

# **AAE2004 Introduction to Aviation Systems**

## **AAE**

### **Design of Path Planning Algorithm for Aircraft Operation**

#### **Week 8 (First Week) – Introduction to GitHub Operations**

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# Mutual editing on a document with collaborators remotely?

acceptance	26/3/2021 11:58 AM	File folder	
final submission	2/8/2021 11:38 AM	File folder	
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References.docx	14/7/2020 9:16 AM	Microsoft Word D...	18 KB

Download files from various channels, such as mail, whatsapp, etc?

Can we edit the documents online ? Google, Microsoft has the solutions!

Can we edit the “code” online?

**Github**

# Archive your coding online (in the cloud)

Video: **VSC-Git Basic Operations**

Pull: *To update local branch with remote, update all remote tracking branches*

Pull

Clone : *To download a repository to your local machine*

Check out to: *Switch to a specific branch*

Open file and  
Check out to

Code and  
Debugger

Clone/  
Fetch

Fetch : *To pull a branch to your local machine*

Commit

New  
Version

Add  
(Stage)

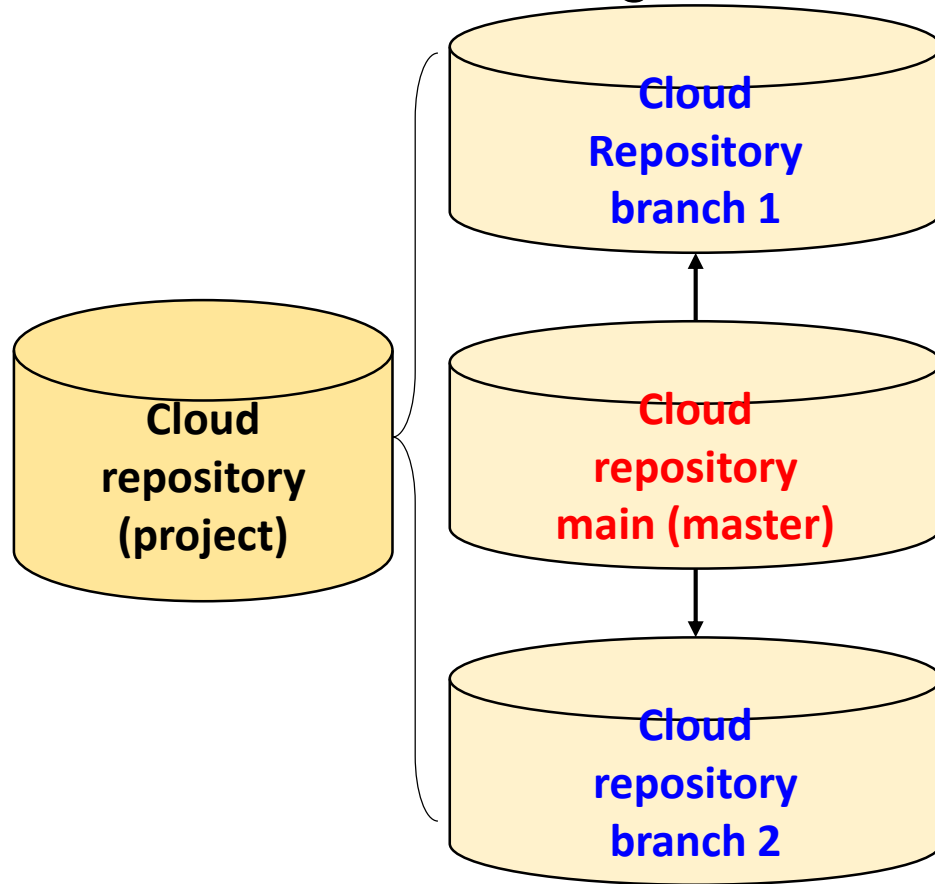
Push

Push: *To upload the commit made on a local branch to GitHub*

Commit: *To create a snapshot of the repository*

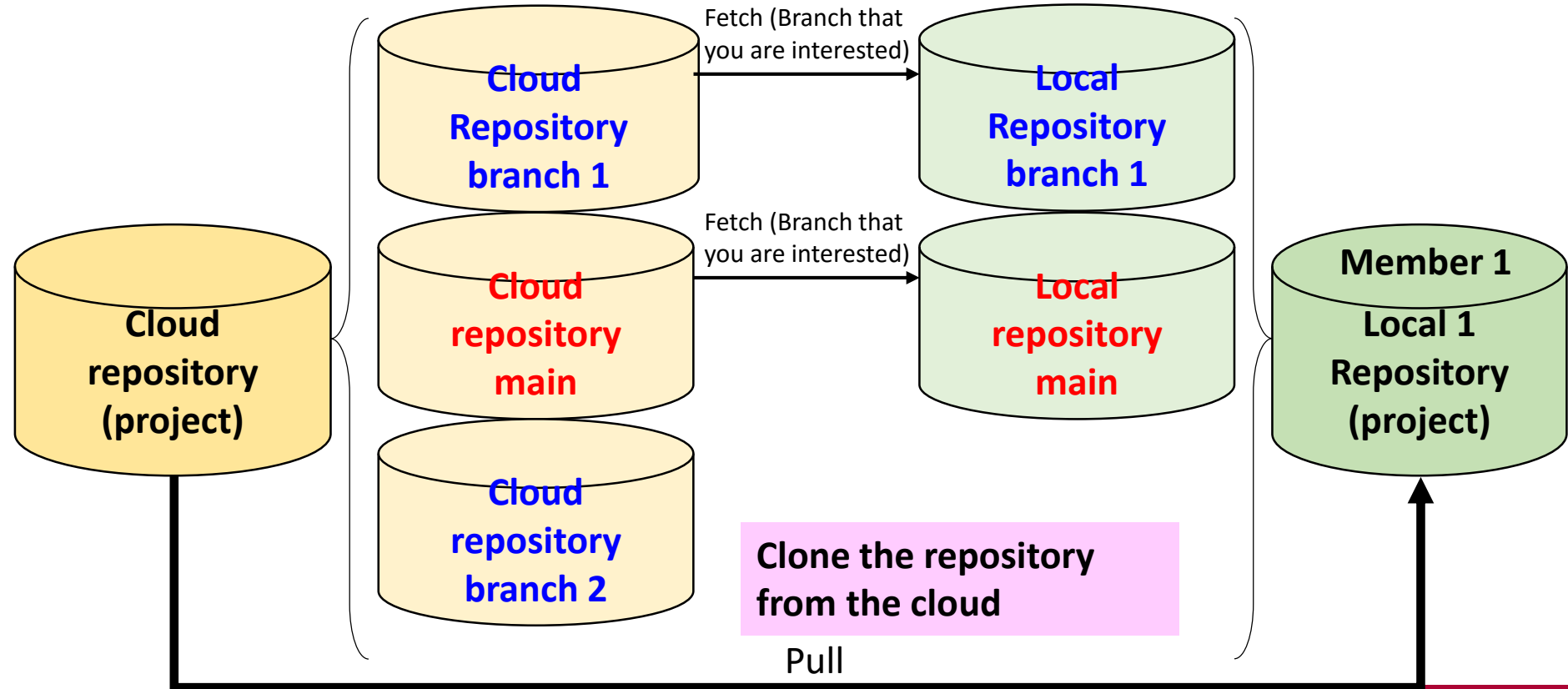
Add (Stage): *To add files or segments in the next commit*

