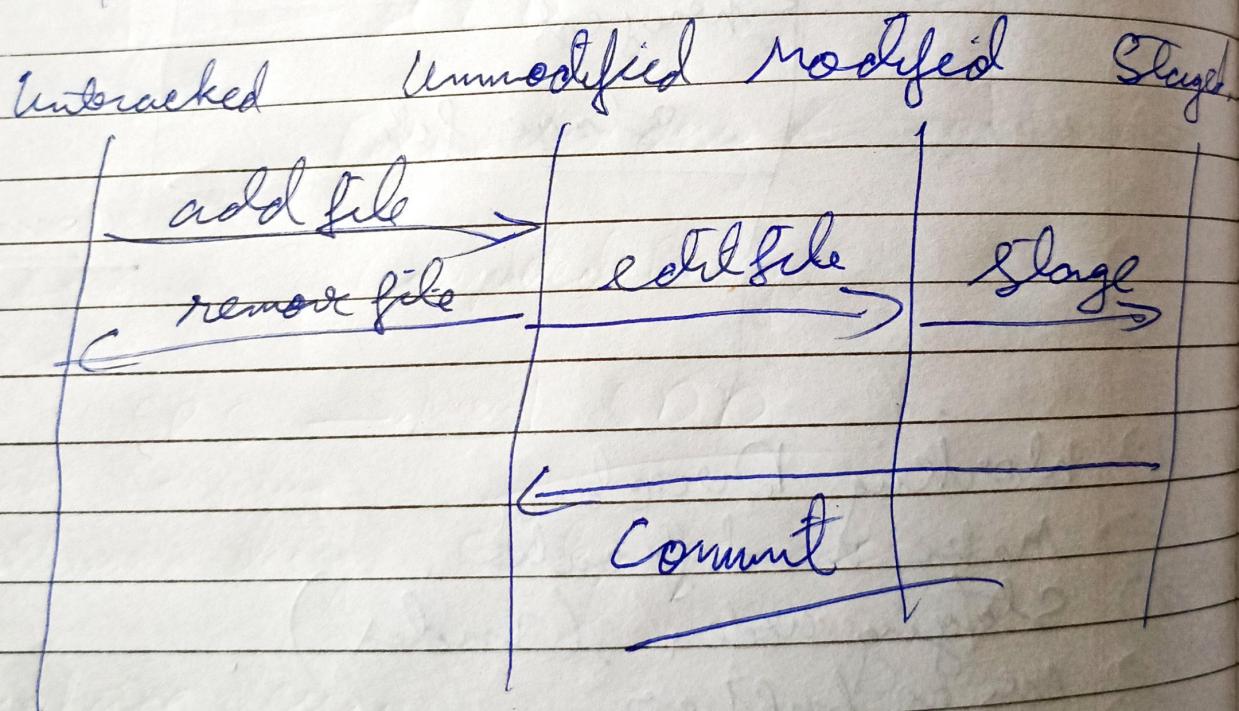
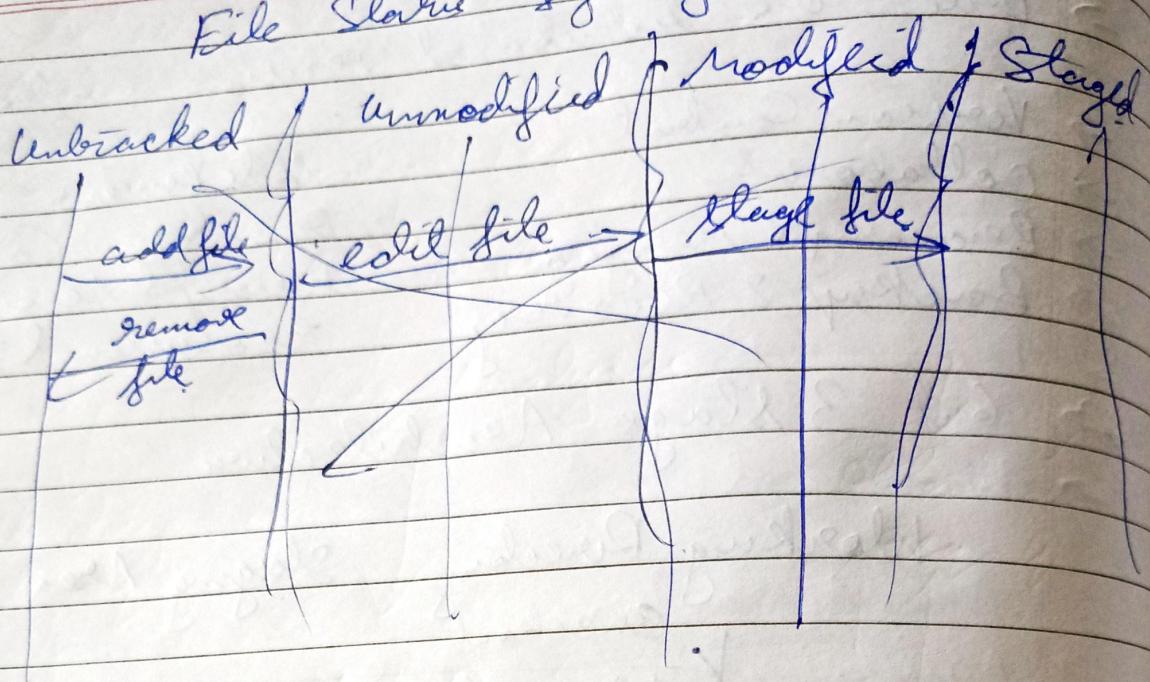


