

AAE1001 - Introduction to Artificial Intelligence and Data Analytics in Aerospace and Aviation Engineering

Week 9 – Introduction to GitHub Operations

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Mutual editing on a document with collaborators remotely?

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|---|--------------------|---------------------|-----------|
| acceptance | 26/3/2021 11:58 AM | File folder | |
| final submission | 2/8/2021 11:38 AM | File folder | |
| ieee_taes_novatel_heatmap | 29/7/2020 2:44 PM | File folder | |
| My EndNote Library.Data | 20/7/2020 9:17 PM | File folder | |
| My EndNote Library.enl.unzipped | 14/7/2020 9:26 AM | File folder | |
| revision 1 | 28/12/2020 5:31 PM | File folder | |
| Artical file (single column).docx | 24/8/2020 3:55 PM | Microsoft Word D... | 4,036 KB |
| Article Processing Charges.pdf | 19/4/2021 9:33 AM | Adobe Acrobat D... | 118 KB |
| cover letter.docx | 28/7/2020 12:26 PM | Microsoft Word D... | 17 KB |
| figure.pptx | 22/6/2020 11:11 AM | Microsoft PowerP... | 7,122 KB |
| ieee_taes_3dma_rtk (20200612 Ivan).docx | 22/6/2020 10:12 AM | Microsoft Word D... | 4,103 KB |
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| ieee_taes_3dma_rtk (20200714 LT).docx | 15/7/2020 5:47 PM | Microsoft Word D... | 4,306 KB |
| ieee_taes_3dma_rtk (20200722 lucy).docx | 23/7/2020 4:49 PM | Microsoft Word D... | 7,319 KB |
| ieee_taes_novatel_heatmap.rar | 29/7/2020 2:42 PM | WinRAR archive | 13,851 KB |
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| My EndNote Library.enl | 8/1/2021 10:42 AM | EndNote Library | 141 KB |
| 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)