# Collaborative coding online – Generate Branch (Member)

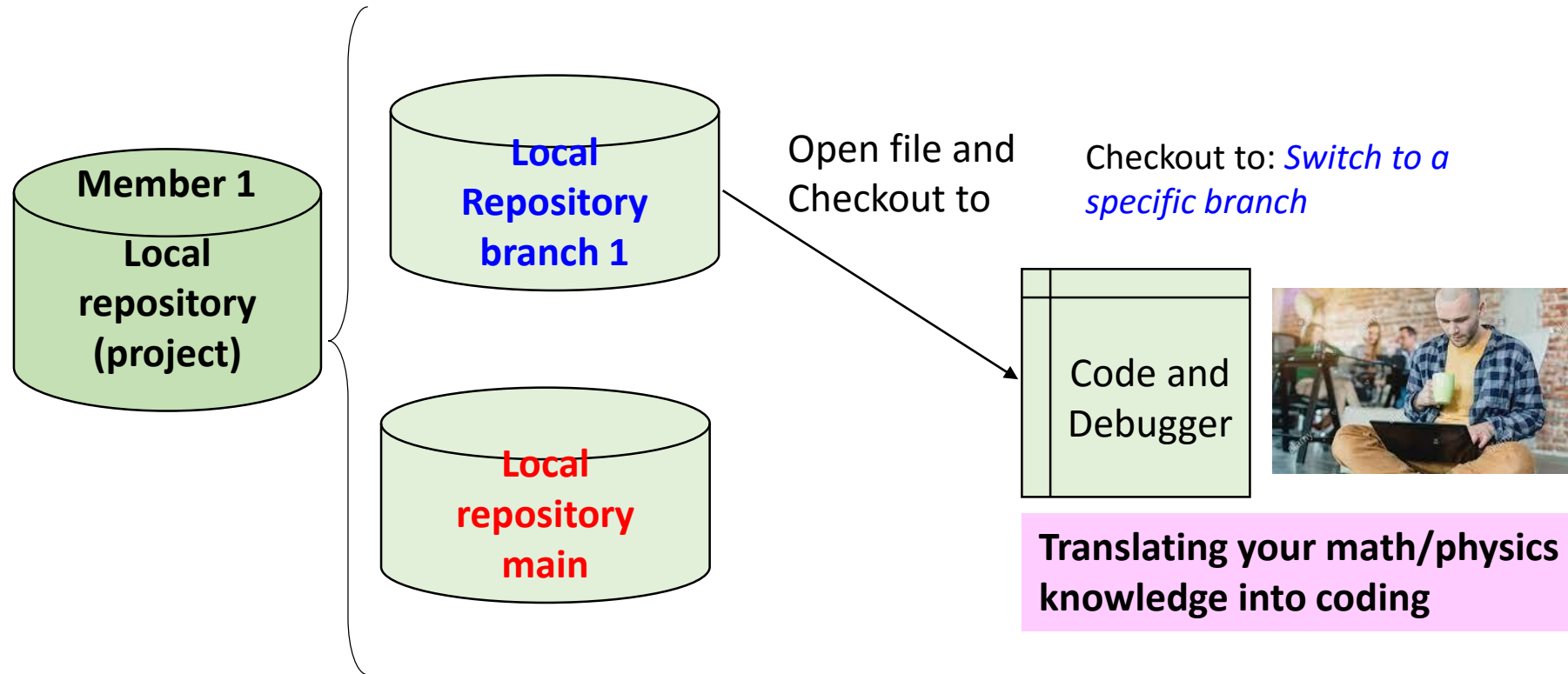


To generate a branch for different member that participant the project, creating a contained area of your repository to develop features, fix bugs and more.

