Planning and Estimation

Today's Agenda

- Scrum Methodology
- Backlog Refinement
- Planning Session
- What is estimation?
- Effort
- Estimation Types
- Agile Estimation
- Estimation Units in Agile Projects

Scrum Methodology

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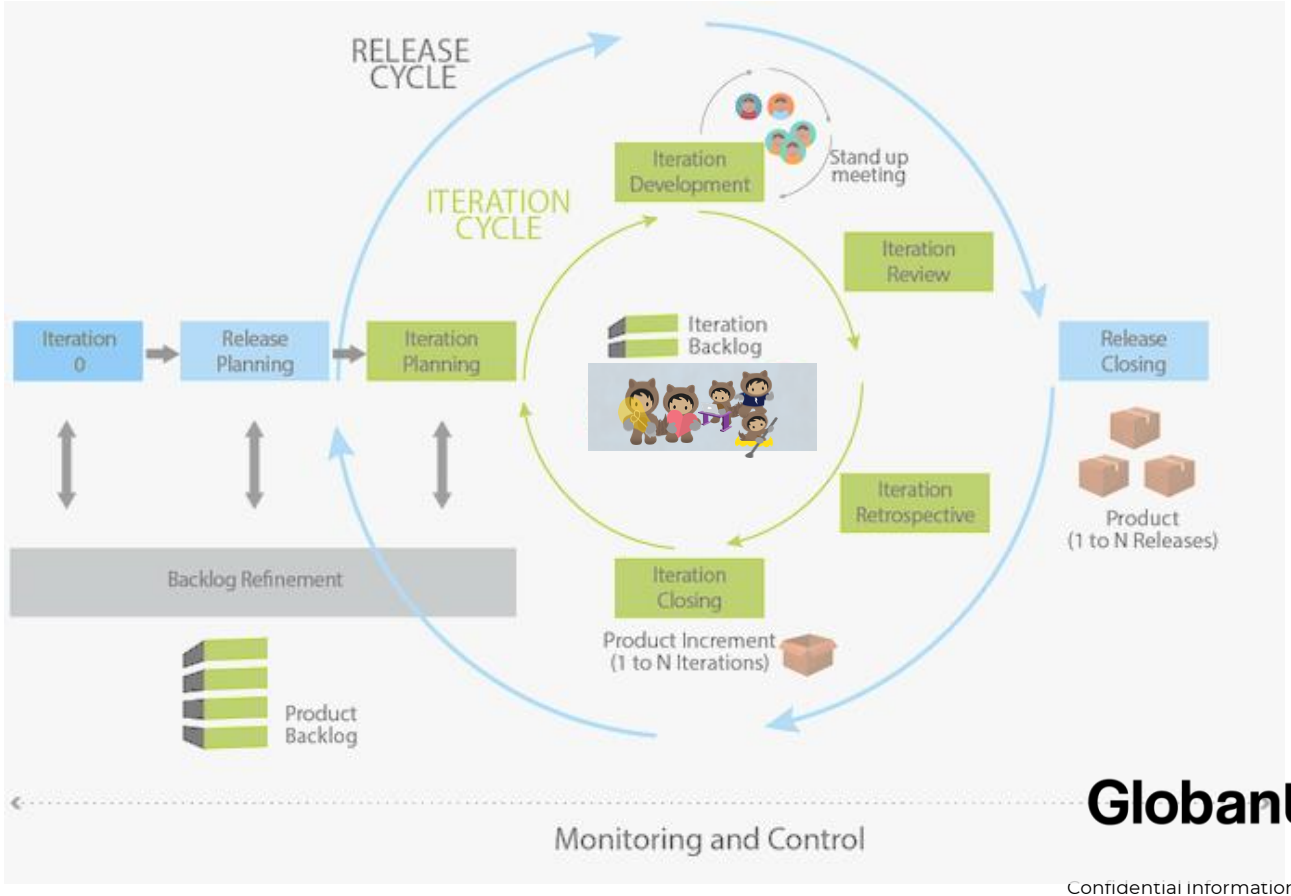
Scrum Methodology