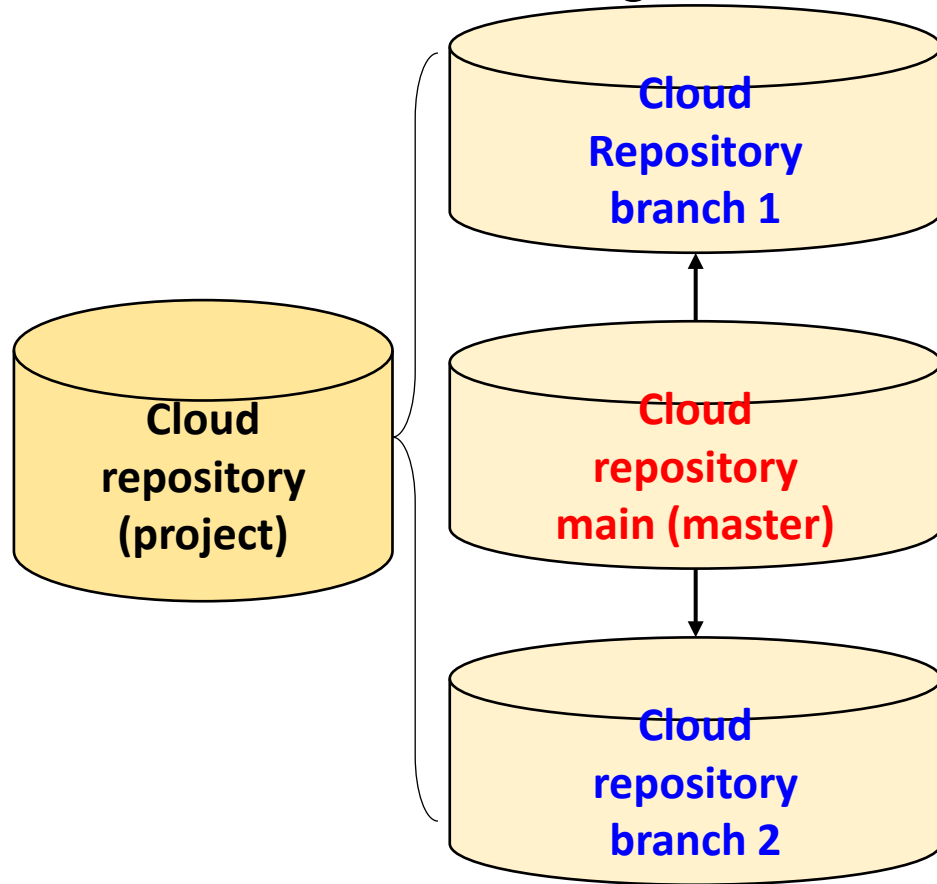
Push

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

Commit: *To create a snapshot of the repository*

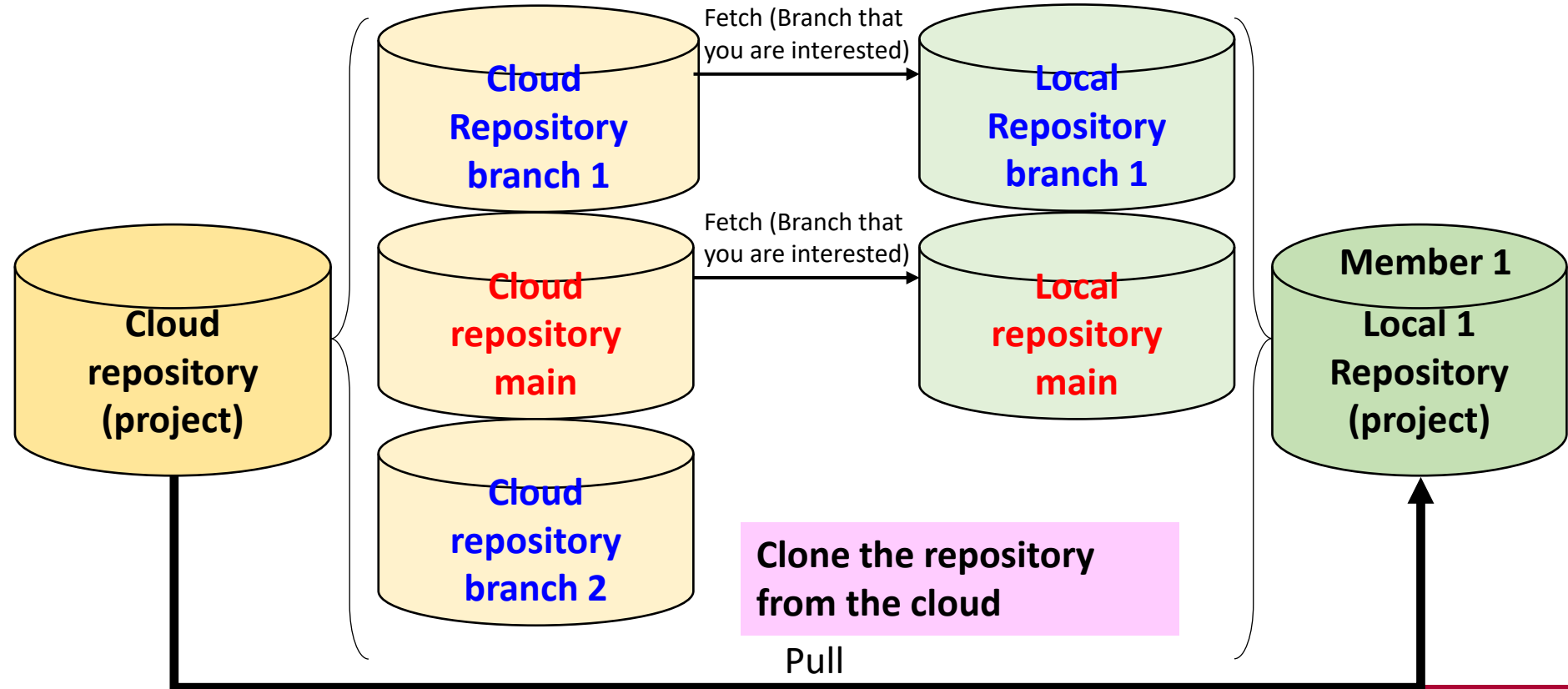
Add (Stage): *To add files or segments in the next commit*

