

# Agile

## What is Agile?

It is a SDLC methodology to develop a product in company.

It uses Spiral + RAD methods in development, divide and develop parallel.

Roles in Agile:

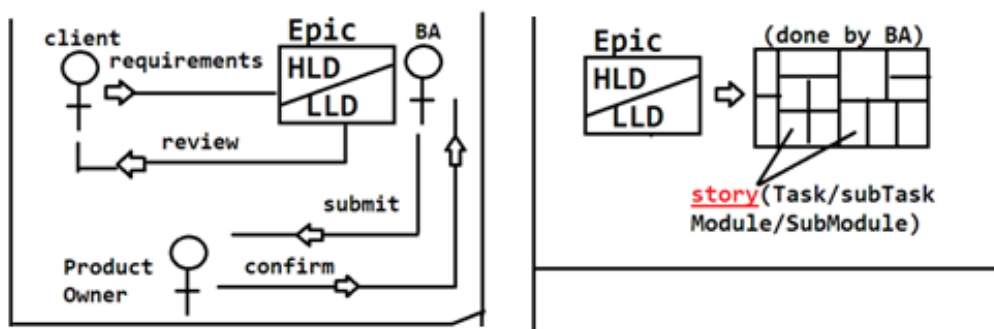
- 1) Business Analyst. (BA)
- 2) Developer (DEV)
- 3) Quality Analyst. (QA)
- 4) Architect (Arch.)

## Epic:

- End client/customer provides all his requirements to BA.
- BA prepares the document (known as EPIC) which contains functional and technical requirements.
- It is like a reference book to product/project.
- We need to develop only points provided in document (not more or less)
- This document needs a final review by **End Client** and approval by **Product Owner**.
- Epic will be divided into 2 parts initially.
  1. High level Design/Document
  2. Low level Design/Document

HLDs are constructed for End User (for product understand and usage)

LLDs are done for Programmer View.



## Scrum Team:

To develop, the product Owner creates a Team with DEV, BA, QA & Arch with MASTER and Leads.

**Story creations:**

- A story is a part of project, it can be a module/sub module/task/sub task.
- A story can be combination of modules/tasks also.
- Size and limits of Stories are defined by BAs.
- Each story Contains "Acceptance Criteria" i.e., what to implement for given story in point by point to Dev/QA/Arch given by BA.

**Story points Calculations:**

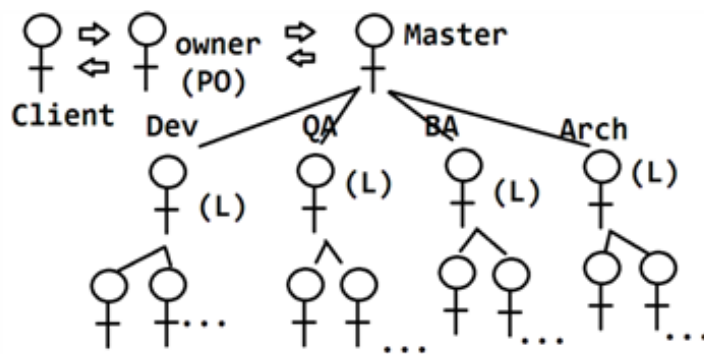
- Time taken to develop a story is known as "Efforts Estimations".
- These are guessed values (Not exact) given by team members.

1 Story point = 8 Hours, 0.5 Story point = 4 Hours

ex: Story-8560 needs 4.5 story points total time (hours)is:36

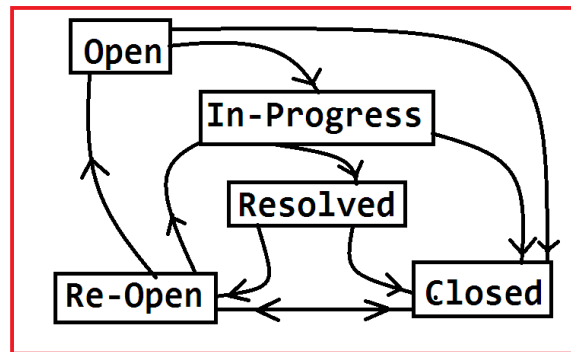
**Sprint Planning:**

- "For a period of time what stories need to implement" is decided in a meeting. Also known as Spring Planning. A sprint is known as milestone/small release/targets.
- In this meeting BA explains about story to all others.
- A sprint can be planned for 10 days,15 days, 1 month... (based on company & project)
- At a time, we cannot plan for all stories. for example, in our project we have 100 stories and we planned as below:
- Sprint-1 (Story 1 to 12) for 15 days.
- Sprint-2 (Story 13 to 32) for 25 days.
- Unplanned stories come under product backlogs (Story 33 to 100).
- In Sprint-1 we planned for 12 Stories, but only 10 are finished after 15 days then, 2 will be moved to Product backlogs.



