Agile method and Scrum

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October 2023

These slides are based on the ones from Pierre LERMUSIAUX

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How to find this course on Arche

- On your Arche top bar (blue-ish), click on "Home" ("Accueil");
- Then "LORRAINE MANAGEMENT" (5th button, purple);
- And search (in "LORRAINE MANAGEMENT") for "Agile Methods";
- Full name of the course is "M1 TAL - Agile Methods and Scrum - 2023/2024", password is "AMS-2324".

LORRAINE MANAGEMENT INNOVATION > Institut des Sciences du Digital, Management et Cognition - IDMC

M1 TAL - Agile Methods and Scrum - 2023/2024

Cours   Paramètres   Participants   Notes   Rapports   Plus ˅

˅ **Tuesday, October 24th**   Tout replier

Annonces

Airplaine Folding Instructions   Document PDF

Airplanes Exercise   Document PDF

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- Their goal: to be as efficient as possible;
- Efficient: fast, functional, quality of the product, maintainability, etc.;

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Project overview
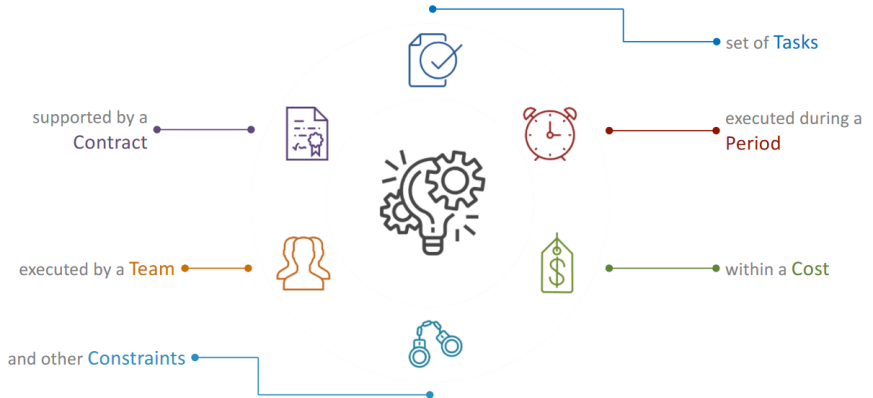
Management of a project : what is needed

- Any ideas ?

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Management of a project : what is needed

- - 1. Requirement analysis
    2. Design
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    4. Testing $\rightarrow$ *Product delivery*
    5. Maintenance
    $\rightarrow$ Waterfall method
- Good communication during the project between the different people working on it;
- Adaptability : if the customer don't like the design when the product is delivered ? How bad is it ? Do you go to court ? Are you able to change it, without any more costs ?

The V-method
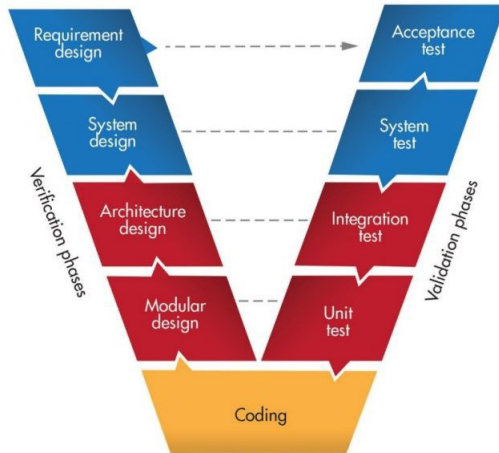
Pros and Cons

Advantages:

- Possibility to go backwards;
- Able to see when a problem occurs;

Disadvantages:

- Big steps/blocks → small adaptability (delays, requirement change, etc.);
- Communications between the parties is limited;
- Measurement of the progression is complicated;

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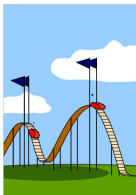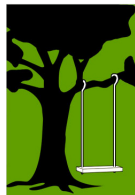
Agile method : idea

- Structure the project in some small iterations:
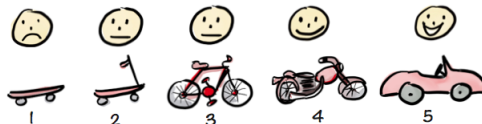 First iteration $\rightarrow$ test it $\rightarrow$ when it works, second iteration, etc.;

Agile method : idea

- Structure the project in some small iterations:
  First iteration $\to$ test it $\to$ when it works, second iteration, etc.;

