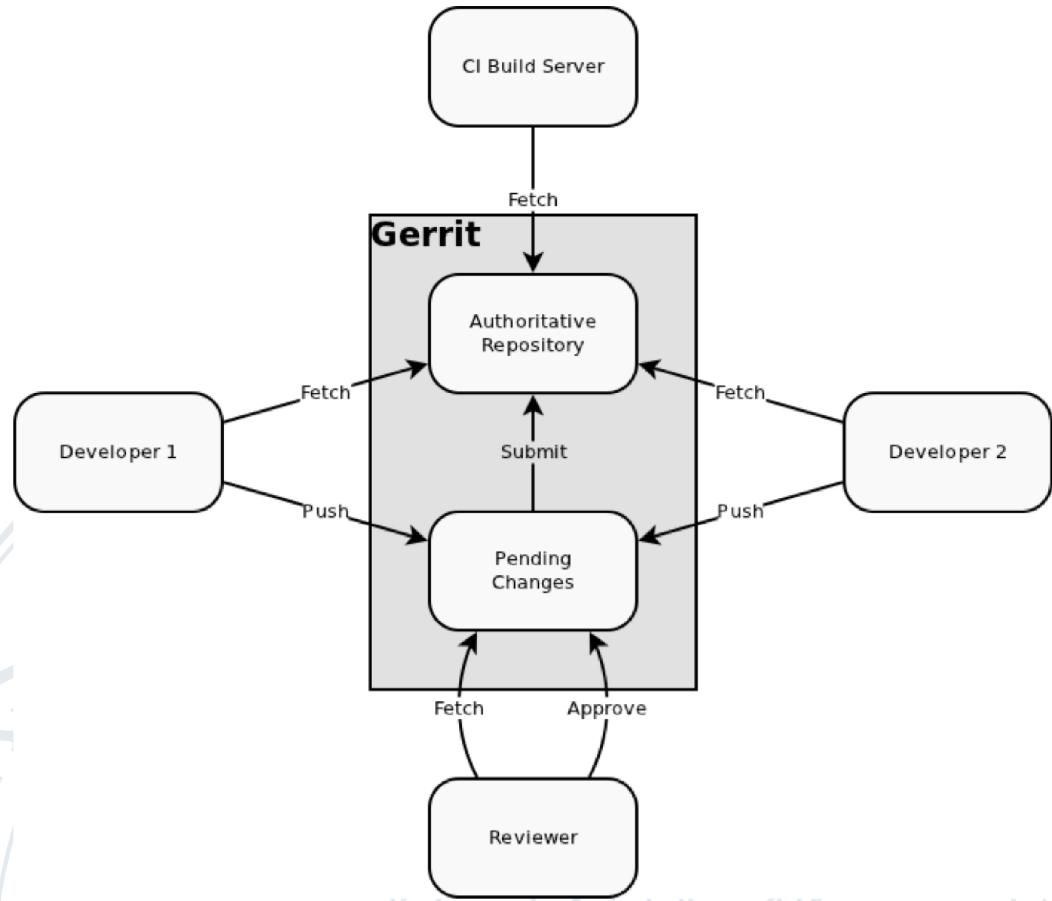
Anna Boselli @Le5fa added 2 commits 5 months ago  
• f2f673d7 - PRIMITIVES, parameter check, return type check  
• a86e1c05 - PRIMITIVES, parameter check, return type check, variable check