## File Status Life Cycle

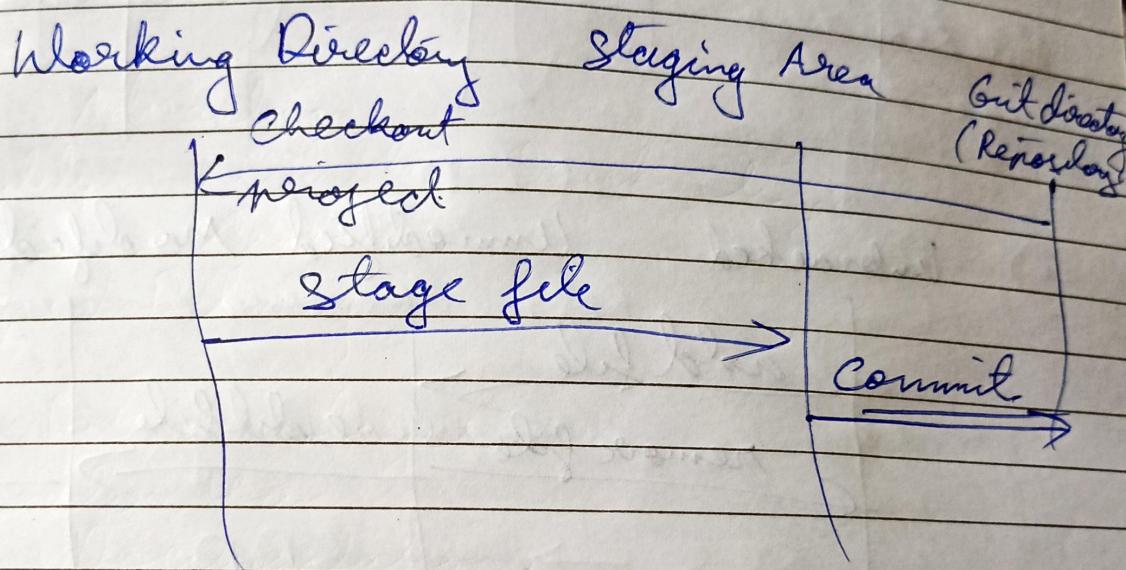


Git :-

- Free & OS distributed version control system
- Version Control
- Collaborate
- Branching & Merging
- Backup & Recovery

Code Review  
Open Source Community  
History & Accountability  
Ecosystem & Tools

### \*.) Git 3 Stage Architecture.



### 1.) Working Directory.

→ Make modifications.

### 2.) Staging area (Index).

→ Acts as buffer.

→ holds changes to commit.