Collaborative coding online – Generate Branch (Member)

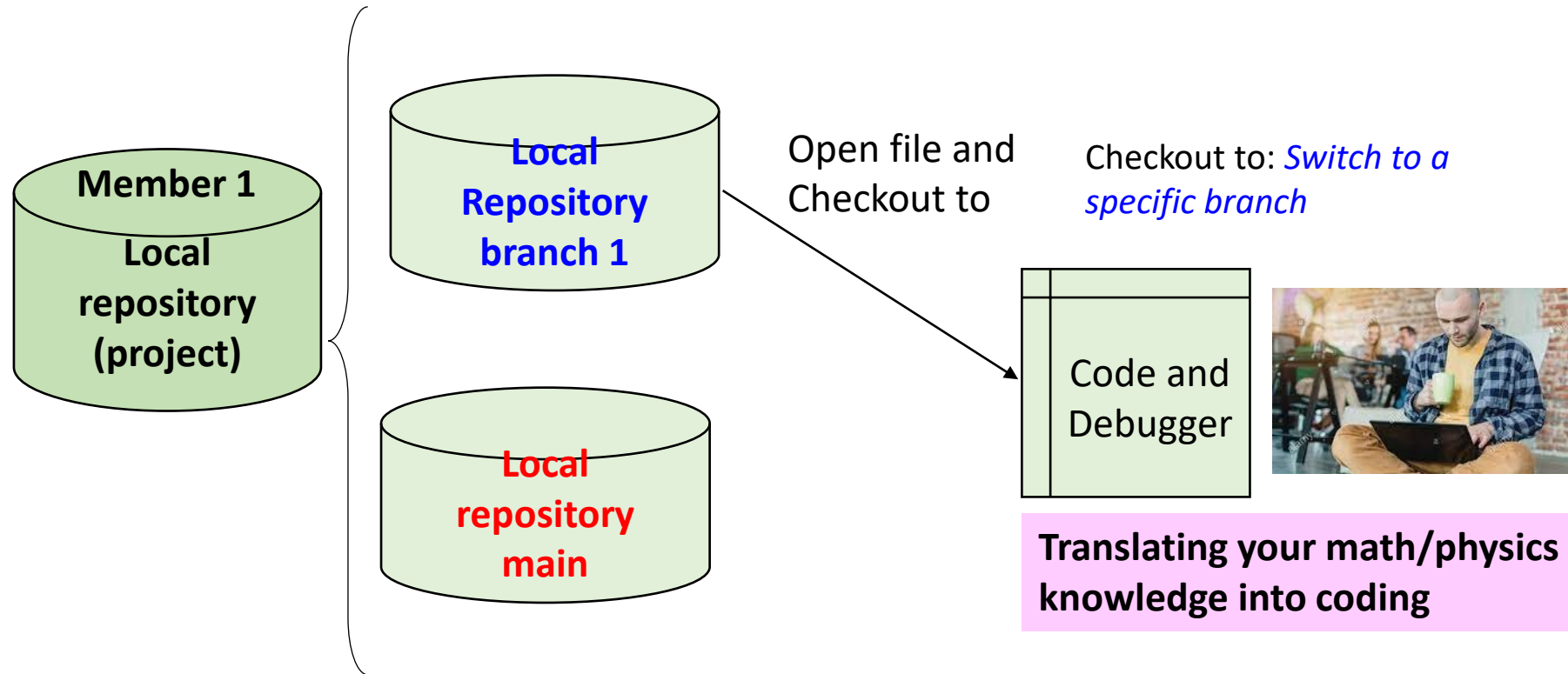


To generate a branch for different member that participant the project, creating a contained area of your repository to develop features, fix bugs and more.

