

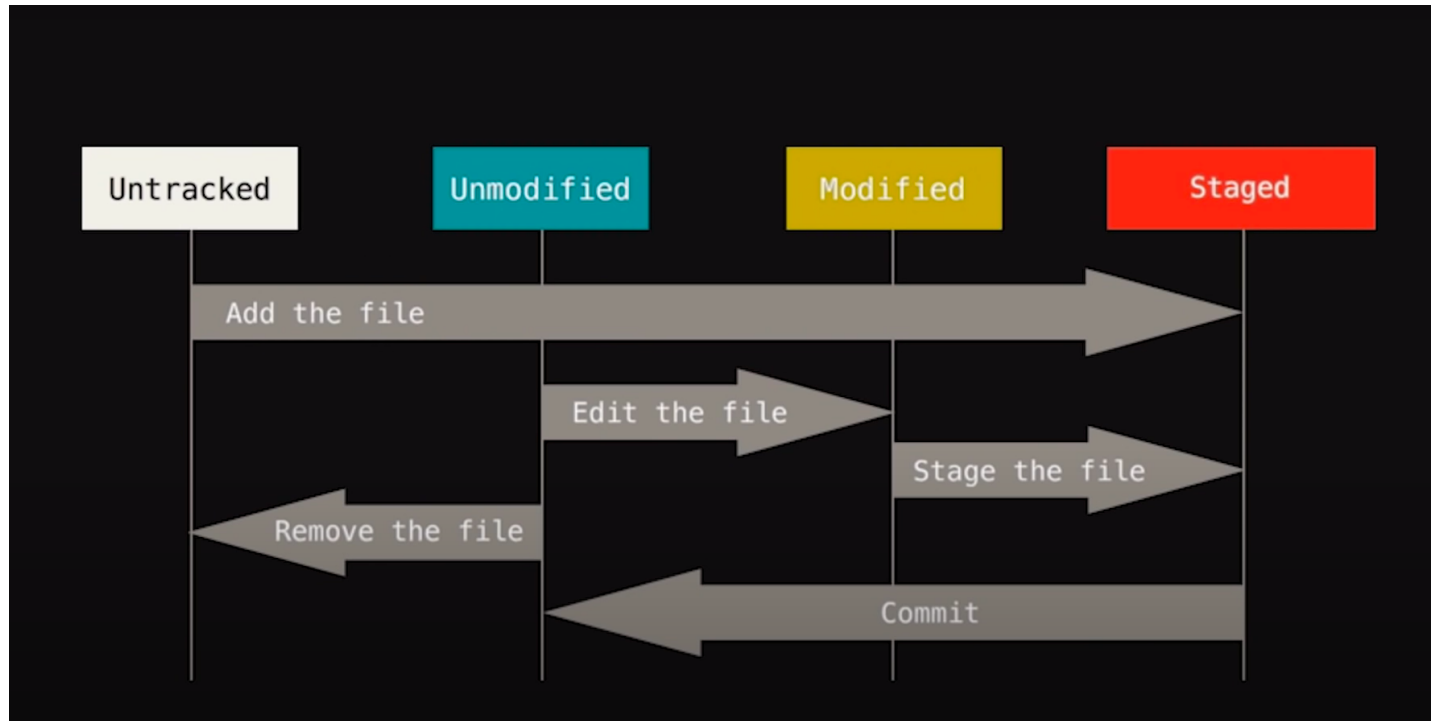
Git & Github

Git is an open-source, version control tool created in 2005 by developers working on the Linux operating system.

GitHub is a company founded in 2008 that makes tools which integrate with git.

```
git --version #check version
git status #Gives info on branch and commit suggestions
```

Git Basics #basics



Staging area is used to decide which files are needed for a snapshot (to be in github repository)

.gitignore

To ignore a file, create `.gitignore` and add the name of the file in it In `.gitignore` file -

```
/mylogs.log
*.log
ignore/
```

ignore file in the same root folder as `.gitignore` ignore all log files ignore `ignore` folder, `/` represents a folder

Git config

```
git config --global user.email #set email
git config --global user.name #set name
git config --global --list # list configurations
```

Git init

```
git init # initializing empty repository (Go to the folder which is to be made a repository)
```

Git add

```
git add <file_name> #Adding a file to staging area
git add -A #All file to staging area
```

After modify you have to again write `git add <file_name>` to add that file to staging area

Git commit

```
git commit #commit files to git(Get a snapshot of files)
git commit -m "<message>" #add a commit message
git commit -a -m "<message>" #commit all files(only works when file are first added using git add)
```