Product Owner

Scrum Master

Team



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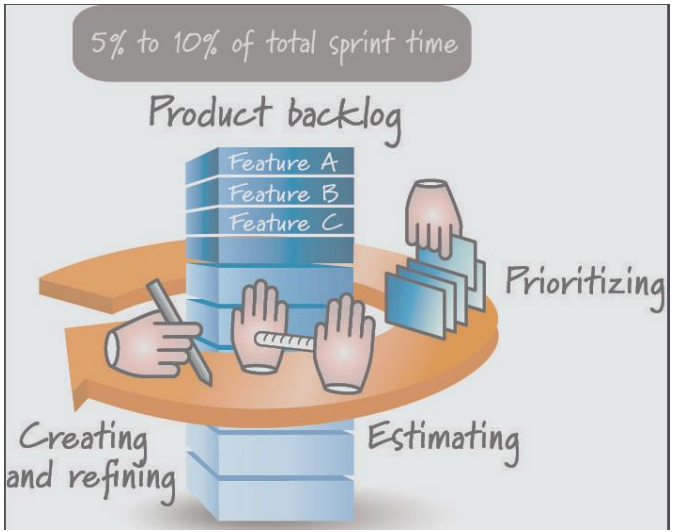
Backlog Refinement

Backlog Refinement

Epics & User Stories

Product Backlog



An example of a refined User Story

A user must never have to wait long for a screen to appear.	→ As a user, I want to see new screens within 2 seconds 95% of the time.

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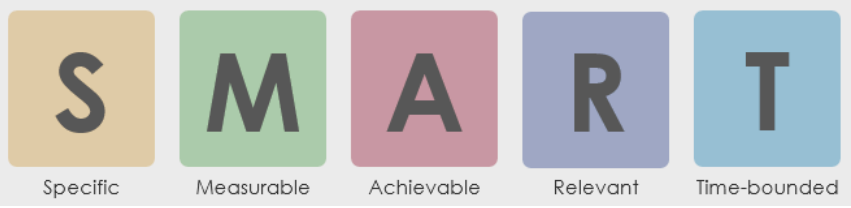
Backlog Refinement

For an effective Backlog Refinement meeting, Globant recommends to implement **“SMART & INVEST”** techniques.



I	Standalone PBI with no dependencies
N	It can be changed in anytime
V	Having a good value for the end user
E	The team is able to estimate and size
S	Small enough to be developed and tested
T	Testing is possible from AC and DOD

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Planning Session

Planning Session

At the beginning of each iteration, the team choose which features will be develop during the sprint.

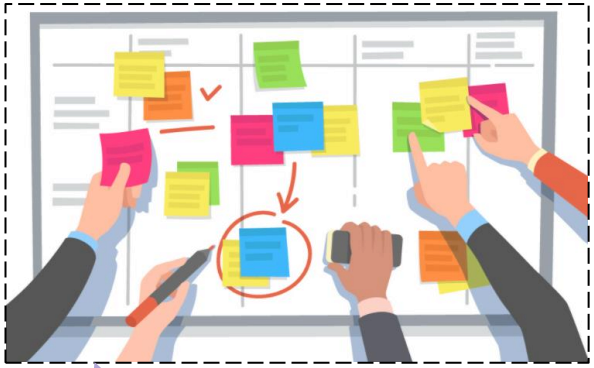
Backlog

Sprint Objective

Estimated Velocity

Story Points

Sprint Backlog

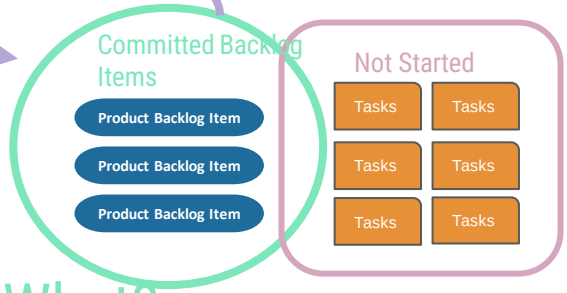


Committed backlog items

Not started

In progress

Completed



What?

How?

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Planning Session

Understand the releases.

Prioritize requirements.

Review the requirements.

Discuss about the delivery according the dependencies

Define the commitment (Dev Team).

Generate a consensus Dev Team - PO - Scrum Master.

Start the Sprint.