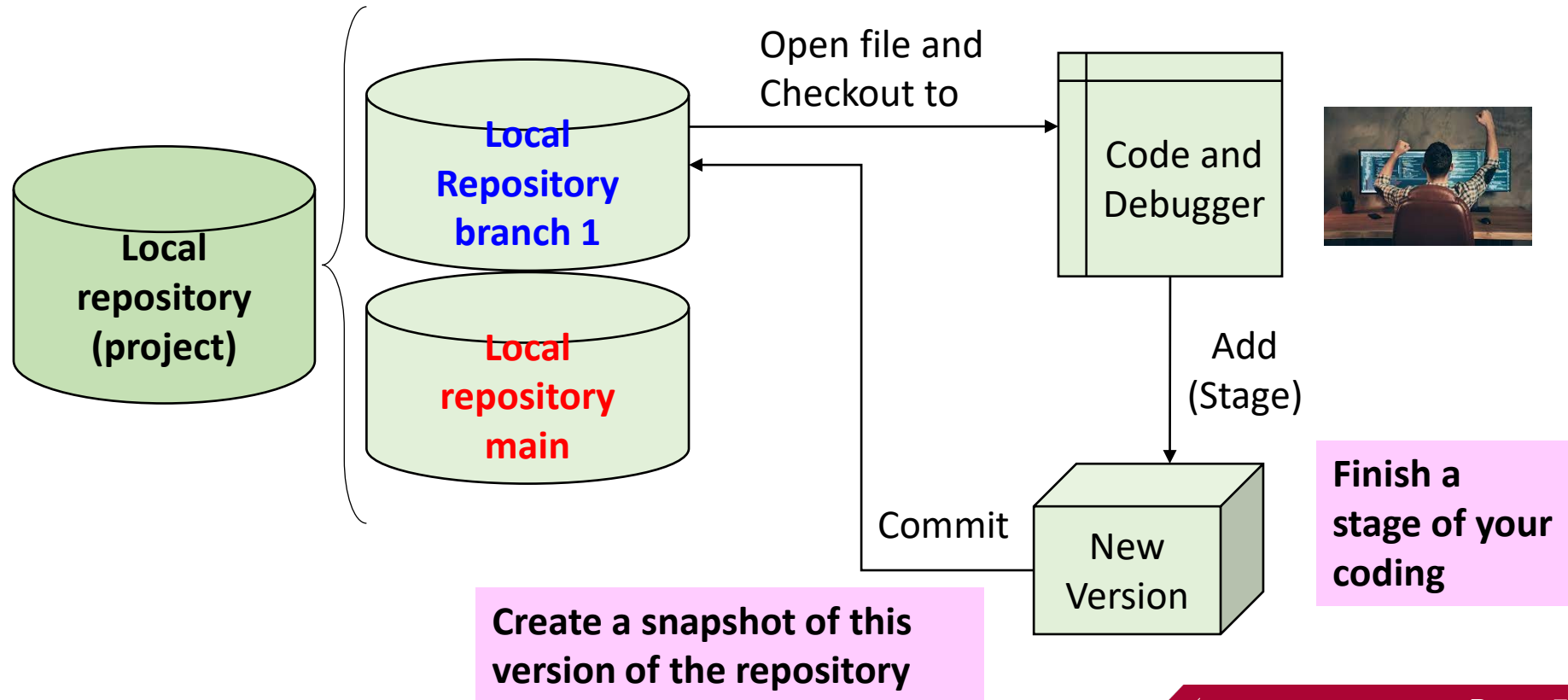
Collaborative coding online – Fetch/Pull Branch from Cloud



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!

