

# AAE2004 Introduction to Aviation Systems

## AAE

# Design of Path Planning Algorithm for Aircraft Operation

## Introduction to GitHub Collaboration

---

Dr Li-Ta Hsu and Dr Kam Hung NG

Assisted by

Miss Hiu Yi HO (Queenie), Miss Yan Tung LEUNG (Nikki)

# 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	
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
ieee_taes_3dma_rtk (20200622 GH).docx	22/6/2020 2:52 PM	Microsoft Word D...	4,112 KB
ieee_taes_3dma_rtk (20200709 WS).docx	9/7/2020 3:38 PM	Microsoft Word D...	4,294 KB
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
Manuscript_two_columns.docx	13/10/2020 1:45 PM	Microsoft Word D...	4,030 KB
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

Add  
(Stage)

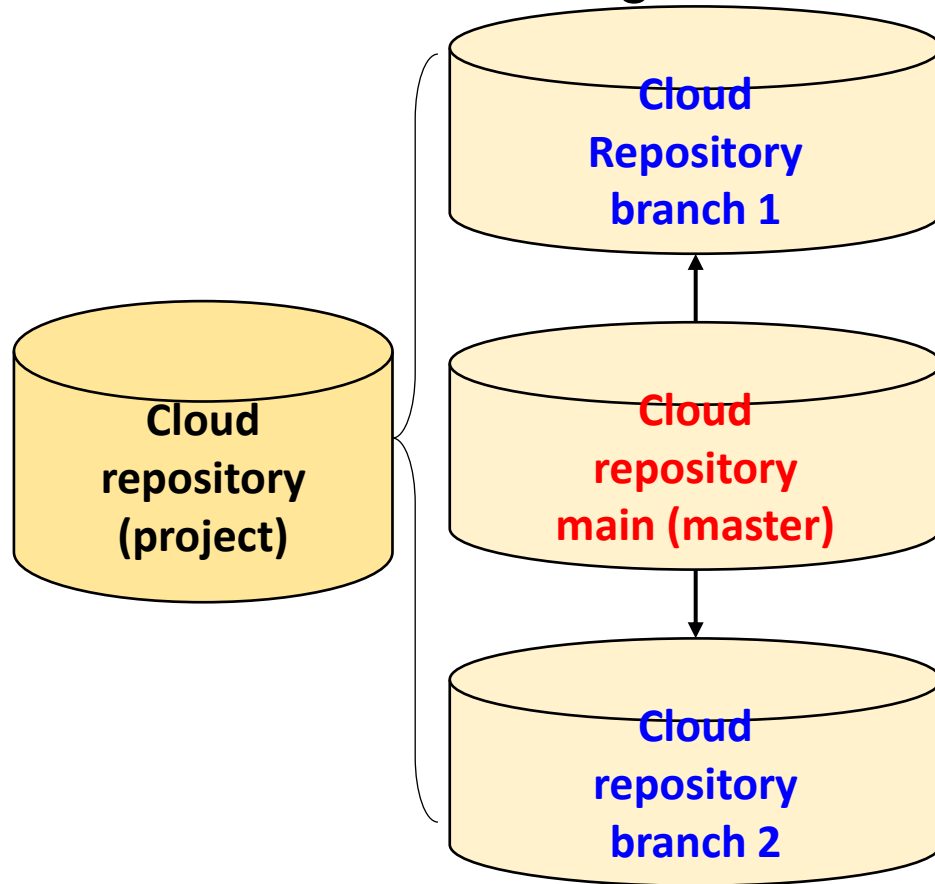
Push

Commit: *To create a  
snapshot of the repository*

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

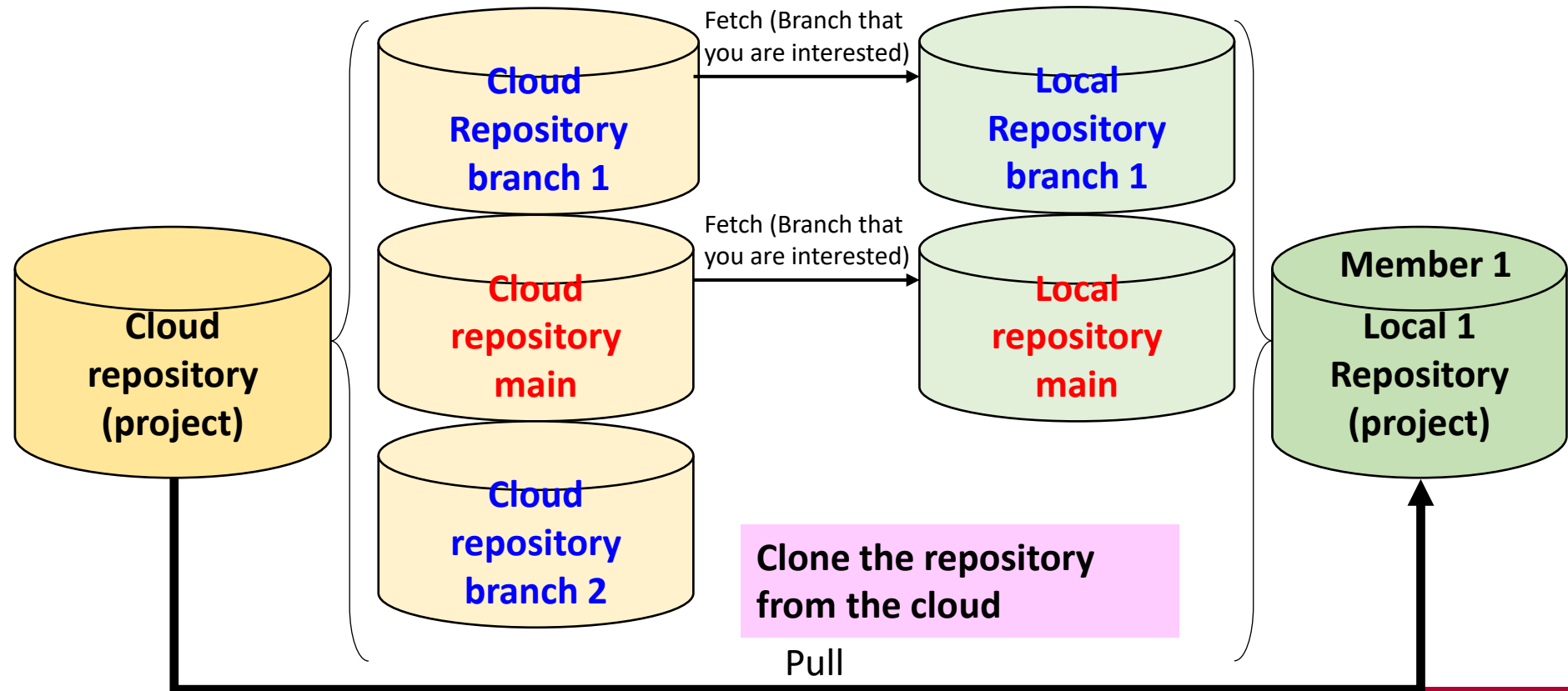
Push: *To upload the commit  
made on a local branch to GitHub*