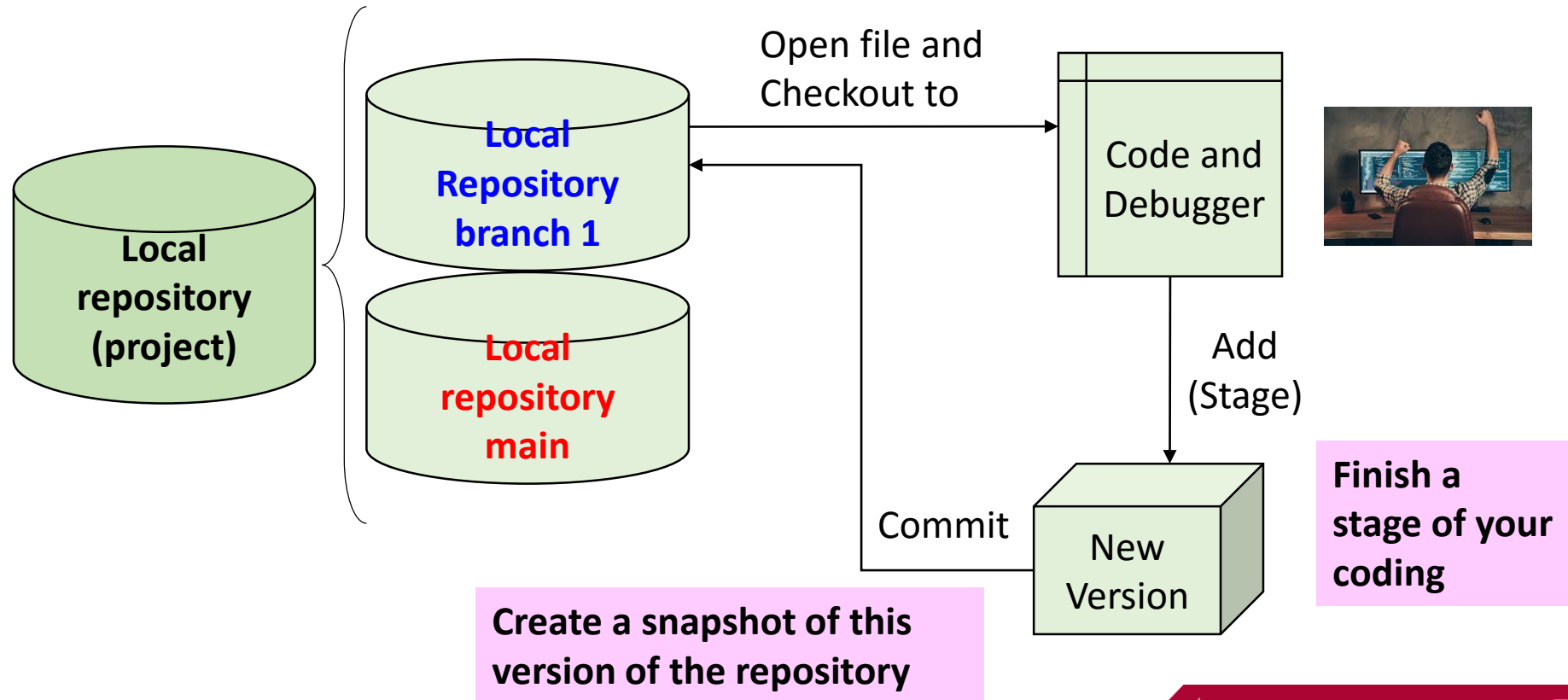
# Collaborative coding online – Fetch/Pull Branch from Cloud



# Collaborative coding online – Edit the code in the local computer



# Collaborative coding online – Edit the code in the local computer



# Concept of collaborative coding online

Web based

Video: **VSC-Git**  
**Branches**

Ready to update to the cloud branch!

Open file and  
Check out to

Let the group  
leader knows  
my work

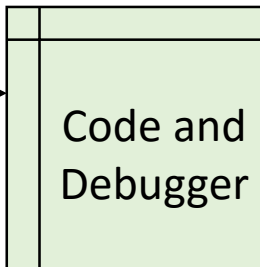
Merge by Pull Request

File 1 in the local

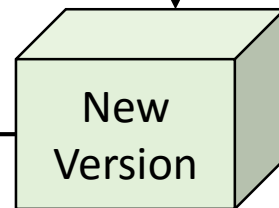
File 1 in the cloud



Commit



Add  
(Stage)

