

1) we will have user log (log having username and their PK)
new user will add their username and PK to log and make PR.
The bot will verify and accept the PR. after which PR will be pulled.

2) (I'm BOB) I will send a msg to Alex in this format

Time stamp, convo no
Bob PK
Alex PK
Prev hash
"Encrypted msg using PK_A"
Sign with SK_B

and send this to unverified msg log and follow PR process.

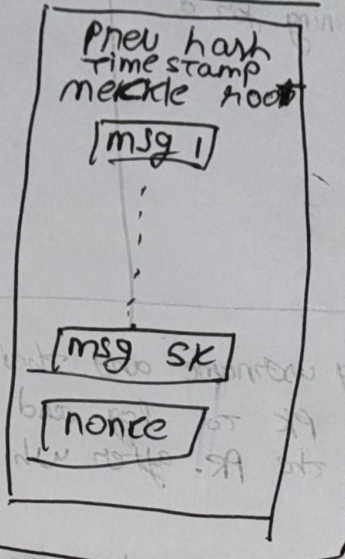
3) Alex's GUI will look for unverified msg in that log. once a msg found, GUI will sign with SK_A and to end of msg, and put it into Announcement log and follow PR process.
only include after verification

4) once nodes retrieve a msg in Announcement log, they will arrange those msg based on timestamp and add it to unfinished Block.
once they got SK msg, they will start mining for target nonce. once found, they will put the Block into Block announcement log. again will do a PR process.

5) when nodes see a Block in Block announcement, they will do ~~chain~~ level management and make their Blockchain and (you ~~do~~ ^{verify} it) add it Blockchain announcement log.

6) The Bot will choose longest and most frequent Block Blockchain and commit it to main Branch.

Block structure



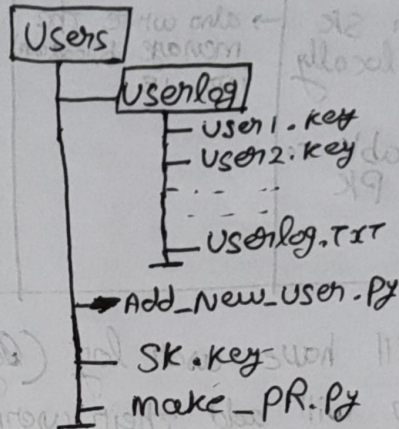
once the py prog is runned, it won't run again

PRV 2

have log for count of conv has with the

1st Division

User Directory structure



□ ← Distric
Normal ← files
Name
Text

new user py file will check whether given username exists or not if yes it will prompt you for new username if the given name is unique, add the ~~name~~ PK with user

new user py file will check whether given username exists if exists:

check new username

else:

Add PK with username.key format to Userlog

Also Add username to userlog.txt

Add SK with SK.key into Users

once Added, the prog should run make_PR.py which only track Userlog, commit it on new branch and push it.

PR Bot will verify and accept the Pull request

2nd Division

(from unverified log)

logs to maintain

(convo log) → log for convo no

(msg log) → log for msg i send

(msg log) → unverified msg log

will have convo no as key, and we will have msg id for this convo as value. we will also have who sent msg as value

It has key as convo no and value as msg

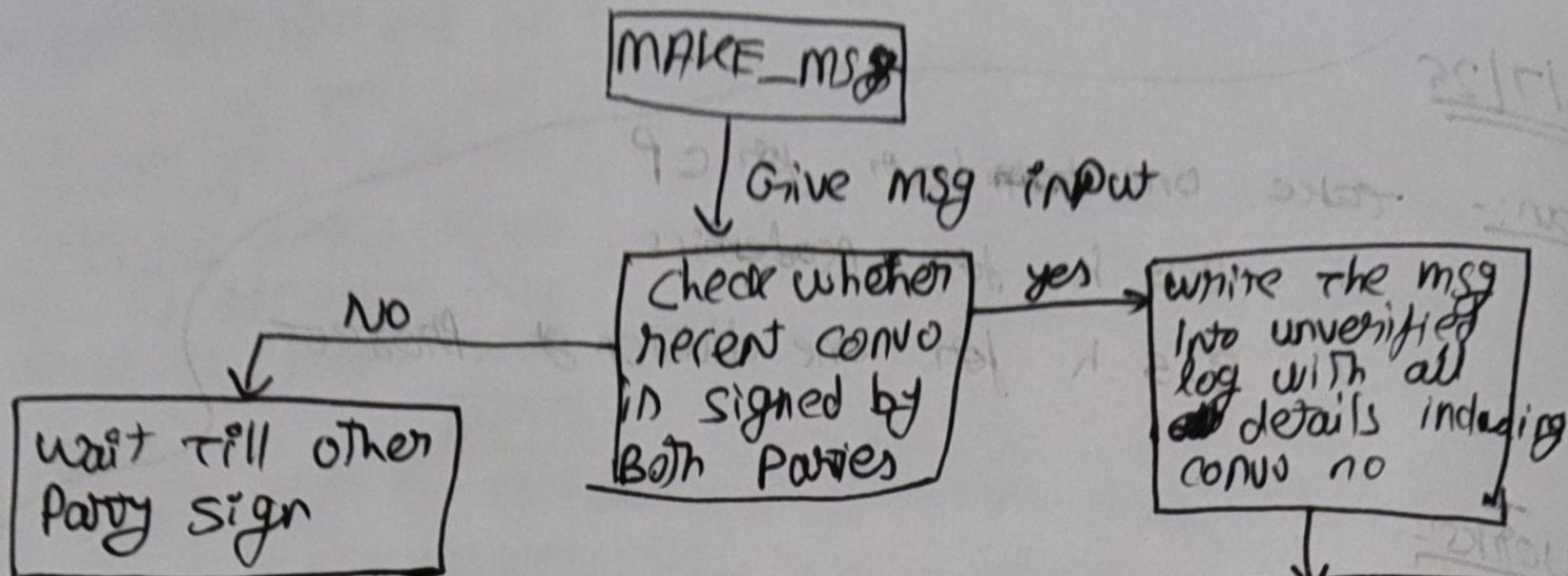
→ whenever we run the script, it will always ask for msg from my end. Also the GUI ~~run~~ run this script when I need to send a msg.

→ After getting my msg as input, it will see what is the convo no of msg and update to my log.
(from convo log)

→ from the convo log, we can get msg id of prev msg. and get its hash from Announcement log.

→ finally msg will be made and updated to msg log. convo log is also updated.

→ note this process won't happen when a user have a unverified message waiting to be signed by other party



→ when other side saw the unverified msg, signed it ~~and~~ and add to Announcements log. ~~It also got added to~~ they update convo log from their side.

→ convo log structure

convo no : [msg ID, sender and rec PK, sender sign, Receiver sign]

Sign = SK ("msg ID" + "sender PK" + "Receiver PK" + "convo no")