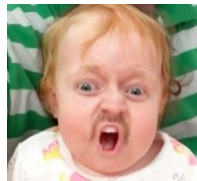
Open file and
Check out to

Let the group
leader knows
my work

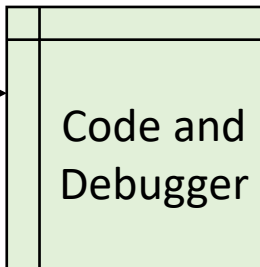
Merge by Pull Request

File 1 in the local

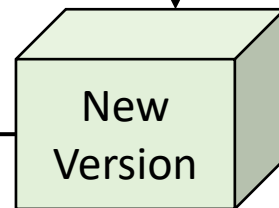
File 1 in the cloud



Commit



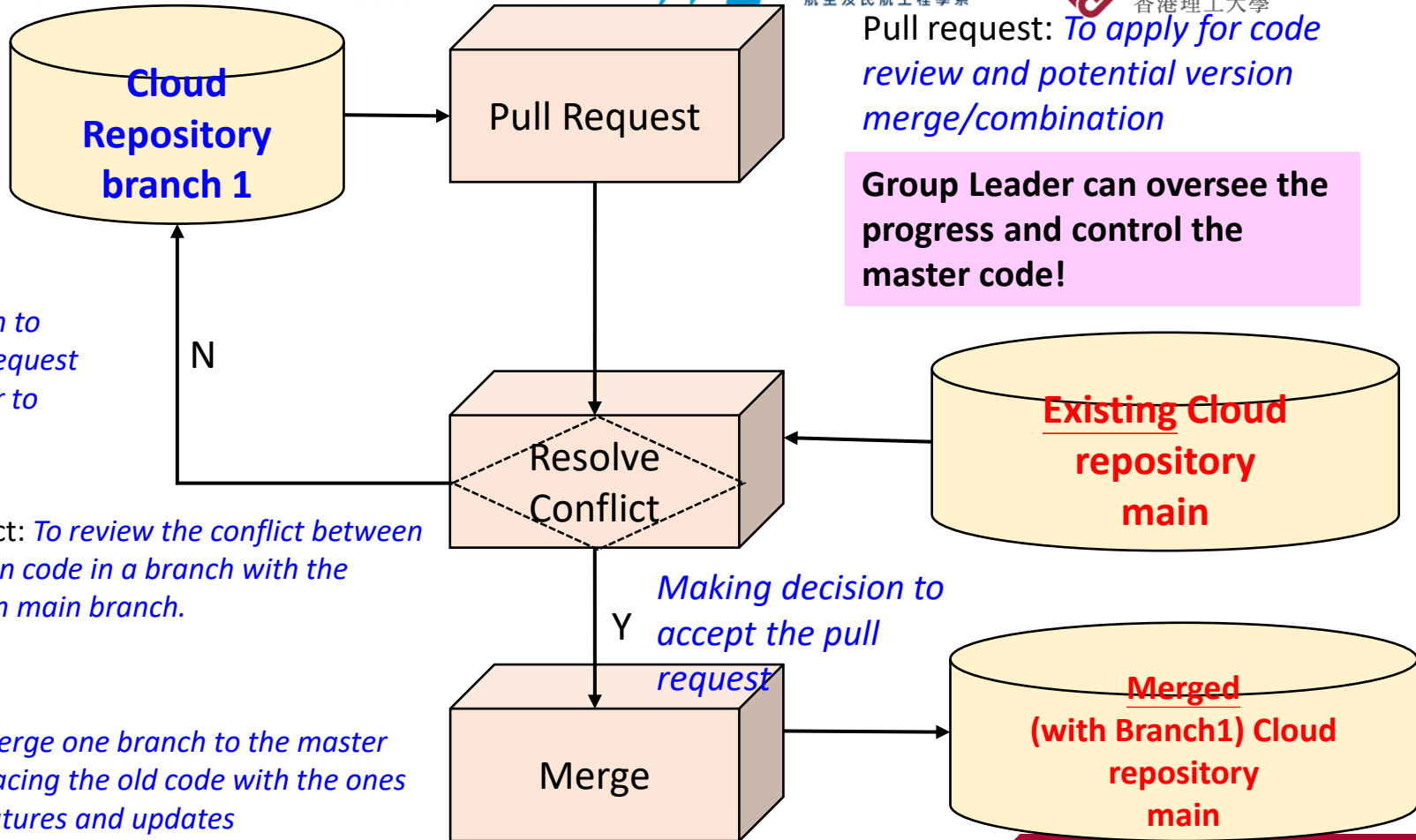
Add
(Stage)