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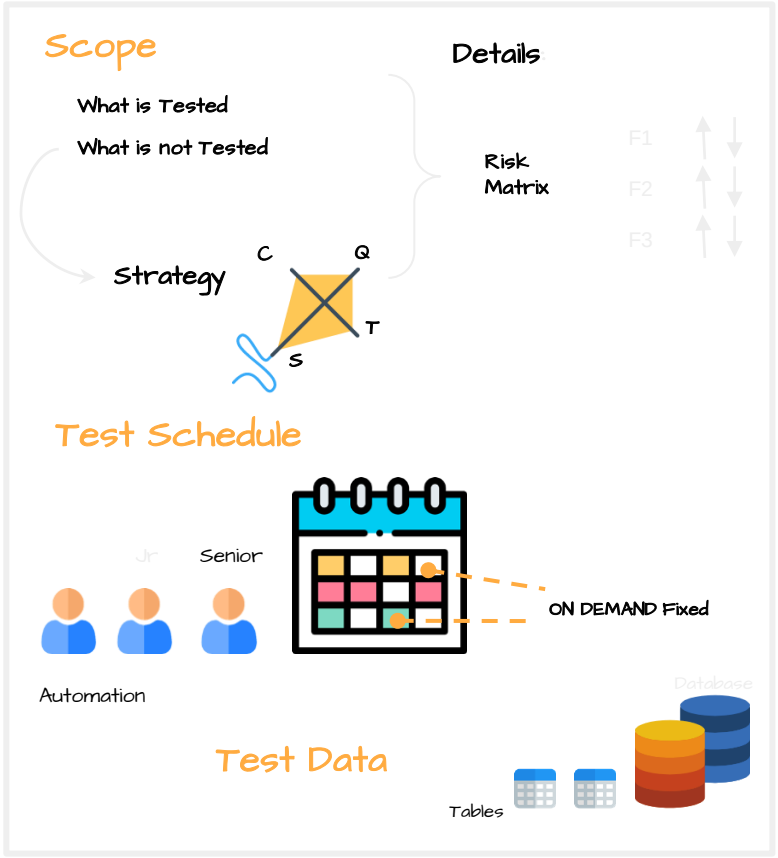
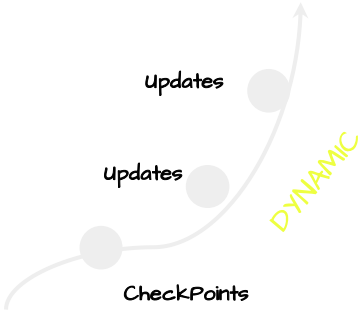
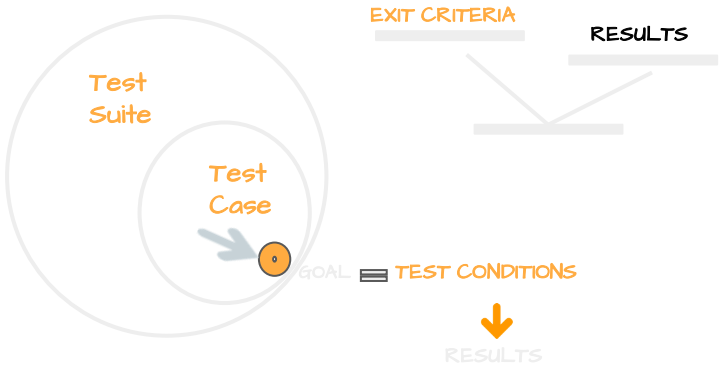
Test Planning



TEST PLAN





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What is estimation?

What is estimation?

Estimates **consists** on predicting values...

What is Software Estimation?

Test estimation is a management activity which approximates how long a task would take to complete and how much would it cost.

Estimation is used to estimate the effort, cost and timelines for testing.

Effort

Effort

The effort may depend on a number of factors, including:

- **Characteristics of the product:** the quality of the specification and other information used for test models (i.e., the test basis), the size of the product, the complexity of the problem domain, the requirements for reliability and security, and the requirements for documentation.
- **Characteristics of the development process:** the stability of the organization, tools used, test process, skills of the people involved, and time pressure.
- **The outcome of testing:** the number of defects and the amount of rework required.