**Sprint Evaluation:**

- From Day-1 coding/implementation is started by developer.
- To implement any story, dev has to code and Test from his side.
- To represent work status of a story, we follow Story life cycle.
- Shown as below, (possible values are: Open->In Progress->Resolved ->Closed or Re-Open)



**Open:** Every developer gets story in Open Status, which indicates ready to start (ready for coding)

**In-Progress:** Which indicates story is under implementation ( coding is started)

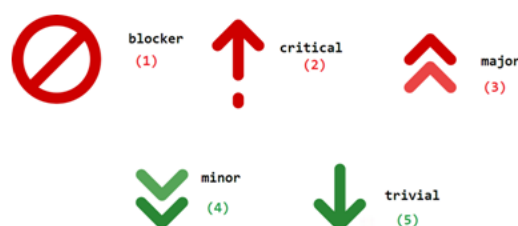
**Resolved:** Indicates Coding and Unit Testing is done. Code is available in Repository (ex: GIT).

**Closed:** Once Testing done by QA and working fine, then story status will be Closed.

**Re-Open:** If code contains Bugs, then story is not complete which will be converted to Re-Open and QA creates a BUG with below priority levels.

**BUG:**

- It indicates problem in application.
- Every bug has a level in AGILE process, those are given below with meaning and symbols.
  - I. Blocker: Unable to do any process.
  - II. Critical: High level problem (But not stopping complete process)
  - III. Major: Normal/Medium problem (Stopping in one way/ other possible processing ways are available)
  - IV. Minor: Small problem or occurs very rare.
  - V. Trivial: Ignorable problem. not makes any problem in process.



**Bug/Defect Life cycle:**

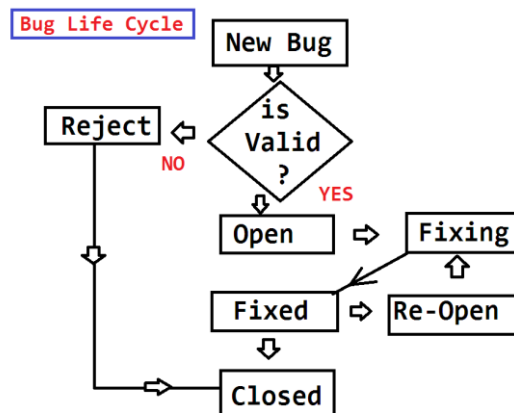
While developing a story, it may contain problems (bug) or it is incomplete then QA identifies the bug and reports to Developer.

Ex:

Bug-32( Critical): Email is not sending while vendor registration.

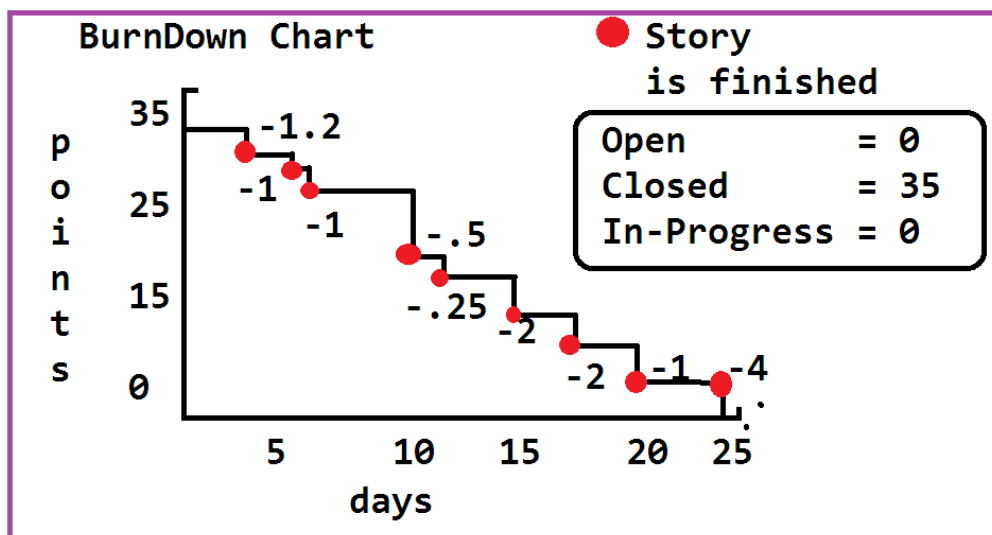
Attached to Story-54(Vendor Registration).

Developer checks bug and validates, if valid starts fixing else reject the bug.

**Burn Down Chart:**

- This is a global chart, constructed to represent status of the sprint/Sprints up-to-date what % of work done is shown by this chart.
- If one story is finished, then it shows -value

Ex: -3.25 points. At end all stories should be finished. +ve value indicates Work is re-opened.



**Scrum Meetings:**

On Starting Sprint, every day we need to provide status updates to Scrum Master.

For this every day meeting is taken by master mostly 15-20 minutes.

Ex:

10:45 to 11:00 AM. sometimes 3:00 to 3:25 PM.

In this meeting we need to tell "what we did yesterday, what we will do today and tomorrow".