Compare with previous version

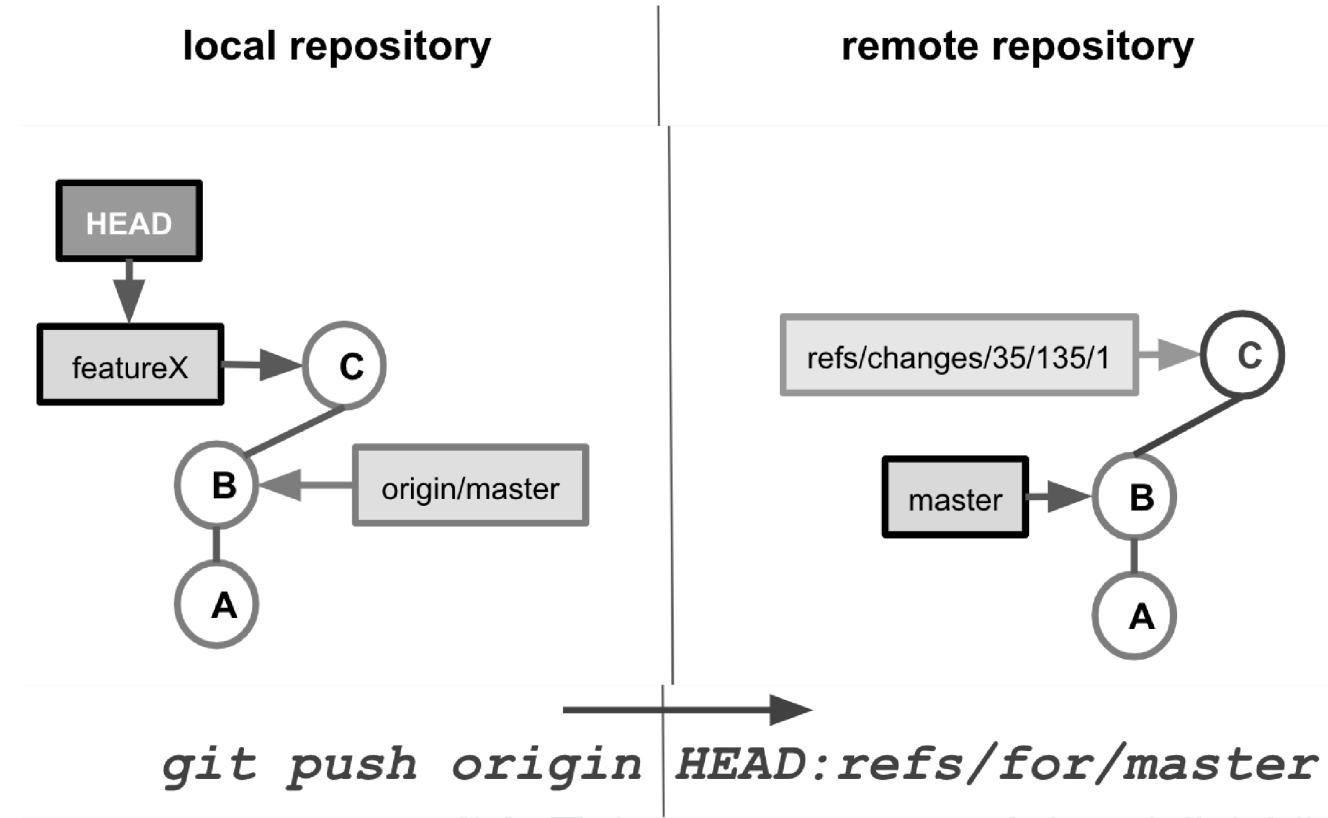
Matteo Zolia @teozolia added 1 commit 5 months ago  
• 70944ea6 - Several fixes

