## Methodology

Software development needs a working methodology that guarantees control and clear visibility throughout the development cycle, in a short time and a cost-efficient manner.

Vistaprint opts for a much known agile method: Scrum. So what is agile methodology and what is Scrum?

### Agile methodology:

Agile methodology is an alternative to traditional project management, typically used in software development. It helps teams respond to unpredictability through incremental, iterative work cadences, known as sprints.

### Scrum:

#### Scrum Definition:

Scrum is the most popular way of introducing Agility due to its simplicity and flexibility. Scrum emphasizes empirical feedback, team self-management, and striving to build properly tested product increments with short iterations.

Scrum consists of Scrum Teams and their associated roles, events, artifacts and rules. Each component serves a specific purpose and is crucial to Scrum’s success and usage.

#### Scrum Roles:

Scrum has only three roles: Product owner, Team and Scrum master.

##### Product owner:

The Product Owner is responsible for maximizing the value of the product and the work of the Development team. They are the sole person responsible for managing the product Backlog. They are one person, not a committee. For the Product Owner to succeed, the entire organization must respect their decisions.

##### Development Team:

The Development team consists of professionals who do the work of delivering a potentially releasable Increment of the product at the end of each Sprint. They are empowered by the organization to organize and manage their own work. The resulting synergy optimizes the overall efficiency and effectiveness.

##### Scrum Master:

The Scrum Master is responsible for ensuring Scrum is understood and enacted. This is done by ensuring that the team adheres to Scrum theories, practices and rules. They are a servant-leader for the team. They help those outside the Scrum Team understand which of their interactions with the team are helpful and which are not. They thus try to maximize the value created by the Scrum Team.

#### Scrum events:

All events are time-boxed, such that every event has a maximum duration. Once a sprint begins, its duration cannot be shortened or lengthened. The other events may end whenever their purpose is achieved, without allowing waste in the process. These events are specifically designed to enable critical transparency and inspection.

##### Sprint:

Many thinkers say “Sprints are the heart of Scrum”. A sprint is a time-box of one month or less, during which a useable and potentially releasable product element Increment is created.

Sprints consist of the Sprint Planning, Daily Scrums, development work, Sprint review, and the Sprint retrospective.

##### Sprint Planning:

The work to be performed in the Sprint is planned at the Sprint Planning. The plan is created by the collaborative work of the entire Development team.

##### Daily Scrum:

The Daily Scrum is a 15-minute event for the Development Team to synchronize activities and create a plan for the next 24 hours. This is done by inspecting the work since the previous Daily Scrum and forecasting the work that could be done before the next one.

##### Sprint Review:

A sprint review is held at the end of the Sprint to inspect the Increment and adapt the Product Backlog if needed. This is an informal meeting and the representation of the Increment is intended to elicit feedback and foster collaboration.

The result of the Sprint Review is a revised Product Backlog that defines the probable Product Backlog items for the next Sprint. It may also be adjusted to meet new opportunities.

##### Sprint retrospective:

The Sprint Retrospective is an opportunity for the Scrum Team to inspect itself and create a plan for improvements to be enacted during the next Sprint. It occurs after the Sprint Review and prior to the next Sprint Planning.

#### Scrum Artifacts:

The artifacts represent work or value to provide transparency and opportunities for inspection and adaptation.

##### Product Backlog:

It is an ordered list of all features, functions, requirements, enhancements, and fixes that constitute the changes to be made to the product in future releases and is the single source of requirements for any changes to be made to the product. The Product Owner is responsible for the Product Backlog, including its content, availability and ordering. It evolves as the product and the environment in which it will be used evolves. The backlog is dynamic and constantly changing.

##### Sprint Backlog:

The Sprint Backlog is the set of Product Backlog items selected for the Sprint, plus a plan for delivering the product Increment and realizing the Sprint goal. It is a forecast by the Development Team about what functionality will be in the next Increment.

##### Increment:

The Increment is the sum of all the Product Backlog items completed during a Sprint and the value of the increments of all previous Sprints. At the end of the Sprint, the new Increment must be in a useable condition and meet the team’s definition of “Done”.