# Collaborative coding online – Generate Branch (Member)

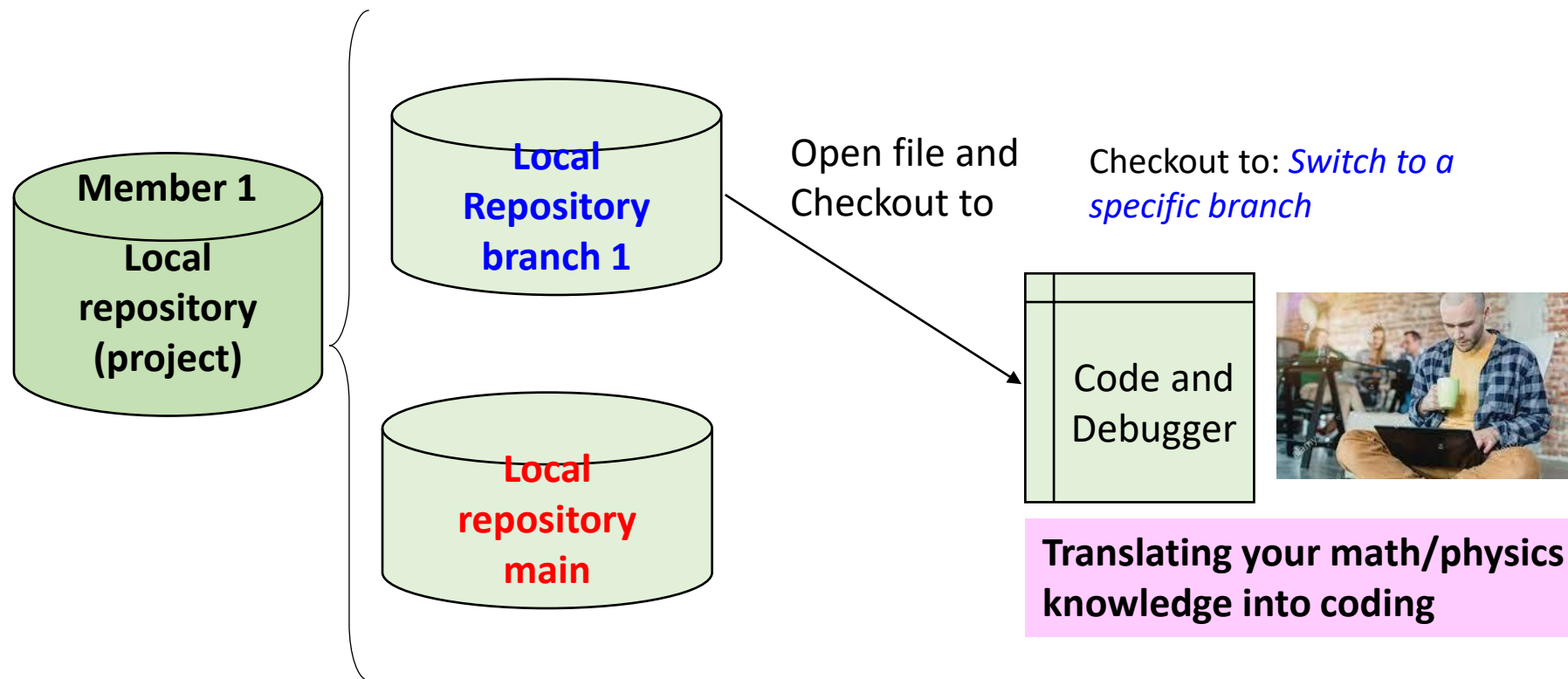


To generate a branch for different member that participant the project, creating a contained area of your repository to develop features, fix bugs and more.