# Gerrit

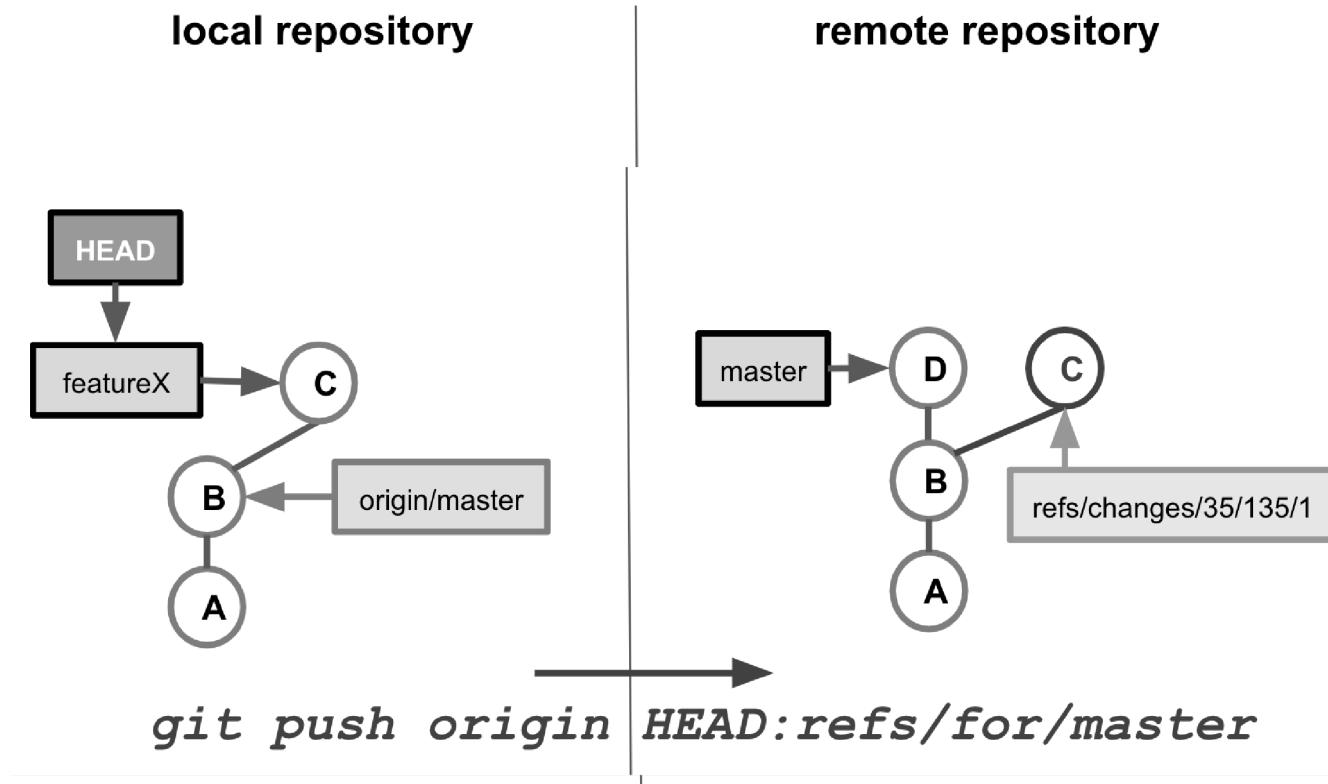
- progetto di Google
  - AOSP
- peer review delle sottomissioni
- può essere pensato come due git server



# Push for code review



# Push for code review 2



☆ Active

208892: added margin bottom to the paragraph before the create change button

✓ CODE-REVIEW+2

REBASE

ABANDON

EDIT

⋮

Updated Jan 03

Owner Thomas Shafer ()

Assignee Set assignee...

Reviewers  Dave Borowitz X

 GerritForge CI X

 Mona El Mahdy X

AND 2 MORE

ADD REVIEWER

CC ADD CC

Repo [gerrit](#)

Branch [master](#)

Parent [bc63487](#)  ⓘ

Topic ADD TOPIC

Strategy Merge if Necessary

Hashtags ADD HASHTAG

✓ Verified

+1  GerritForge CI 

Code-Review

No votes.

✓ Code-Style

+1  GerritForge CI 

Files

Base → Patchset 2

[b6d5b7e](#) 

NO PATCHSET DESCRIPTION

DOWNLOAD

EXPAND ALL

Commit message

M [polygerrit-ui/app/elements/change-list/gr-create-change-help/gr-create-change-help.html](#)

 +1 -0

+1 -0

No Tricium Results

More info/File bug

Change Log

Comment Threads

Only comments

EXPAND ALL

 Thomas Shafer () Uploaded patch set 1.

Dec 29 00:42 ⌂

 Thomas Shafer () added to REVIEWER:  Patrick Hiesel  Arnab Banerjee ()

Dec 29 00:42 ⌂

# Approver: Reviewing a change

If you are assigned to be the Approver for a change, you need to determine the following:

- Does this change fit within this project's stated purpose?
- Is this change valid within the project's existing architecture?
- Does this change introduce design flaws that will cause problems in the future?
- Does this change follow the best practices that have been established for this project?
- Is this change a good way to perform the described function?
- Does this change introduce any security or instability risks?

If you approve of the change, mark it with LGTM ("Looks Good to Me") within Gerrit.



# Verifier: Verifying a change

If you are assigned to be the Verifier for a change, you need to do the following:

- Patch the change into your local client using one of the Download commands.
- Build and test the change.

Within Gerrit use Publish Comments to mark the commit as "Verified" or "Fails," and add a message explaining what problems were identified.



# Esempio AOSP