Git restore(sometimes called git checkout)

```
git restore <file_name> #Used to get the previous version of a file in the working directory (replace working file with staged file)
git restore -W <folder_name> #restore the specified working directory with staged are
git restore -f
```

Git log

```
git log #see all the commits made
git log -p -<no_of_commits> # see specific number of commit
```

Git diff

```
git diff #compares the working area with staging area
git diff --staged #compares staging area with commit
```

Git rm

```
git rm <file_name> #removes the file from working as staging area
git rm --cached <file_name> #removes file only from the staging area, does not remove file from working area
```

Git status

```
git status -s #detailed status
```

```
Haris@DESKTOP-RN53EBB MINGW64 ~/Desktop/Git In One Video (master)
$ git status -s
M  contact.html
M  index.html
M  monuments.html

Haris@DESKTOP-RN53EBB MINGW64 ~/Desktop/Git In One Video (master)
$ git status -s
MM contact.html
M  index.html
M  monuments.html

Haris@DESKTOP-RN53EBB MINGW64 ~/Desktop/Git In One Video (master)
$ git add contact.html

Haris@DESKTOP-RN53EBB MINGW64 ~/Desktop/Git In One Video (master)
$ git status -s
M  contact.html
M  index.html
M  monuments.html
```

green M indicates file modified in staging

are red M indicates file modified in working area

Git branch

```
git branch # show current branch
```

Git checkout

```
git checkout <branch> #change branch
git checkout -b <branch> #create and change branch
```

Git remote

```
git remote set-url <variable_name> <ssh_url> # set remote url

git remote -v #see remote url
```

Setting up ssh-agent for no passphrase

```
eval "$(ssh-agent -s)" # start ssh-agent
ssh-add ~/.ssh/id_ed25519 # add ssh key -> add passphrase
git push <push_repo> <local_repo>

# close ssh-agent after use
eval "$(ssh-agent -k)"
```

Git pull

- Similar to git clone
- Can be run multiple times

Forks and Pull Requests

Basic Steps to upload an folder to github

```
# Existing local repo
git init
git remote -v # check for fetch and push locations
git remote add <name_url_branch> <url> # ssh url for the repo
git pull <name_url> --allow-unrelated-histories <name_url_branch> <local_branch>
git branch #info on local branch
git push -u <name_url_branch> <local_branch> #push files to <name_url_branch> repository within github
```

Info

Pull is required before push

Schedule of Events of JoSAA-2020 (ONLINE REPORTING)

