**What is agile?**

Agile is a project management methodology that uses short development cycles called sprints to focus on continuous improvement in the development of a product or service.

(self-organizing team = كل تيم يقدر ينظم نفسه , cross-fumctional team = with all of the skills as a team necessary to create a product)

**Agile Manifesto is centered on four values:**

Communication with parties is more important than standard procedures and tools.

(التواصل بين التيم وانهم يفهمون بعض اهم من انهم يجيبون تولز عشان يبدون المشروع مثلا يقدرون يبدون المشروع بدون ما يكون التول موجود لكن ما يعني ان التول مو مهم لانه يسهل الشغل )

Working software over comprehensive documentation

مو مهم للكلاينت انه يشوف او يراجع الدوكيومنت يعني لا يصير التركيز على اني اسوي دوك الاهم اني اطلع شي شغال طبعا الاثنين موجودين لكن الاهميه للاول

Customer collaboration over contract negotiation

Responding to changes over following a plan

استعداد للتغير في اي وقت لو طلب شي جديد

### Who uses the agile methodology?

designed originally for the software industry, but many industries have now adopted the use of agile in their development of products and services

so it is now used in industries like marketing and advertising, construction, education and finance.

### Why is agile necessary?

Agile was originally developed for the software industry to streamline and improve the development process

in order to more rapidly identify and adjust for issues and defects.

### How is agile used?

The more traditional heavy and complex methodologies like waterfall typically require entire project groups to meet and discuss full project goals throughout each phase.

Agile, however, uses smaller more focused groups that meet more frequently to discuss very specific goals, making it easier to make rapid changes as required.

**What are the advantages of agile?**

* Agile allows for more rapid deployment of solutions.
* Increased flexibility and adaptability to change.
* Increased success through more focused efforts.
* Faster turnaround times.
* Faster detection of issues and defects.
* An optimized development process.
* Optimal project control.
* Increased focus on specific customer needs.
* Increased frequency of collaboration and feedback.

### What are popular agile methods used?

Within agile here are some frequently used methods, with scrum, kanban, and lean being the most popular.

**What is Scrum?**

Scrum is an [Agile framework](https://www.scrumalliance.org/why-scrum/core-scrum-values-roles) for completing complex projects. Scrum originally was formalized for software development projects, but it works well for any complex, innovative scope of work.

### The Scrum framework in 30 seconds

* A product owner creates a prioritized wish list called a product backlog.
* During sprint planning, the team pulls a small chunk from the top of that wish list, a sprint backlog, and decides how to implement those pieces.
* The team has a certain amount of time — a sprint (usually two to four weeks) — to complete its work, but it meets each day to assess its progress (daily Scrum).
* Along the way, the ScrumMaster keeps the team focused on its goal.
* At the end of the sprint, the work should be potentially shippable: ready to hand to a customer, put on a store shelf, or show to a stakeholder.
* The sprint ends with a sprint review and retrospective.
* As the next sprint begins, the team chooses another chunk of the product backlog and begins working again.

### sprint

The cycle repeats until enough items in the product backlog have been completed, the budget is depleted, or a deadline arrives. Which of these milestones marks the end of the work is entirely specific to the project. No matter which impetus stops work, Scrum ensures that the most valuable work has been completed when the project ends.

### Scrum master

Scrum is facilitated by a scrum master, who is accountable for removing impediments to the ability of the team to deliver the product goals and deliverables.

**The core responsibilities of a scrum master:**

* Helping the product owner maintain the product backlog
* Coaching the team, within the Scrum principles, in order to deliver high-quality features for its product
* Helping the scrum team to avoid or remove impediments to its progress, whether internal or external to the team
* Coaching the development team in self-organization and cross-functionality[[26]](https://en.wikipedia.org/wiki/Scrum_(software_development)#cite_note-26)