### 3.) Repo

→ Complete history of project, including all commits

## Software Requirement :-

- \* ) Functional & Non-Functional requirement:-
- \* ) Requirement, which are related to functional / working aspect of software fall in category.  
Cats:- Great.
- \* ) Non-Functional  
→ Expected characteristics of target software (Security, Storage, Configuration, Performance, Cost, Flexibility, Disaster, Accessibility).

## SRS:-

- Description of software system to be developed
- It lays out of functional & non-functional requirement.
- Set of use cases that describe user interaction that software must provide to the user for perfect a interaction.

## DFD (Bubble Chart)

- \* ) Graphical tool useful for communicating with users, managers & other personnel.
- Focus on movement of Data b/w external entities
- Simple technique

## 1) Scrum Model

- Most popular agile.
- lightweight, iterative & incremental
- Breaks development stages ~~into~~ into sprints
- Development time for each sprint is maximum
- Scrum team has scrum master & product owner with constant communication on daily basis.
- Backlog, sprint, Daily Scrum, Scrum master, Product Owner (Client),

### Advantages:

- Freedom & Adaptation
- High Quality, low-risk product
- Reduce dev. time by 40%.
- Scrum customer satisfaction is very import.
- Review current sprint before moving to new one.

### \* Disadvantage:-

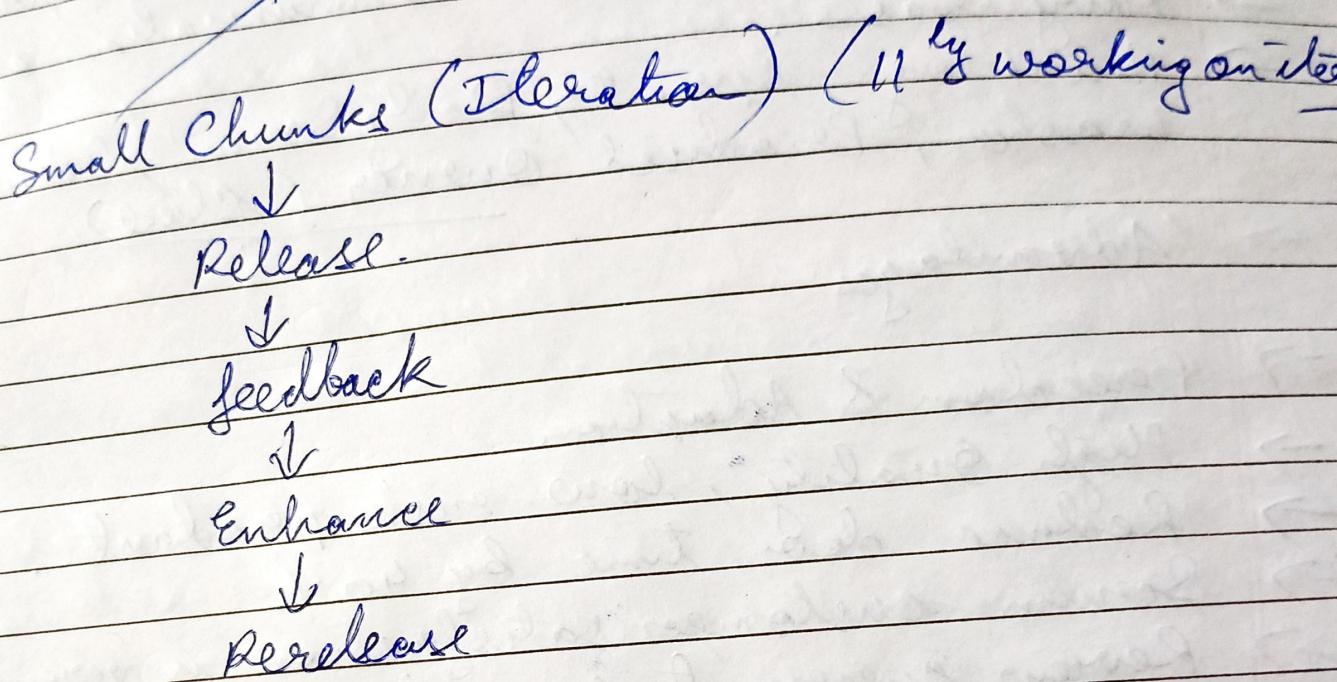
- Efficient for small size.
- No change in sprint.