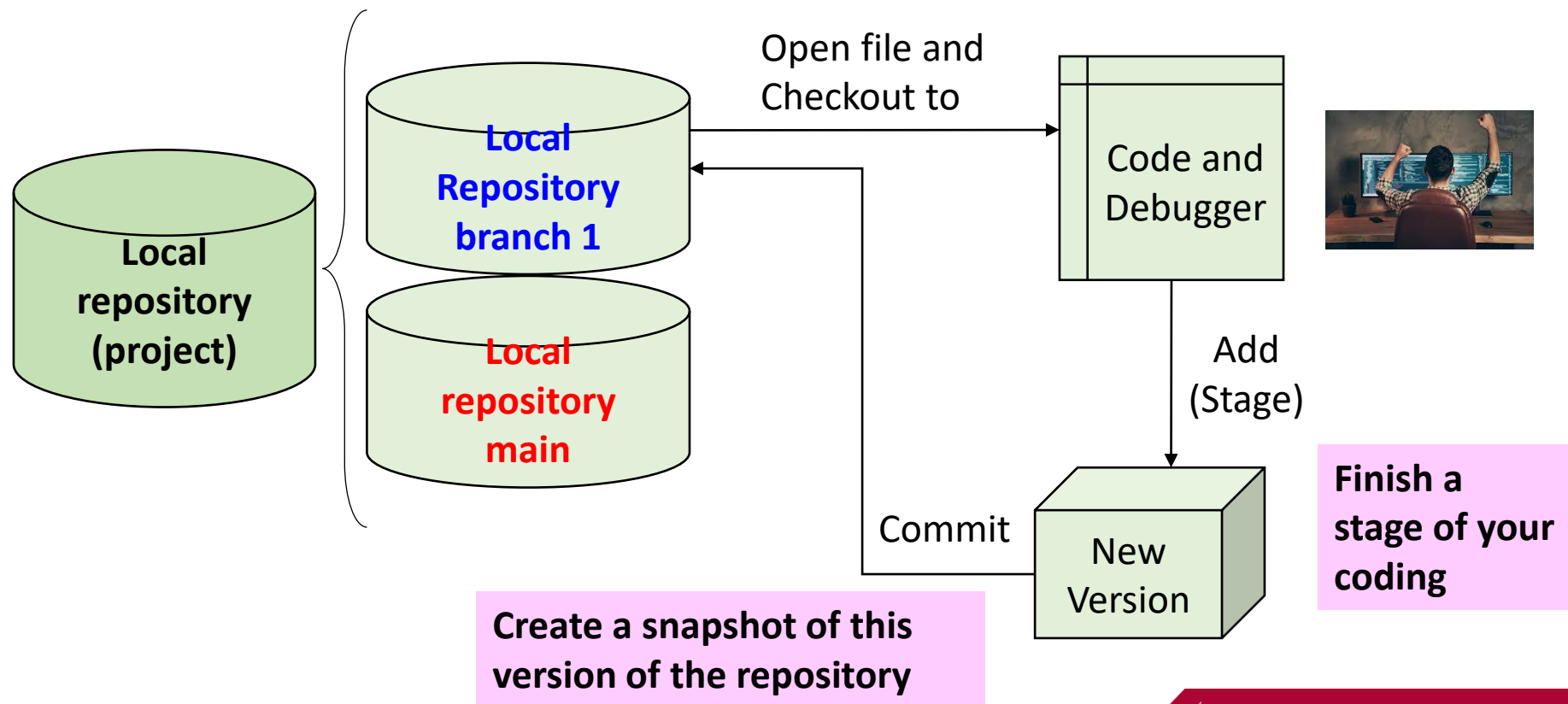
# Collaborative coding online – Fetch/Pull Branch from Cloud



# 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

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

Web based

Ready to update to the cloud branch!

Open file and  
Check out to

Let the group  
leader knows  
my work

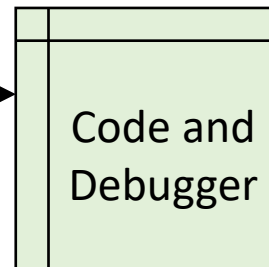
Merge by Pull Request

File 1 in the local

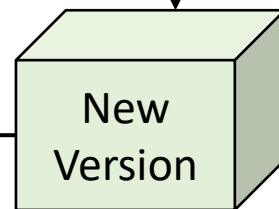
File 1 in the cloud



Commit



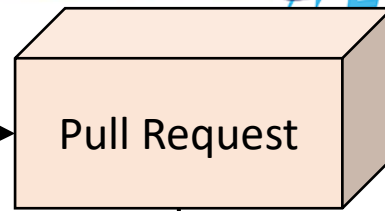
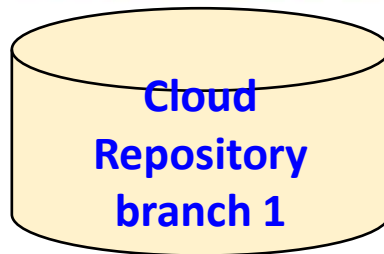
Add  
(Stage)



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



Web based



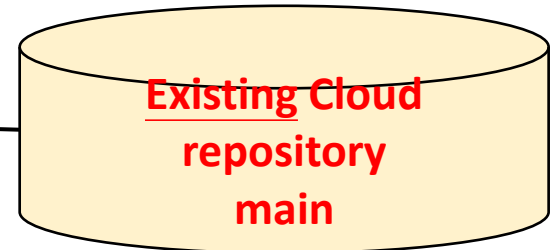
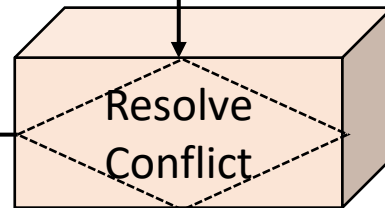
Pull request: *To apply for code review and potential version merge/combination*

