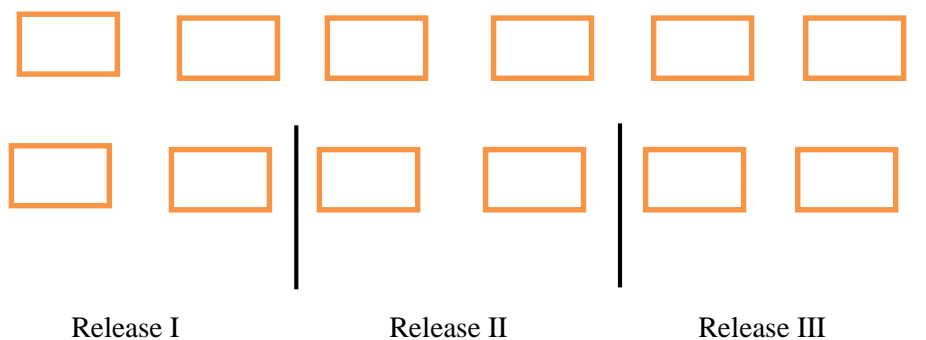


Agile Model

- Agile methodology is the module driven methodology
- In agile methodology requirements changes frequently, so it is not a plan driven methodology
- In agile methodology, stake holder/client can request for change in requirements at any point of development stage
- Stake holder can request for change at any stage (i.e. DIT, SIT, UAT, & Production)
- If any CR, that will be accepted at any point without extra money
- If any CR comes from stake holder then we will accept & check impact on current development, testing & production process
 1. If impact is more on current development & testing, then BA/PM will discuss with client or inform to client
 2. If impact is less then we will consider new CR
- Agile duration of delivery is of 2 to 3 week (fix no=2week)
- Agile methodology is a value driven methodology (we are giving priority to client)
- In agile methodology, project is divided in to no of modules/phases & releases
- As per the stake holders priority or top priority, no of modules have to be developed, module wise delivery is possible in agile or you can say it is a top priority release also
- It's a flexible process
- Ex. In agile method, project is divided into number of modules/phases & releases



- So, these 12 modules are divided in to release & if stake holder wants module 1 & 5 in release I then, module wise delivery is possible (i.e. 1 & 5 can be delivered in release I)

- ❖ V model & agile model- naming convention/keyword/notation are different

V	Agile
Customer	Stake Holder
BA	Product/Project Owner (PO)
BRS	Product Backlog/Project Backlog
SRS	Sprint Backlog
Use Cases/ Functional Requirement	User Story
Release-3 Month	Sprint -2 week
Project Manager	Scrum Master
Extra Money	No extra money
Developer	Developer
Tester	Tester
Designer	Designer
Delivery Manager	Solution Master

- ❖ Agile will contains **different sub type/ sub model/ methodology/ framework/ flavor**
 1. Kanban- Support team
 2. Lean- Support team
 3. XP- Extreme program (only dev. Team & no testing)
 4. Scrum- **Project team/main team-Sprint wise delivery to client with 2 week (Sprint 1)**
 5. FDD- Feature driven development
 6. DSSM- Dynamic system development method
 7. Crystal
- ❖ I have worked in **Scrum Agile Methodology**

❖ Agile architecture

SDLC

Agile

Information gathering
(BRS)

BA

Product backlog (1 project = 2000 US)

Analysis (SRS)

BA

Sprint backlog
(**Sprint 1 = 20 US**) (Priority – Stakeholder)
(**Sprint 2 = 17 US**) No. Decide SM, PO,
(**Sprint 3 = 18 US**)

Use Case (Specific 1 requirement)

1. Description
2. Acceptance criteria

User Story (Specific 1 Req.)