S.E.

\*7

Scrum Model  
Agile: ( move quickly )

Large Projects :-



Advantages :-

- Frequent delivery
- Face to Face Communication with client.
- Changes
- Time.

Disadvantage :-

- less Documentation .
- Maintenance Problem:-

## Events :-

1.) Sprint : 2 - 4 weeks.

2.) Sprint Planning : - Beginning of sprint

3.) Daily Scrum : - daily stand up meeting

4.) Sprint Review : - After sprint

## Scrum Artifacts :-

1.) Product Backlog

2.) Sprint Backlog

3.) Increment

## Advantage

1.) Agility : - Flexible & Quick Change

2.) Customer Centric

3.) Rapid Delivery

## Disadvantages

1.) Smaller Team

2.) Less Documentation

3.) No Mid Sprint Changes

## Values of Agile :-

1.) Individual & Interaction over Process & Tools

2.) Working Software over Doc.

3.) Customer Collaboration over Contract Negotiation

4.) Responding to change over plan

- Increased transparency
- which task assigned to whom & yet to complete

### Scrum:-

- Bring teams together with a sharp focus
  - and efficient, collaborative
  - Scrum board.
- ↓
- Group tasks into column based on progress
  - Breaks into sprints, one sprint at a time
  - Scrum leader & product owner

\*.)

### Scrum:-

#### Agile framework

- Adaptability, Rapid value delivery, Collaboration, continuous improvement.

#### Roles

- 1.) Product Owner: - (Client)
  - Ensure team delivers maximum value.
  - Prioritize product backlog.
- 2.) Scrum Master: -
  - Facilitate scrum process.
  - Foster Improvement.
- 3.) Dev team: -
  - Self organizing, cross functional group.

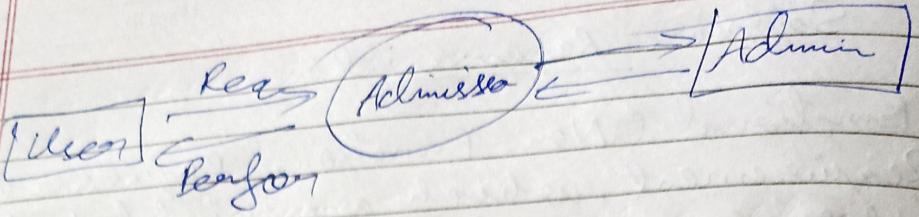
- \* 1) Agile Mindset :- / Values.
- Approach for achieving multi-tasking.
- 1.) Respect for others.
- 2.) Collaboration
- 3.) Improvement & ability to adapt to change.
- 4.) A customer focus.

## \* 1) 12 Agile Principle.

- 1.) Customer Satisfaction
- 2.) Accept Changes.
- 3.) Deliver work frequently.
- 4.) Work as a team.
- 5.) Work with Motivated Team.
- 6.) Face-to-face.
- 7.) Focus on working product.
- 8.) Sustainable Development.
- 9.) Agility.
- 10.) Simplicity.
- 11.) Self organizing team.
- 12.) Reflect & update.

## \* 1) Types

- 1.) Kanban:-
- Day to day workflow & processes.
- Visual means of managing projects to see progress so far.
- Many S.W. Mgmt have Kanban based integration. (Plot task's progress)



### \*.) Agile :-

- Software Development methodology that values flexibility, collaboration, and customer satisfaction.
- Agile Manifesto (Principle)
- prioritize individual & interaction.
- Respond to change.
- Iterative & Incremental Approach.
- Emphasize on delivering a working product quickly & frequently.
- Close collaboration b/w dev team & customer.
- Designed to adapt quickly to change req.
- Remove unnecessary activity.
- Avoid waste of time.

### .) Agile Model,

- 1.) Requirement gathering
- 2.) Design the requirements.
- 3.) Construction / Iteration.
- 4.) Testing / Quality Assurance.
- 5.) Deployment
- 6.) Feedback