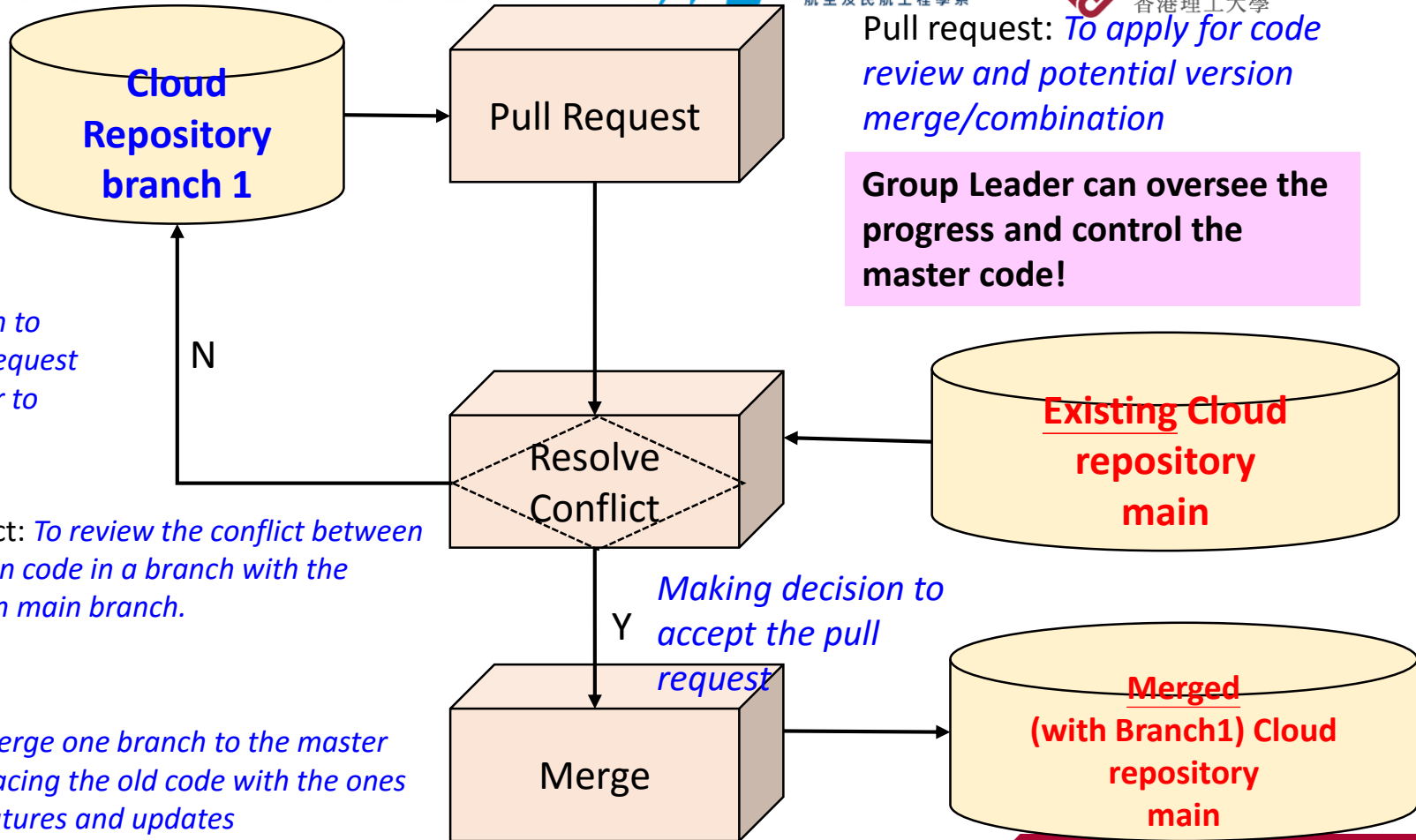


If the project leader does not know what you upload to the source code, you will create a lot of confusions!





Web based



Pull request: *To apply for code review and potential version merge/combination*

**Group Leader can oversee the progress and control the master code!**

*Making decision to reject the pull request ask the member to revise.*

Resolve Conflict: *To review the conflict between the new version code in a branch with the existing code in main branch.*

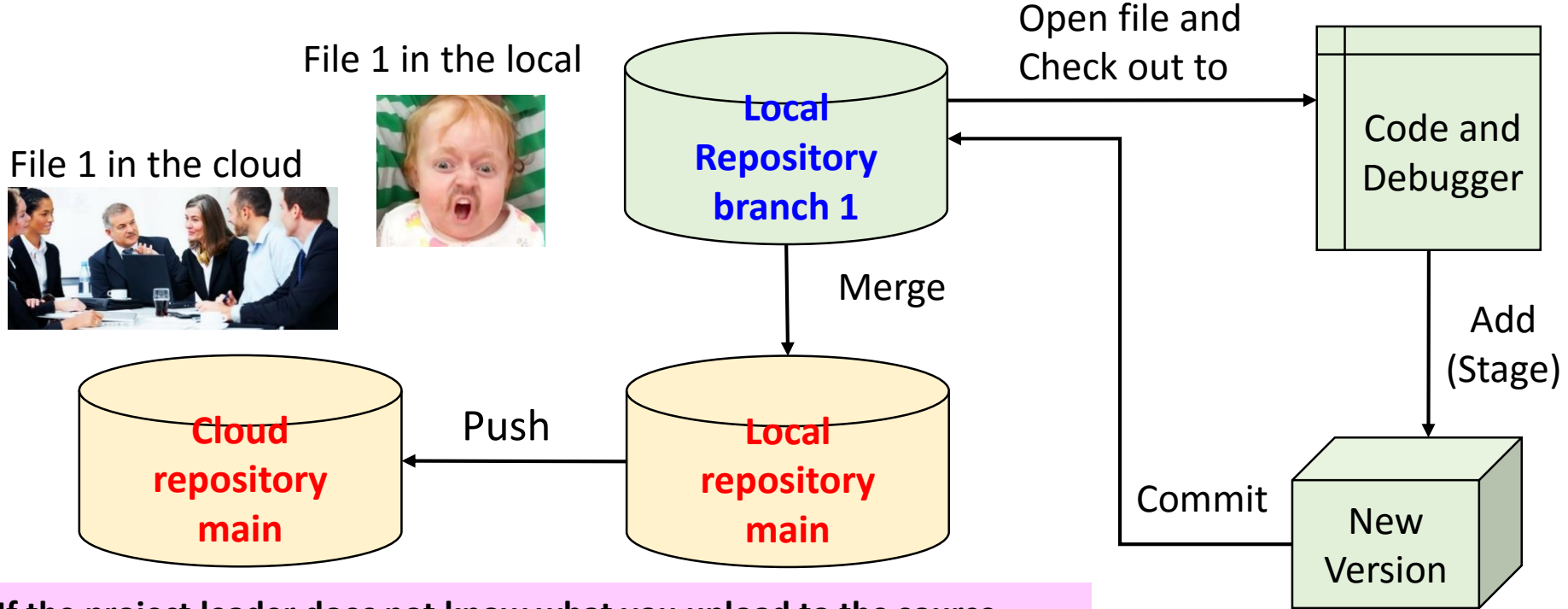
*Making decision to accept the pull request*