1. Description
2. Acceptance criteria

Designer (HLD, LLD)

Designer (HLD, LLD)

Coding (LLD)

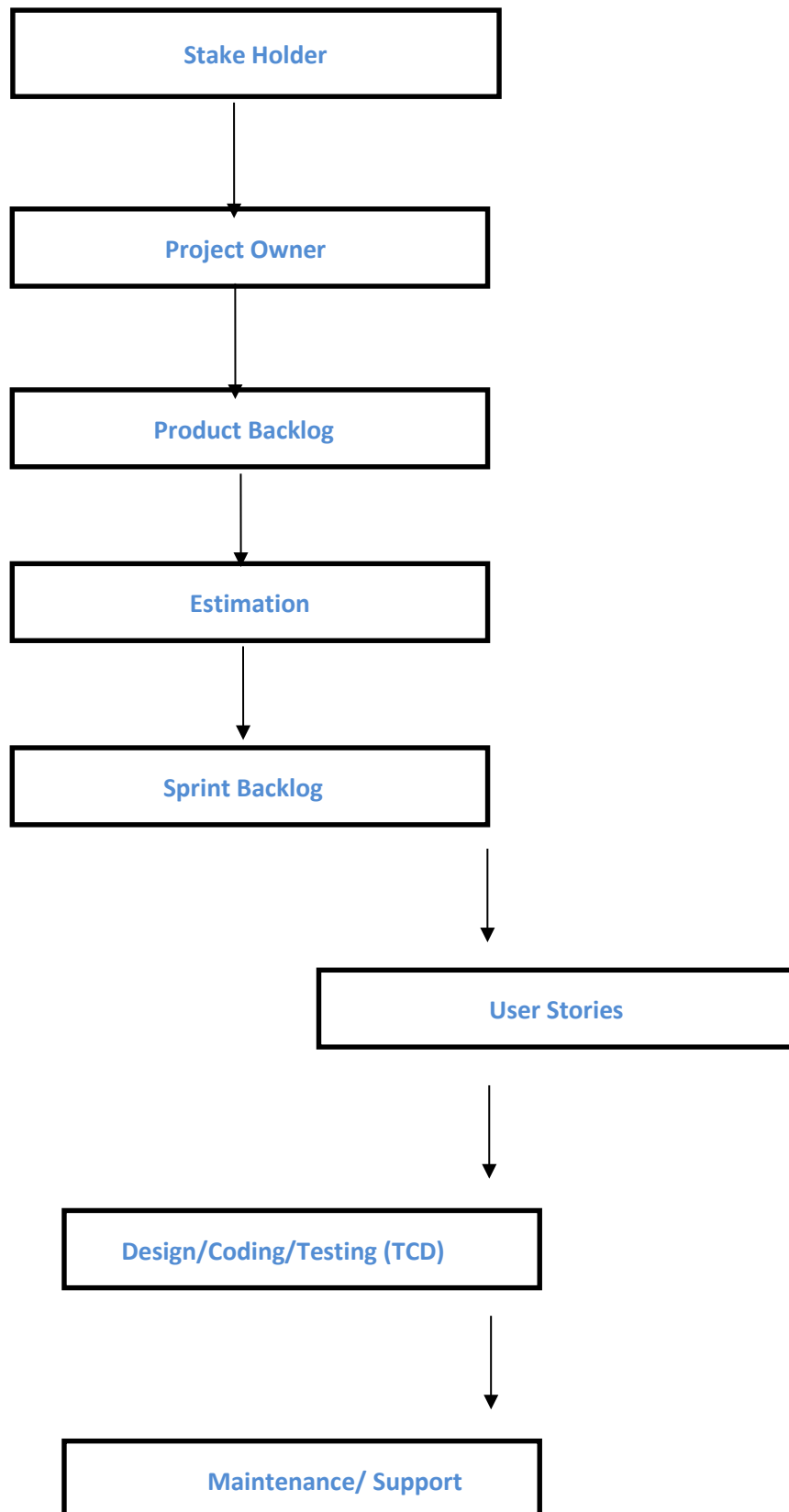
Coding (US against LLD)

