Investigacion Operativa

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1 What is operation research?

There are certain problems in life that can be solved through operation research. Generaly, we try to improve certain quantifiable aspect through a decision.

These problems have a high combinatorial solution.

2 Lean, applied to SW Ing

First reference: Tom and Mary Poppendieck, they created the term Lean Software Development. The SW Agile manifesto is important as well:

2.1 Values

1. Individuals and relations above processes and tools

2. Working SW over excessive documentation

3. Colaboration with the client over contractual negotiations

4. Answers to change over following a plan

2.2 Principles

1. Our biggest priority is to satisfy the client through early and continous delivery of valued software

2. We accept the change of requisites, even in late stages of development. Agile processes take advantage of change to give competitive advantage to the client

3. We deliver functional sw frecuently, in periods of two weeks to two months, aiming for shortest time span possible

4. Project owners and developers work together during all the project.

5. Projects are developed around motivated individuals. They must have the environment and support that they need, and they must be trusted with the work execution.

6. The most efficient method to communicate information to the development team and between its members is face to face talk

7. Functioning SW is the main measure of successe

8. Agile processes promove sustainable development. The promoters, developers and users must be capable of keeping a constant rythm for undefined periods of time

9. Continuous attention to technical excelence and good design, is what improves Agility.

10. Best architectures, requisites and designs come from self organized teams

11. The team reflects on how to be more effective in regular intervals, in order to adjust and perfect its behaviour.

2.3   Lean Software Development Principles

1. Delete waste, everything that does not have value for the client

2. Amplify learning

3. Take decisions as late as possible, when we have more info

4. Deliver as fast as possible

5. Delegate responsability on the team.

6. Build with integrity.

7. Global vision: try to avoid local improvements, instead, go for a global approach.