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*

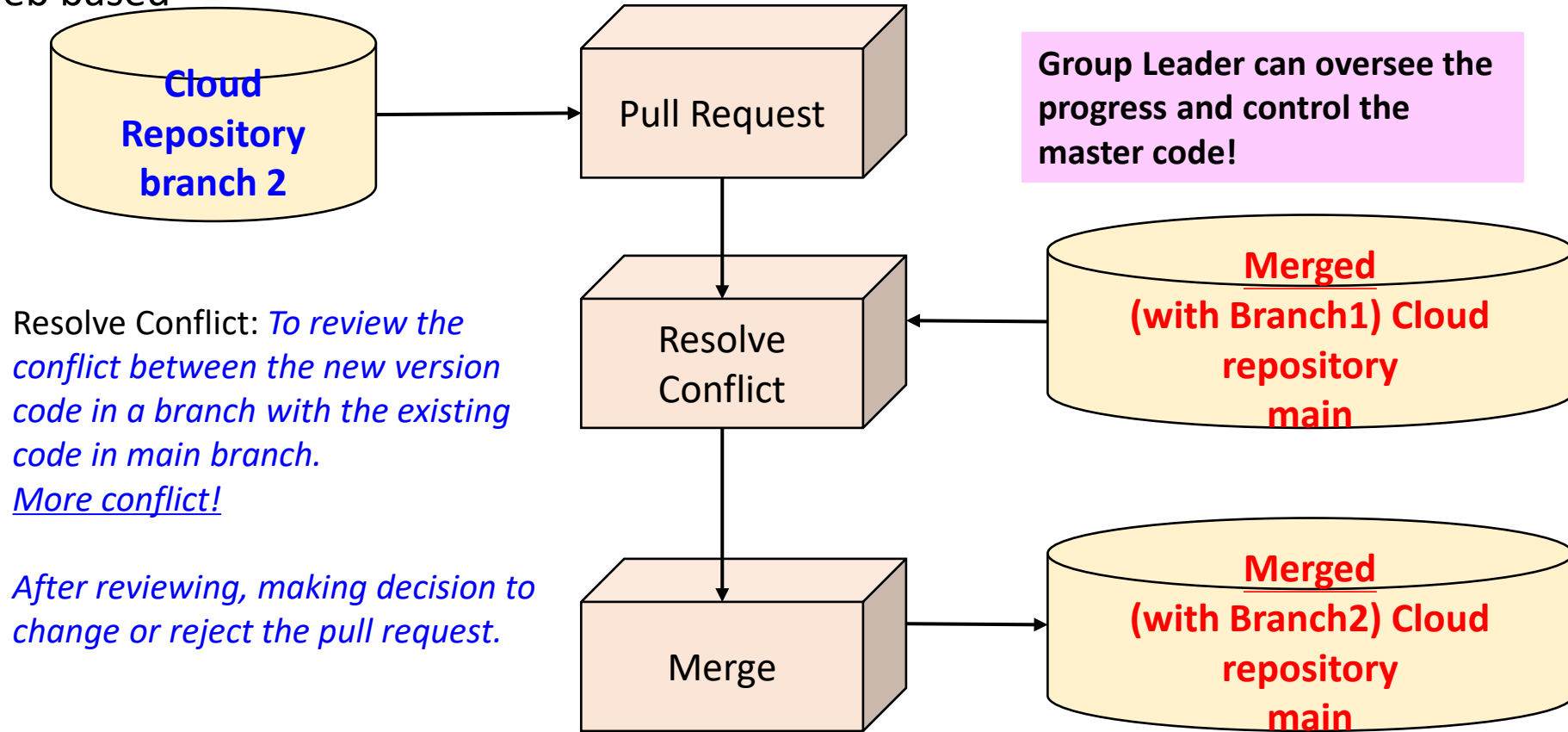
Making decision to reject the pull request ask the member to revise.