Estimations types

Estimations Types

In a project level:

- Expert Estimation
- Estimation Based on Analogies
- Percentage Based Estimation

Estimations Types

Expert Estimation

- Identify all the tasks to be performed (usually using a top down approach) for one user story.
- Obtain estimates for each task by those responsible (of their execution) or experts.
- Add all the values of the tasks. Include correction factors (if there are experiences regarding the accuracy of certain estimators).
- Include buffers / additional elements in order to cover missed or underestimated tasks.

Estimations Types

Estimation based on analogies

- Sort the required test tasks.
- Look for a previous project that contains a task similar to one in the new project.
- Use the real effort the task took in the past as the basis of the estimate.
- Through the use of metrics (lines of code, number of modules, number of test cases, etc.) as basis calculate the value of the total estimate.
- Consider correction factors.

Estimations Types

Percentage based estimation

- The effort for testing activities is estimated on the basis of the total project activities.
- Percentage value requires to be determined based on experience.
- The percentage-based estimation does not take into account the effort of regression tests which can be a substantial part of maintenance testing and associated with changes.

Agile Estimation

Agile Estimation

Estimations Units in Agile Projects

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Sprint Planning

Agile Estimation

At a high level, the process looks like this.

01

Estimate the features in a short time-boxed exercise during which you estimate feature size not duration.

STEP 02

Use feature size to assign features to iterations and create a release plan.

03

identifying the specific tasks

04

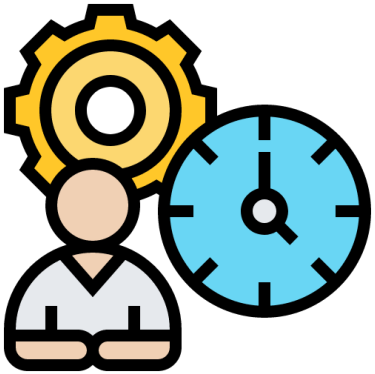
Re-estimate on a daily basis

Estimation Units in Agile Projects

There are two units used for effort estimation in agile projects:

Story Points

Ideal Time

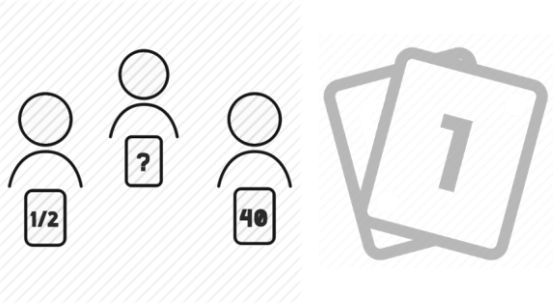


Estimation Units in Agile Projects

Story Point

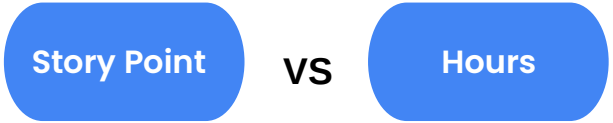
- Is a relative scale to measure the size of an User Story
- It does not have any physical significance. 2-story-point User Story is twice as big as 1-story-point Story, that's all.

- Sometime it is referred as bucks, points, Gummy Bears.
- Estimating by using Story Points is faster and drives to cross-functional discussions.



Story point

Estimation Units in Agile Projects



- Traditional software teams give estimates in a time format: days, weeks, months but **Agile teams** have transitioned to story points.

- Story points rate the relative effort of work usually expressed in a Fibonacci-like format: 0, 0.5, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89.

- It may sound counter-intuitive, but that abstraction is helpful because it pushes the team to make tough decisions around the difficulty of work.

Estimation Units in Agile Projects

Ideal Time

- Is the time required to complete an User Story if there is no interference during work.
- If an User Story is estimated to take an Ideal Day, then that User Story requires a full day of work time.

- Time required of email checking, meetings and design discussion should not be counted.
- Is devoted to do the work.

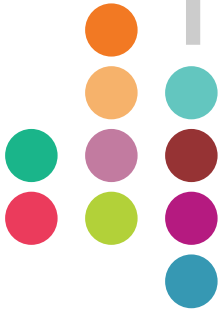
Planning Activity

In a word file describe the steps plan your trip or cooking a special dish.

Example :

- Climb a mountain
- To know another country, ex‘ the statue of liberty’
- Cooking your favorite dish.

Activity



Thank You!