Merge: *To merge one branch to the master branch, replacing the old code with the ones with new features and updates*

# Concept of collaborative coding online

VS code based

Video: **VSC** **Git**  
**Conflicts**



If the project leader does not know what you upload to the source code, you will create a lot of confusions!

# GitHub Tutorial Videos (Web Version)

- **Signing Up:**  
[https://www.youtube.com/watch?v=djwgi6YpZWY&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=djwgi6YpZWY&ab_channel=POLYUIPNL)
- **Group Leader Operations:**  
[https://www.youtube.com/watch?v=xmy9UaXZqAI&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=xmy9UaXZqAI&ab_channel=POLYUIPNL)
- **Group Member Operations:**  
[https://www.youtube.com/watch?v=xVtcexks7EA&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=xVtcexks7EA&ab_channel=POLYUIPNL)
- **Creating New Repository + Setup:**  
[https://www.youtube.com/watch?v=fD6x3wborEI&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=fD6x3wborEI&ab_channel=POLYUIPNL)
- **Commit & Merge:**  
[https://www.youtube.com/watch?v=34bSuMcdHP4&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=34bSuMcdHP4&ab_channel=POLYUIPNL)
- **Commit & Merge (rejected):**  
[https://www.youtube.com/watch?v=6zPyvGKE804&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=6zPyvGKE804&ab_channel=POLYUIPNL)
- **Searching and Downloading:**  
[https://www.youtube.com/watch?v=5rtr63yCO0c&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=5rtr63yCO0c&ab_channel=POLYUIPNL)

# GitHub Tutorial Videos (With VS Code)

- **VSC Setup with GitHub:**  
[https://www.youtube.com/watch?v=GXbxHbjJQDc&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=GXbxHbjJQDc&ab_channel=POLYUIPNL)
- **VSC Setup with GitHub (Mac):**  
[youtube.com/watch?v=iUyr8iG1G8k&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=iUyr8iG1G8k&ab_channel=POLYUIPNL)
- **VSC Git Basic Operation:**  
[youtube.com/watch?v=juEEJkgq6fl&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=juEEJkgq6fl&ab_channel=POLYUIPNL)
- **VSC Git Branches:**  
[https://www.youtube.com/watch?v=5qUDIFg5gAM&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=5qUDIFg5gAM&ab_channel=POLYUIPNL)
- **VSC Git Conflicts:**  
[https://www.youtube.com/watch?v=4JrCfXhmavg&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=4JrCfXhmavg&ab_channel=POLYUIPNL)
- **VSC Commits & Pushes with web merges:**  
[https://www.youtube.com/watch?v=34bSuMcdHP4&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=34bSuMcdHP4&ab_channel=POLYUIPNL)
- **VSC Pushing (No web):**  
[https://www.youtube.com/watch?v=dSWB5QCUdpE&ab\\_channel=POLYUIPNL](https://www.youtube.com/watch?v=dSWB5QCUdpE&ab_channel=POLYUIPNL)