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*

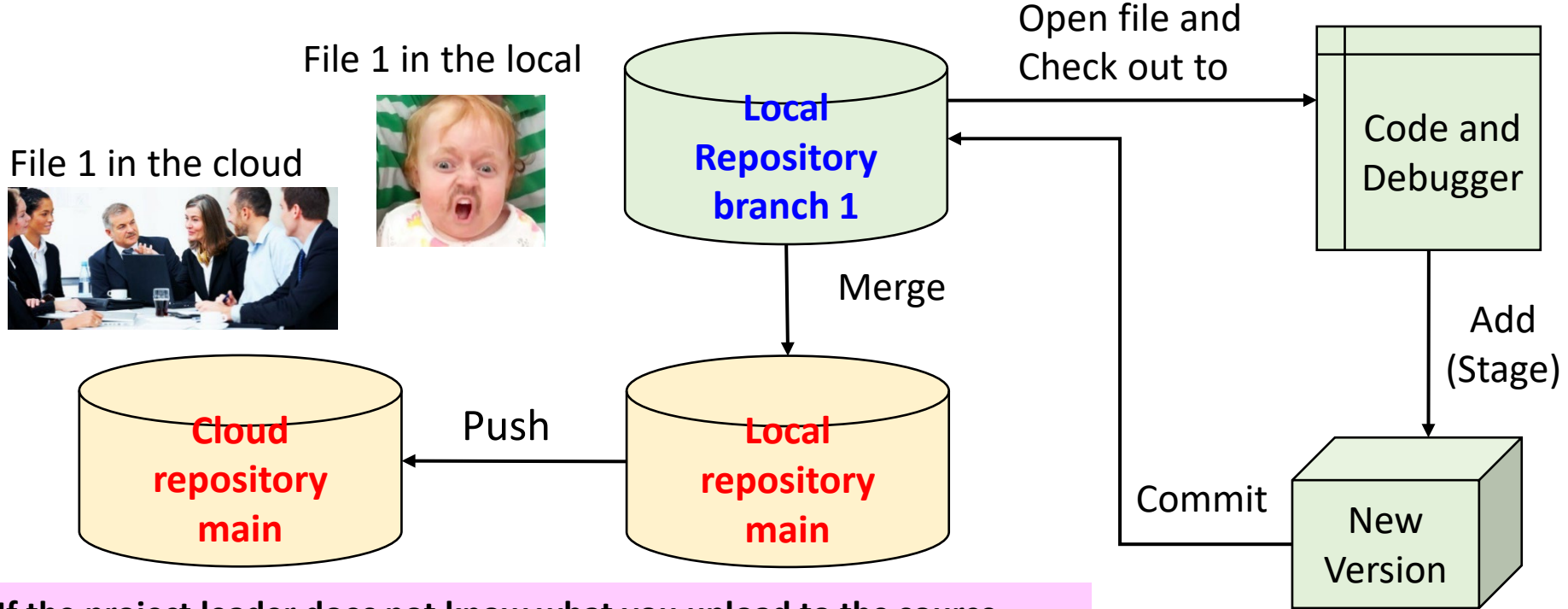
Web based



Concept of collaborative coding online

VS code based

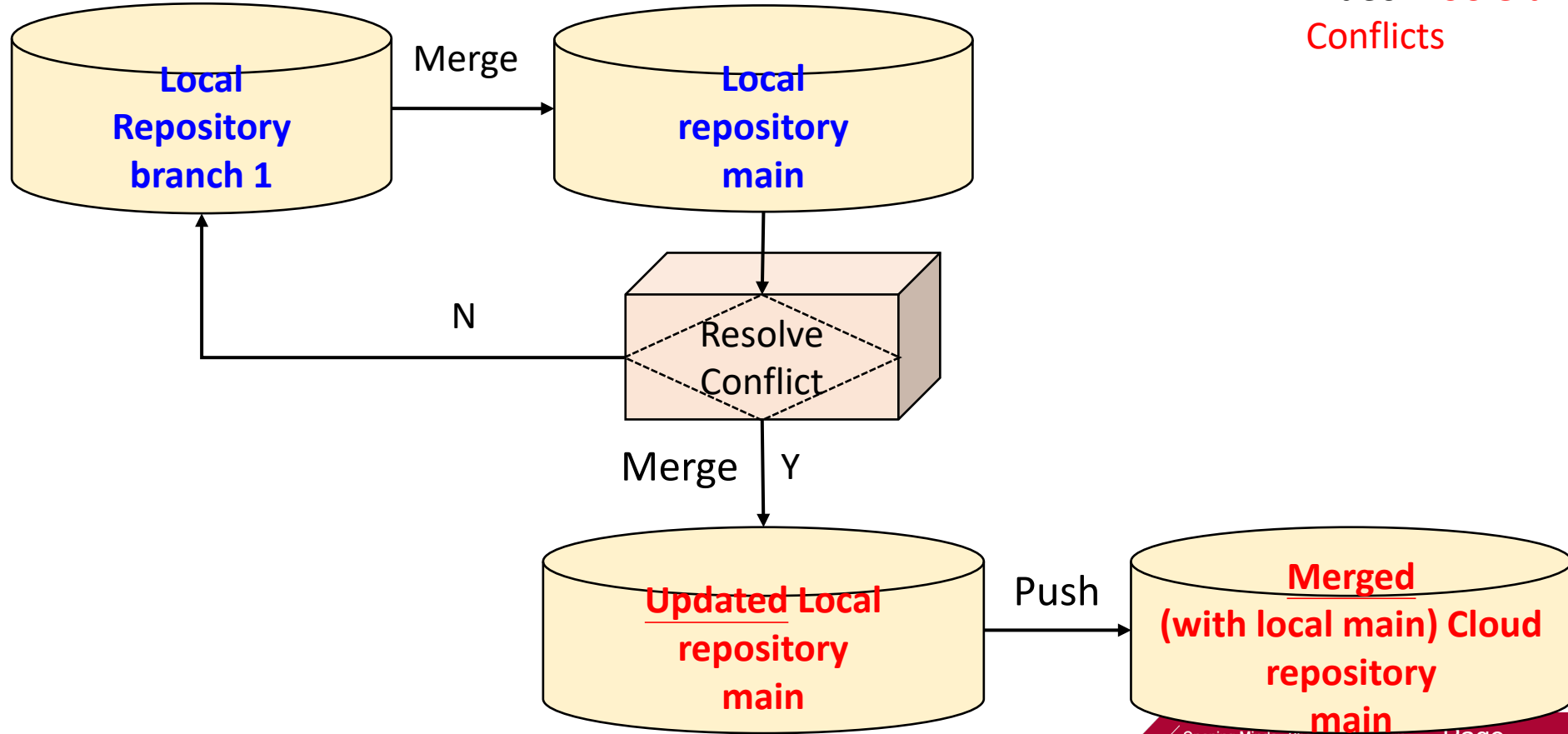
Video: **VSC** **Git**
Conflicts



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

VS code based

Video: **VSC Git
Conflicts**



GitHub Tutorial Videos (Web Version)

- **Signing Up:**
https://www.youtube.com/watch?v=djwgi6YpZWY&ab_channel=POLYUIPNL
- **Group Leader Operations:**
https://www.youtube.com/watch?v=xmy9UaXZqAl&ab_channel=POLYUIPNL
- **Group Member Operations:**
https://www.youtube.com/watch?v=xVtcexks7EA&ab_channel=POLYUIPNL
- **Creating New Repository + Setup:**
https://www.youtube.com/watch?v=fD6x3wborEI&ab_channel=POLYUIPNL
- **Commit & Merge:**
https://www.youtube.com/watch?v=34bSuMcdHP4&ab_channel=POLYUIPNL
- **Commit & Merge (rejected):**
https://www.youtube.com/watch?v=6zPyvGKE804&ab_channel=POLYUIPNL
- **Searching and Downloading:**
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
- **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
- **VSC Git Conflicts:**
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
- **VSC Pushing (No web):**
https://www.youtube.com/watch?v=dSWB5QCUdpE&ab_channel=POLYUIPNL