Date	Time (IST)	Event
By Sep 11, 2020		Joint Apex Board declares JEE (Main) 2020 Ranks
Oct 5, 2020		Announcement of JEE (Advanced) 2020 Result
Oct 6, 2020	10:00	Candidate registration/choice filling for academic programs under JoSAA STARTS; candidates who qualify AAT can fill their AAT-specific choices starting from Oct 11, 2020 after declaration of AAT result
Oct 12, 2020	10:00	Display of Mock Seat Allocation-1 based on the choices filled-in by candidates as on Oct 11, 2020, 17:00 IST
Oct 14, 2020	10:00	Display of Mock Seat Allocation-2 based on the choices filled-in by candidates as on Oct 13, 2020, 17:00 IST
Oct 15, 2020	17:00	Candidate registration and choice filling for academic programs under JoSAA ENDS
Oct 16, 2020		Reconciliation of data, verification and validation of allocated seats
Oct 17, 2020	10:00	Seat Allocation (Round 1)
Oct 17, 2020 – Oct 19, 2020	By 17:00, Oct 19, 2020	Online reporting: fee payment / document upload / response by candidate to query (if required) (Round 1)
Oct 20, 2020	By 17:00	Last day to respond to query (Round 1)
Oct 21, 2020	10:00	Display of seats filled / availability status
	17:00	Seat Allocation (Round 2)
Oct 22, 2020 and Oct 23, 2020	By 17:00, Oct 23, 2020	Online reporting: fee payment / document upload / response by candidate to query (if required) (Round 2)
Oct 24, 2020	By 17:00	Last day to respond to query (Round 2)
Oct 22 – Oct 24, 2020	By 17:00, Oct 24, 2020	Withdrawal of seat / Exit from seat allocation process (Round 2)
Oct 26, 2020	10:00	Display of seats filled / availability status
	17:00	Seat Allocation (Round 3)
Oct 27, 2020 – Oct 28, 2020	By 17:00, Oct 28, 2020	Online reporting: fee payment / document upload / response by candidate to query (if required) (Round 3)
Oct 29, 2020	By 17:00	Last day to respond to query (Round 3)
Oct 27 – Oct 29, 2020	By 17:00, Oct 29, 2020	Withdrawal of seat / Exit from seat allocation process (Round 3)
Oct 30, 2020	10:00	Display of seats filled / availability status
	17:00	Seat Allocation (Round 4)
Oct 31, 2020 – Nov 1, 2020	By 17:00, Nov 1, 2020	Online reporting: fee payment / document upload / response by candidate to query (if required) (Round 4)
Nov 2, 2020	By 17:00	Last day to respond to query (Round 4)
Oct 31 – Nov 2, 2020	By 17:00, Nov 2, 2020	Withdrawal of seat / Exit from seat allocation process (Round 4)
Nov 3, 2020	10:00	Display of seats filled / availability status
	17:00	Seat Allocation (Round 5)
Nov 4 – Nov 5, 2020	By 17:00, Nov 5, 2020	Online reporting: fee payment / document upload / response by candidate to query (if required) (Round 5)
Nov 6, 2020	By 17:00	Last day to respond to query (Round 5)
	By 20:00	Notification of the decision on seat confirmation for Round 5
Nov 4 – Nov 6, 2020	By 24:00	Withdrawal of seat / Exit from seat allocation process. LAST ROUND FOR SEAT WITHDRAWAL / EXIT OPTION (Round 5)
Nov 7, 2020	10:00	Display of seats filled / availability status
	17:00	Seat Allocation (Round 6: FINAL ROUND for IITs)
Nov 8, 2020	By 17:00, Nov 8, 2020	Online reporting: fee payment / document upload / response by candidate to query (if required) (Round 6) (For IITs only: Reporting may also be done at admitting IIT). FINAL ROUND for IITs
Nov 9, 2020	By 17:00	Last day to respond to query (Round 6) (FINAL ROUND for IITs)
Nov 9-13, 2020 (for NIT+ system)	By 17:00, Nov 12, 2020	Admission Process: Document verification for acceptance of seat or withdrawal of seat by physical mode at Admitting/Allotted Institutes ONLY (Round 6) (For NIT+ system). In case, the situation does not permit the physical presence of candidate at admitting Institute the above process will be done online.

Document verification and resolution of query responses by IITs/NIT+ Institutes will proceed in parallel in each round.

1. JoSAA-2020 Registration process is mandatory for any qualified candidate interested in joining any of the IITs, NITs, IIITs (Triple-I-Ts) and Other-GFTIs (within the purview of JoSAA-2020). The process of registration requires candidates to reconfirm a few basic details, viz. gender, state code of eligibility and nationality, and provide their contact details.
2. To accept allotted seats (and continue to be a part of JoSAA-2020 till the final round of seat allocation), candidates must upload ALL required documents and MUST pay seat acceptance fee as per the details provided at <http://josaa.nic.in>.
3. The number of days and time available for document upload, query response and verification for seat acceptance in various rounds will be strictly adhered to. Candidates are advised to keep visiting <http://josaa.nic.in> for regular updates on schedule of events in case of unexpected situations.
4. Candidate whose seat has been confirmed by JoSAA can Withdraw from the seat allocation process starting from the 2nd round and up to the 5th round of seat allocation before the last round of seat allocation (i.e., no Withdrawal will be allowed after 6th November 2020).
5. Candidates who have not been allocated any seat by JoSAA can Exit from the seat allocation process starting from the 2nd round and up to the 5th round of seat allocation before the last round of seat allocation (i.e., no Exit will be allowed after 6th November 2020).
6. (Only for IITs) Candidates who are allotted a seat for the first time in the 6th (FINAL) round of seat allocation may do the document verification and deposit of fees at the time of registration at the admitting IIT.
7. (Only for NIT+ System) Normally physical reporting at admitting institutes is mandatory for students who have accepted a seat in NITs, IIITs (Triple-I-Ts) and Other-GFTIs immediately after 6th round of seat allocation. In case, the situation does not permit the physical presence of candidate at admitting Institute the above process will be done online (for further details visit CSAB website <http://www.csab.nic.in>).
8. Details regarding beginning of academic sessions at IITs, NITs, IIITs (Triple-I-Ts) and Other-GFTIs will be available along with other Institutional information (e.g., fee structure etc.) at <http://josaa.nic.in>.
9. Delays or disruptions in service due to breakdown of JoSAA computer servers [due to reasons beyond the control of JoSAA-2020] shall be rectified as early as possible and notified on the web (jeeadv.ac.in OR <http://josaa.nic.in>). The decisions of JoSAA-2020 in this regard shall be final and binding.