

AGILE, SCRUM AND JIRA: ROLE OF SCRUM MASTER

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Abstract: Scrum is framework in Agile Methodology, earlier we used Waterfall Model where we have to get the requirement from stakeholders and from the businesses and start development of application sequentially according to the waterfall model but in agile scrum framework we have to create small iterations or milestones (sprints) of the entire project and release in JIRA according to number of iterations (sprints). All this scrum cheat sheet can be achieve JIRA comes in a picture as a tool.

Keywords: Agile, Scrum, JIRA

1. INTRODUCTION

There are number of SDLC (Software Development Life Cycle) models. Now we have to discuss about Waterfall and Agile. In earlier we have to developed applications using waterfall model that includes seven steps: Requirement, Analysis, Design, Coding/Implementation, Testing, Operation/Deployment, and Maintenance. So it requires more time to develop applications because of their sequential behaviour to complete all these steps and is generally used for small applications development whereas in agile method the entire project is divided into small iterations or milestones and each can be completed within a 1-4 weeks. Agile is used to develop big projects.

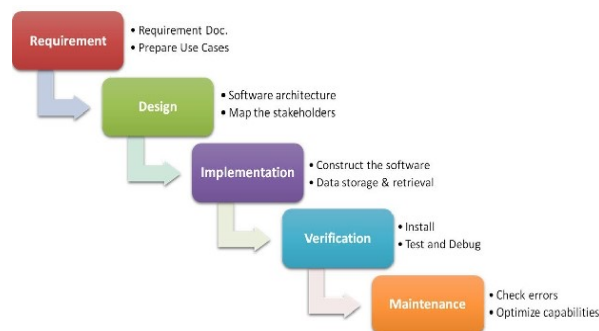


Figure 1. Waterfall Model

2. Project & project Management

Project is a set of tasks that must be completed in a certain duration to get a particular goal or outcome. A project may be simple or complex. It may be small or large but it does not matter whether the project is big or small because each project can be broken down into multiple phases.

Project management is an approach which uses methods, skills, knowledge and experience to achieve a specific goal. The goal can be referred to as a project output that meets the project acceptance criteria and agreed parameters like time, budget, ect. Based on the agreed parameters the final product is build and released.

Project management Approaches- The project management methodologies is a set of principles, tools, techniques that are used to plan, execute and manage projects. Following are the different approaches-

1. Waterfall
2. Agile
3. Scrum
4. Kanban
5. Extreme Programming
6. Lean Method
7. Six Sigma
8. PRINCE 2

Now we will discuss Agile and its popular framework Scrum-

3. Agile

Agile is a most popular approach in a project management and software development. It is an iterative approach means in Agile large project is broken down into a smaller chunks or smaller pieces of work and those chunks of work are called as iterations and developing a project into iterations helps the development team to deliver that to their customer faster.

An agile team deliver works in a small pieces in consumable format where requirements, plans, and results are evaluated constantly. Agile mechanism allows the team to respond to the change quickly.

Agile has following values and principles-

1. Individuals and Interactions over process and tools
2. Working Software over Comprehensive documentation
3. Customer Collaboration over contract negotiation
4. Responding to Change over following a plan

Frameworks of Agile-

There are various frameworks are available in agile and used by many organisations like-

1. Scrum
2. Kanban
3. Extreme Programming(XP)
4. The Crystal Method

Lean Software Development

4. SCRUM and JIRA

Let us discuss about Scrum framework with a project management tool JIRA.

Scrum is an Agile project management Framework that teams used to develop, deliver and sustain complex projects. Scrum is all about continuously shipping values to the customer.



Figure 2. Scrum

All kind of teams like marketing, HR, and design is use Scrum. But software development and engineering teams most commonly use Scrum. It is a favourite framework of many development teams. With a scrum product is built in a series of iterations called Sprint that breaks big and complex project into a small pieces. This makes a project more manageable and allows the team to deliver high quality work, faster and more flexibility to adapt the change.

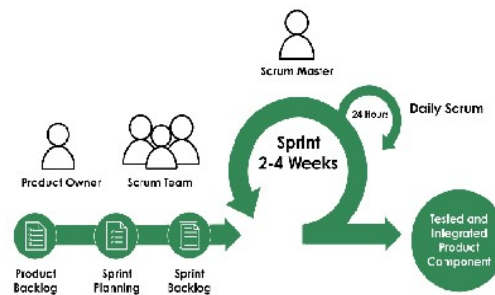


Figure 3. Scrum Framework

The main Components of Scrum Framework are-

1. Scrum Roles-
 - i. Scrum Product Owner
 - ii. Scrum Team
 - iii. Scrum Master
2. Scrum Events-
 - i. Scrum grooming or Backlog refinement meeting
 - ii. Sprint Planning Meeting
 - iii. Daily Scrum Meeting
 - iv. Sprint review meeting
 - v. Sprint Retrospective meeting
3. Product Backlog (Scrum Backlog)-
It is used to manage and prioritize all of the known requirements of scrum project.
4. Sprints-
Cycles of work activities to develop shippable software product or service increments.
5. Sprint Backlog-
It is used to keep track of requirements committed by the scrum teams for a given sprint.

JIRA Software-

JIRA is a project management, issue tracking, and bug tracking tool for agile. JIRA is fully customizable to your needs. You can customize your workflow, you can add your custom issue types, you can add your fields, you can design your issue operations screen as per team requirements and countless add-ons to further enhance the functionality.

JIRA is a project management tool for teams and it was launched in the year 2002 by Atlassian. It is used to track the status of EPIC , user stories, tasks, and subtasks.

Let's discuss the working of JIRA-

1. Create Atlassian Account on www.atlassian.com Login it using your Google Account, Microsoft account, Apple account or slack account.
2. Click on JIRA software. It will land you on project dashboard. If project is not created then click on Create Project and it will ask for project template for your software development. It gives 3 options-
 - i. Kanban
 - ii. Scrum
 - iii. Bug Tracking

So select Scrum -> Use Template->Team Managed then give Project Name. Click on Create Project it will redirect you in your Project Dashboard.

There are the types of the teams to track their work there are 4 products built on JIRA platform.

1. JIRA Core
2. JIRA Software
3. JIRA Service Desk
4. JIRA Ops

So let's discuss one by one-

1. JIRA Core-

It's allow you to track issues using customizable workflow which basically determines how issue can flow from start to completion and what are the other steps along with this basic functionality that would you get with JIRA core which is the base bare minimum JIRA tool that you can use for simple business-related products and task management.

2. JIRA Software-

JIRA Software includes both JIRA Core plus Agile methodologies.

3. JIRA Service Desk-

It is the service desk which is used for support projects using JIRA service desk you can give the better experience to your customers they can easily ask for help and your agent can response them in a faster way, in a better way.

4. JIRA Ops-

It is an incident management tool. It is used to centralized alerts and notifies the right people at the right time.

Role of Scrum-

There are three different roles in Scrum.

1. Product Owner
2. Scrum Master
3. Development Team

The Product owner defines the work, what the product look like and what feature the product contains and clearly expresses those. One of its main responsibility is to bring the phrase of the customer, speak with stakeholders

5. Conclusions

This describes the overview of Software Development Methodologies according to Waterfall and Agile. It also describes pros and cons in waterfall and why agile is mostly used in many IT industry.

It also introduces the difference wise study according to framework and project management tool.

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