- Idea of minimum viable product;
 *Example: "I need a personal transport"*
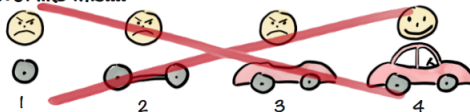
Agile principles[1]

- Individuals and interactions *over processes and tools*;
- Working software *over comprehensive documentation*;
- Customer collaboration *over contract negotiation*;
- Responding to change *over following a plan*;
- Regular delivery to the client of product increments;
- Daily communication between all parties;

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[1]You can find more information on https://agilemanifesto.org/

Scrum
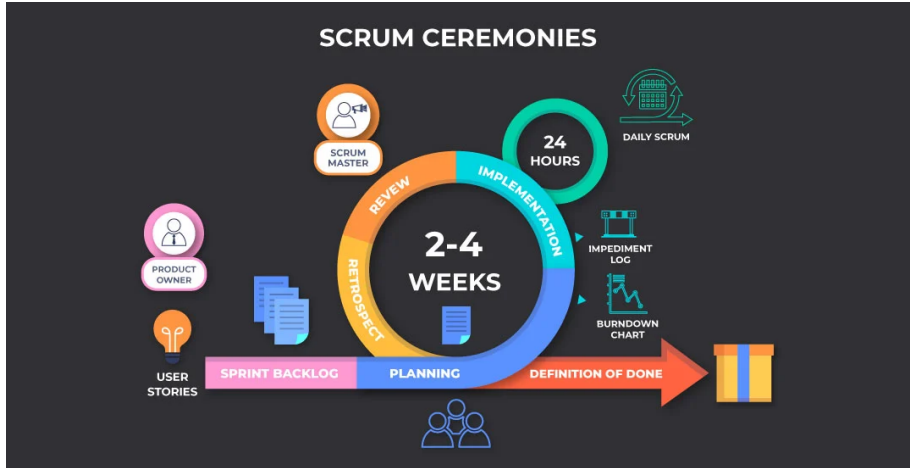
Backlogs

Product Backlog ($\rightarrow$ *general*)

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- List of product requirements (ordered by implementability and priority);
- Effort/complexity estimation;
- Added value.

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Sprint Backlog ($\rightarrow$ *only for the current sprint*)

- List of user stories (*i.e.*, tasks to be performed during the sprint, doable by one person) with:
    - Description of (sub-)features;
    - Criteria of acceptance;
- Chosen/refined from Product Backlog;
- Status: Ready, Ongoing, Done, Blocked.

Roles

Scrum Master

Product Owner

Development Team

Roles

Scrum Master

- Organizes and supervises meetings (*daily scrum*);
- Watches over problems, oversees difficulties, encourages cooperation;
- Checks progress of the sprint ($\rightarrow$ update backlog status).

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- Define project orientation;
- Must know the requirements and priorities;
- Manages Product Backlog and add/remove/update User stories;
- Validate product increments.

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Development Team

- No fix roles;
- Self-organized;
- Stable during a Sprint.

Advantages and good practices

Advantages

- Iterative and incremental method;
- Daily meetings (progress recap, problem detection, problem solving);
- Self-organized, but some referents if needed;
- Testing in software development.

Good practices

- Define each sprint properly (sprint goal, user stories, etc.);
- Documentation;
- Communication.

Some tools are often used, like Trello or Slack.

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Conclusion

$\rightarrow$ The main problem :
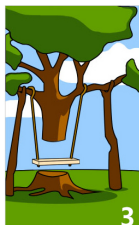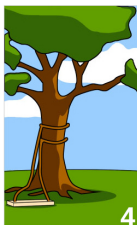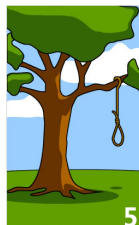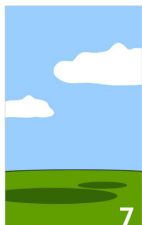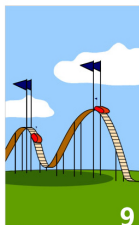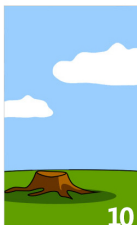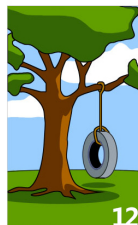
Conclusion

$\rightarrow$ One possible solution : the Agile method