

# Agile Methodology

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# Speaker

## Agenda

¥ Begins

¥ Needs

¥ Agile Manifesto

¥ Features

After defining and viewing the different software development methods. Now, it is time to introduce and detail the agile methodology.

## Agile Methodology Begins

Agile is a software methodology based on the production models of Toyota and Canyon. For this reason, this section is devoted to explain the Toyota production model.

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Lean Manufacturing uses the minimum necessary resources, removing all wastes and maximising the product value.

Ñ Toyota

Lean manufacturing is about using the necessary resources to build a product. For that, we need to avoid wasting times, reduce the inventories, improve efficiency and continuous improvement to increase product quality.

## LMP Principles

In the following video, it is showed the principal components of Lean Manufacturing.

# !Functional

The concept of lean manufacturing could be applied to software development. In this case, the main principles could directly extrapolated: - Reduce code defects (Bugs) - Adjust the functionalities of the product. - Reduce no productive tasks (documentation) - Optimise the work and the time to work.

## Agile Methodology Needs

This software principles are the base for the Agile Methodology. But, how the agile methodology born?

# !Functional

The first problem to deal with is referring the velocity to create newer products. This implies the companies to make the production and development of new products in shorter periods of time.

## !Functional

Another important aspect is the uncertainty of the market. The companies has been forced to create a variety of products to cover as much markets as possible. Today, the companies needs to life from a variety of products to survive.

## Agile Manifesto

### Agile Manifesto - 4 Values

The agile manifesto establishes the main rules of the agile methodology. The first important aspects refer to the 4 values: - People Interaction. Agile strength is in the team interaction and customer interaction in order to build the product. It is important bidirectional communication with the client. At the same time, the interaction between the development team is important to advance in the product development. - Functional Prototypes. Important aspect of agile is to have always a functional software to show to the client. Over this initial software new functionalities/requirements appear and then, new aspects to improve the product should be developed. - Customer Involvement. The development is focused on the user (client). Based on them, the product is constructed and for this reason, it is important a close relation with the customer. - Response Change. Refers to the ability to add/remove requirements and functionalities without impacting in the product costs.

## Agile Manifesto - 12 Principles



## Agile Manifesto - 12 Principles

Agile Features

People

Quality

Customer-based

[Customer] | *customer.gif*

# Simplicity

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# Data Analytics

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# Let's go with SCRUM & Extreme Programming