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

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

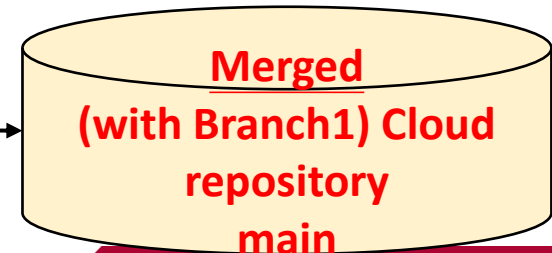
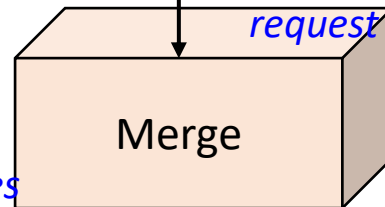
N

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



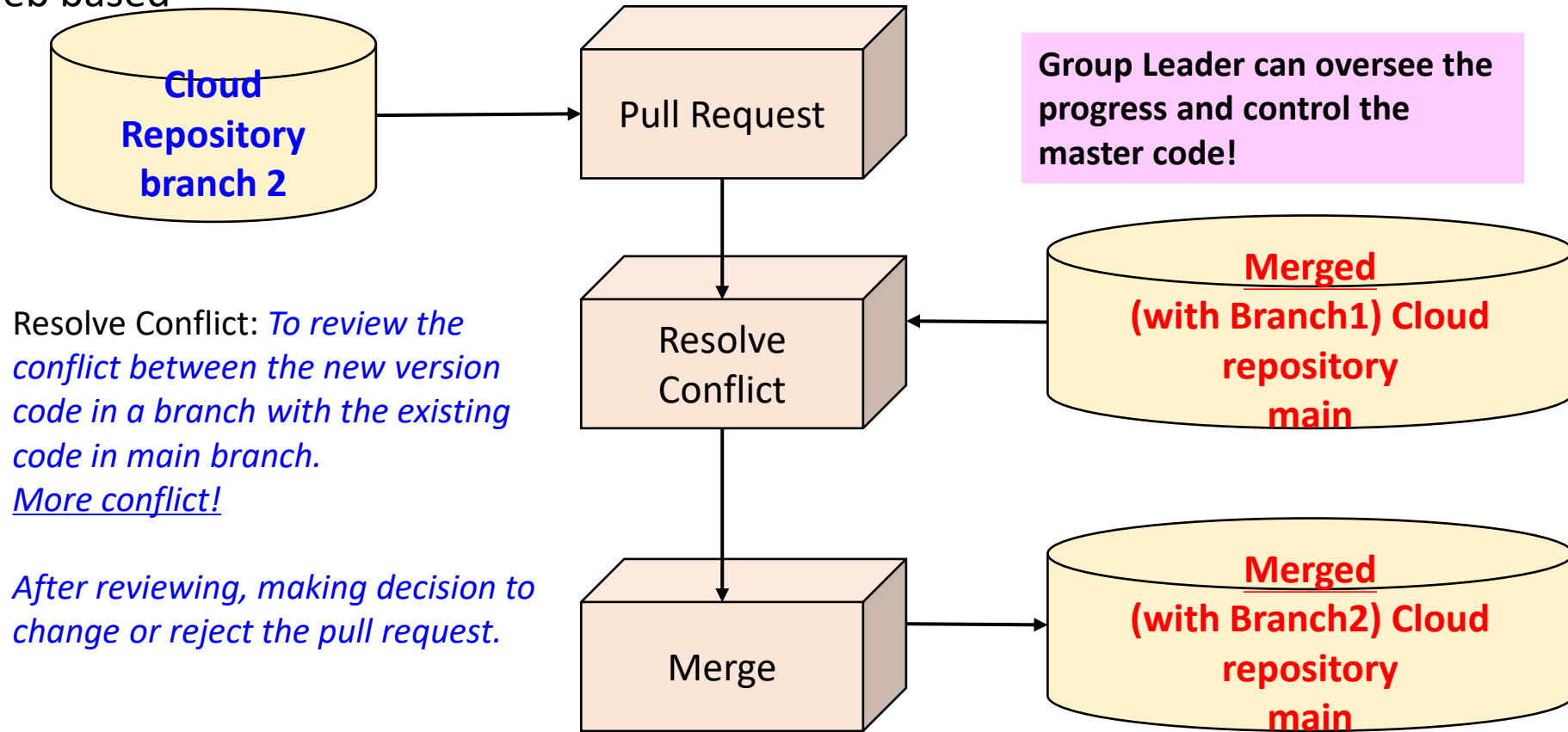
*Making decision to accept the pull request*

