Agile and Scrum

Agile is a modern, flexible way of developing software and managing projects. Instead of planning everythings from the beginning or following a strict process, we can use agile methods to make the project more flexible, fast delivery and continuous improvement. The agile work by divide works into small parts called sprints (each sprint between 1-4 weeks), then planning each sprint by selecting tasks to complete, after that we develop and test during the sprint,then deliver the working at the end of each sprint, the we get the feedback from users or stakeholders, finally improve and repeat the process in the next sprint.

We can compare between agile and waterfall because they are different methods but for the same purpose.here the comparisons:

| feature | Agile | Waterfall |
| --- | --- | --- |
| process | Changes anytime (flexible) | Everything planned upfront (fixed) |
| Work style | Divide in small parts(sprints) | Work step by step each phase must finish before the next |
| Changes | Easy change anytime | Hart to change once started |
| Team work | Team work together | Team work separately in different phases |

There are many framework for agile method and the most popular is:

* Scrum: Scrum breaks down big projects into small tasks that can be completed in short development cycles.
* Kanban: Kanban is visual and incremental. Transparency into project statuses is key, so tasks are laid out on a board and categorized as to do, in progress, or done.

Scrum is one of the most popular frameworks using agile methods to manage and develop projects in an efficient way. It divides the project into small parts called sprints.

We can divide scrum roles into three main parts:

* Product owner: collects the ideas or the requirements from the team, stakeholders, customers or the users. Then list all required features or tasks or stories that define the product backlog.
* Scrum master: helps and ensures a smooth workflow.
* Team: the team selects the tasks from the product backlog that they will complete at the end of the sprint (the sprint usually takes 1-4 weeks) this is called a sprint planning meeting.