Project Methodologies

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INTRODUCTION

What is this book about?

There are 3 methodologies that are going to be covered in this booklet. These methodologies are ideas and structure that can be used in a project to result in a deliverable. The first methodology is going to be the waterfall methodology which is common for its use in big projects. The second one is Agile methodology which grew famous of its major use of client feedback. Plans are spread through out the entire project and the deliverable is produced from constant feedback. The last one is spiral methodology which is heavy on a risk analysis phase, where risk are assessed.

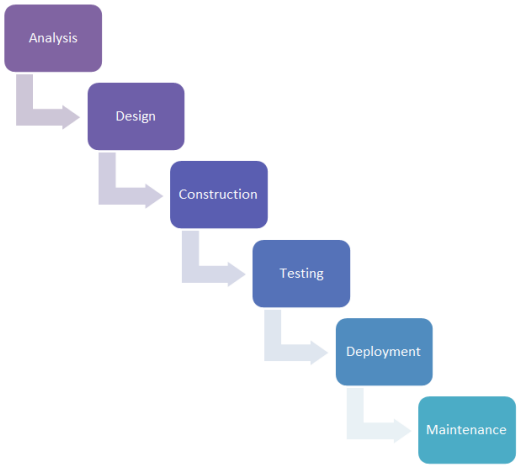
WATERFALL

Methodology - The straight flow

Originally used for software developing, waterfall methodology is the idea of going through a project like a waterfall. Having steps and processes already decided from start to finish. This is commonly used for big and expensive projects where changes during the project may be close to impossible to occur. Unlike other methodologies described in this booklet, waterfall methodology is the only one which success highly depend on the project and analysis stage. This is because once the projects starts rolling then there is no going back.

Once plans are done then the works and the deliverable like website is developed. If plans were done correctly then the deliverables will come out the way they were planned.

You could also think of the plan stage as a blueprint making. This is because the plan is followed exactly as it is, which is not the case in other methodologies.



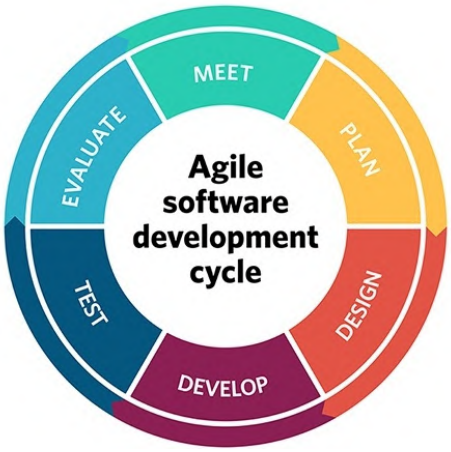
AGILE

Methodology - The constant feedback

Agile methodology is commonly known for its strong feedback. The deliverable, during it's making will receive lot of feedback from users/clients who will give ideas and show flaws with the deliverable. The process will go on for as long as there are major flaws in the deliverable. This methodology is a good pick if there is a chance that the sponsor/client is likely to change their needs and wants after the project began. The sponsor/client will likely be contacted a lot to make sure the project is on track. Their view change will change the projects view. There is no huge planning as it is spread out during the entire project. It is a constant loop of make, debug and remake.

Agile methodology usually focuses on getting the deliverable out to the sponsor/client as soon as possible to get feedback from it.

It is also important to notice that errors are bound to happen so there is a lot more collaboration with team members to make sure no problem delays the deliverables. This is also why you nearly can't set a budget because you may end up using less or more then planned. This is because as we previously stated, planning is spread through out the entire project.



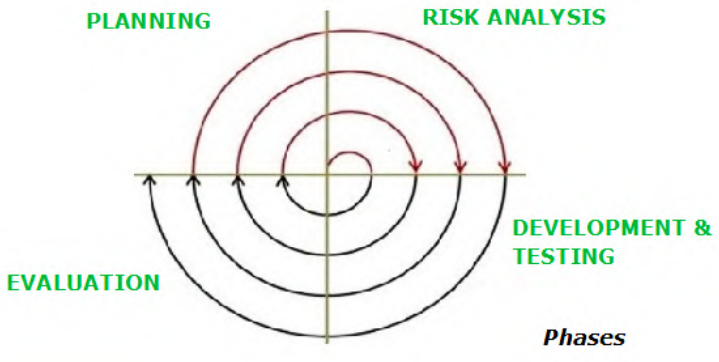
SPIRAL

Methodology - Loop of making and evaluating

Spiral methodology is one of it's kind. By this I mean that it is different from waterfall and agile methodologies, as it has 4 stages that iterate through one after the other in a loop. It's unique factor is it's risk analysis phase.

It first begins with it's first iteration which starts with a plan. A plan that sets of goals and needs of the project. Things like equipment and deliverable development are planned. After wards a risk analysis is made to establish any potential problems and risks. Risks that are found will be taken into a consideration. There will be lot of precautions and preparations to prevent them from occurring during the next phase. Where the next phase is the Development phase. This phase is making of the deliverable. Because all the risks were analysed and plans made, there should be no problems in the making. Once the deliverable is made then the Evaluation begins, where the success of the deliverable will be made and plan for the next iteration is made. Usually just like the agile methodology the clients feedback will be taken into a count when making the evaluation.

The iteration can be also looked at as prototypes as the more you iterate the better the deliverable should be.



COMPARASIN

Waterfall and Agile methodology

Waterfall and Agile:

- In Waterfall methodology you are very dependant on the plan you design at the beginning, where in the agile methodology you are more free to utilise feedback to develop a better product.
- It is however important to understand that waterfall methodology is the only one where planning is done to near as much perfection as possibly. This is because the plan is its main blueprint/pathway. Where agile methodology does the opposite as its plan is just a simple outline which can be easily changed to fit the feedback and needs of the client.
- As waterfall focuses more on planning, then because if that it will be more capable on estimating the cost of the deliverables development.
- Agile methodology is not planned as well as waterfall methodology thus it lacks the future vision of the end deliverable. The end deliverable may be something a lot different then what was first described.

COMPARASIN

Waterfall and Agile methodology

Agile and Spiral:

- Every plan is assessed in spiral methodology so that the risks are less common. Agile methodology on the other hand doesn't as evaluation comes after plan was done and the deliverable was made. This allows for an inefficient plan to be put in use.
- Spiral methodology needs a data analyst which agile methodology doesn't have. They have the data analyst to make the risk assessment to improve the efficiency of the project.
- Agile methodology is based more on client collaboration, which will lead to the deliverable being something that the client should be very happy too finished. This is because all their requests and needs will be satisfied even if they changed during the projects life.
- It is easier to introduce changes in agile methodology as changes do not need to be planned, analysed and evaluated. They simply get thought of and then made. Spiral methodology thus takes more time if new features or goals need to be added.
- Agile methodology focuses on speed so it will try to release its deliverable quicker then spiral methodology would.

COMPARASIN

Waterfall and Agile methodology

Spiral and Waterfall:

- It will take lot of time before all the plans are done in waterfall methodology, where spiral methodology makes sure prototypes are released so that the client will have a preview on how the project is going.
- Waterfall methodology makes sure that any possible problems are captured and prepared for in the planning phase. However if an unexpected problem occurs then only spiral methodology is capable of fixing it as it goes through risk assessment phase every time a new prototype is released.
- Waterfall methodology has a set end date so everything can be estimated but this is not seen in spiral methodology, meaning that project that user spiral methodology may underestimate the resources.

SOURCES

The index of used sources

Images:
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https://searchsoftwarequality.techtarget.com/definition/spiral-model

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