Y



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

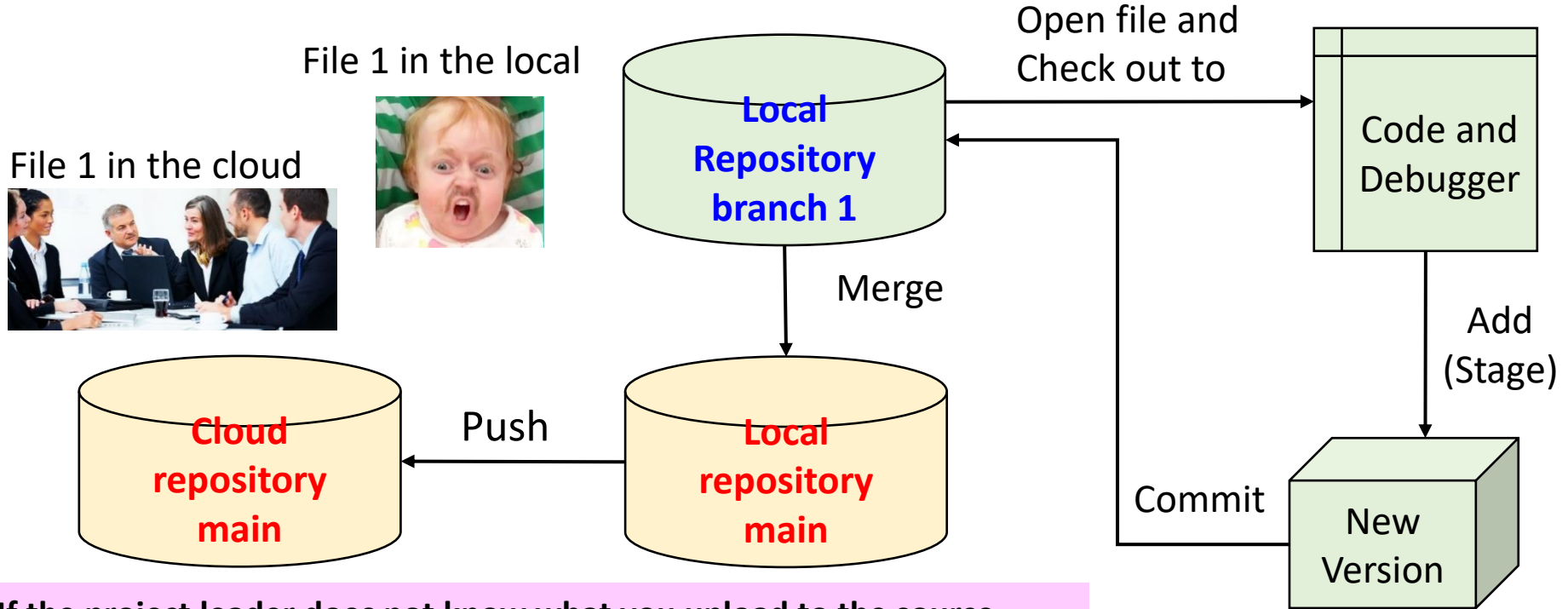
## Web based



# 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**