Tester – TCD, TCE

Tester – TCD, TCE against US

Support / maintains

Support / maintains



1. Stake holder

- Stake holder is a client/customer
- Stake holder comes with bunch of requirement/own ideas
- Stake holder is a member of the top most body of the company
- In agile methodology, stake holder can request for change in requirement at any point of development stage / at any stage

2. Product owner

- Product owner gather/collects requirements from the stake holder
- Product owner prepares product backlog
- Product / project owner is a team member of **sprint planning meeting**

3. Product backlog

- Created by Product owner
- In product backlog total/overall requirement of entire product / of entire application / whole project is given
- It includes requirement of all modules

4. Estimation

A. Estimation

- In agile methodology the focus is on module base delivery/release
- We get requirements & those requirements are not for one specific/particular module
- So, in estimation requirements are sorted for development
- Estimation is an important parameter of sprint planning meeting

B. Estimation

- It is a process to check how we can deal with problems when obstacle occur
- Estimation of number phases / modules in the projects
So, we can assign number of developers & Testers according to that
- Priority based module
Depends on client's requirement

- Estimation is one kind of parameter of sprint planning meeting
- People involved – PO/DL/TL
- There are 3 main factors in the estimation
 1. Knowledge
 2. Efforts
 3. Complexity

1. Knowledge

- Domain of the project & knowledge about domain of the project are checked
- Experienced & non experienced resources are taken into the consideration
- After that team is formed, after formation of team each member of the team should have knowledge about domain of the project
- KT (knowledge transfer)

2. Efforts

- Authority decide how much efforts are required for project/module
- Authority decide how many resources are required for project/module
- Selection of user story depends on the module

3. Complexity

- Complexity of the project measured to do estimation of time, cost & resources

5. Sprint Backlog

- Created by product owner
- Sprint backlog contains user stories of that particular module
- Product owner prepares sprint backlog
- Sprint backlog contains detailed information of requirements, which are required for development in sprint

6. User stories

- User stories are nothing but functional requirement
- User stories are decided into the estimation phase
- In estimation, sprint planning members decide which module have to develop & what are the requirement of the module, those sorted requirements are included in the sprint backlog
- So those user stories are functional requirement for the modules are to be developed.
- User stories have two criteria

Description criteria – Details about requirement

Acceptance criteria-Does & Don't about requirement

Description Criteria- it is a description about what user want to do (process) & what is his desired output

Acceptance Criteria- these are the scenarios when these scenarios are true then system generate correct output otherwise system show failure

Description criteria template

As a [person/user], **I want** [process], **so that** [benefits]

As a [who], **I need** to [what], **so that** [why]

Acceptance criteria template

Given [context] **when** [a specific action is performed] **then** [set of consequences should occur]

Given [situational pre-condition] **when** [user action 1] & [user action 2].....[user action n]
then [product action 1] & [product action 2].....

User Story	Acceptance Criteria
As a new user, I want to register by creating a username and password so that the system can remember me and my data.	Given that I am a new user, when I go to the sign up page and enter an username and password and click on sign up, then I am successfully registered and able to log in with my chosen credentials.
As a registered user, I want to log in with my username and password so that the system can authenticate me and I can trust it.	<ol style="list-style-type: none"> 1. Given that I am a registered user and logged out, if I go to the log in page and enter my username and password and click on Log in, then the data associated to my user should be accessible. 2. Given that I am a registered user and logged out, if I go to the log in page and enter my username but an incorrect password and click on Log in, then log in fails with an error message that specifies that the username or password was wrong.

Ex.

As a user, I want to be securely login in to the system so that my information can only be accessed by me

As a online customer, I need to search for products, so that I can find the once I want to buy

7. Test case design

- Test cases are designed by tester
- Test cases are mapped with the user stories to cover all the requirement

Agile meetings / ceremonies

- In agile 5 types of meeting / ceremonies
 1. Grooming meeting
 2. Sprint planning meeting
 3. Scrum meeting / daily stand up meeting
 4. Sprint review meeting
 5. Sprint retrospective meeting