

# Applying Agile Software Methodology for the Development of Software Development Life Cycle Process (SDLC)

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## Abstract

Software engineering (SE) is the application of a systematic, discipline quantifiable approach to the development, operation, and maintenance of software. The study of these approaches is the application of engineering to software. It is the application of engineering to software because it integrates significant mathematics, computer science and practices whose origins are in engineering. In the Existing System (software development life cycle), first step is completed, after that go to the next step, if there is any problem is occurred in the first step. Here cannot go to the first step. In that situation, we proposed an Agile Software Methodology. In that methodology, there is used to SPRINT Method.

**Keywords:** Software Engineering, Software Engineering Development Life Cycle Process (SDLC), Software Design Principles

## I. INTRODUCTION

### A. Introduction to Agile Software Methodology

Agile Software Development is an umbrella term for a set of methods and practices based on the values and principles expressed in the Agile Manifesto. Solutions evolve through collaboration between self-organizing, cross-functional teams utilizing the appropriate practices for their context.

### B. Agile Software Development Values

- Individuals and Interactions over processes and tools
- Working Software over comprehensive documentation
- Customer Collaboration over contract negotiation
- responding to Change over following a plan

## II. SOFTWARE DEVELOPMENT LIFE CYCLE PROCESS (SDLC) (EXISTING SYSTEM)

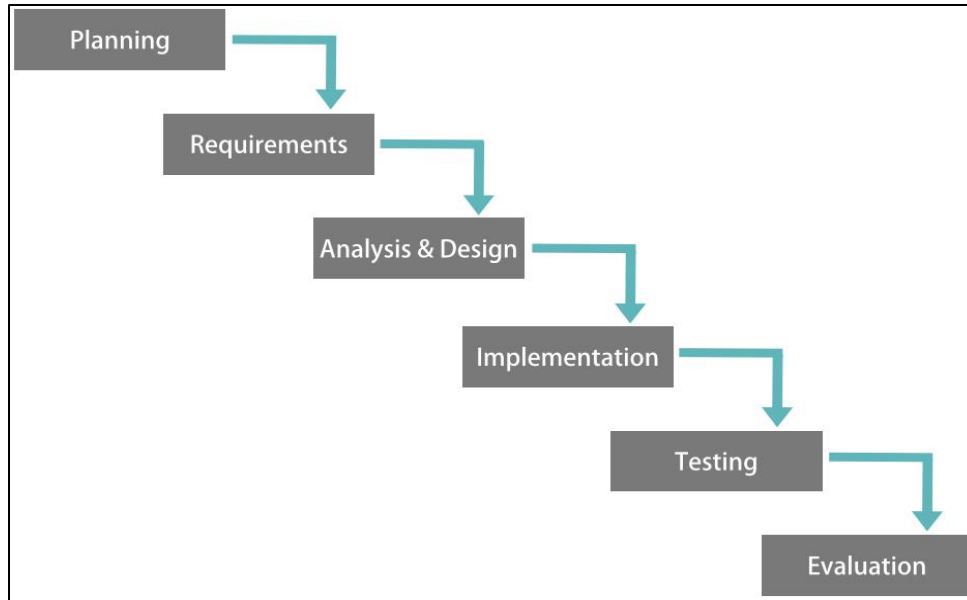


Fig. 1: Waterfall SDLC Model

### **A. Planning**

Planning for the quality assurance requirements and identification of the risks associated with the project is also done in the planning stage. The outcome of the technical feasibility study is to define the various technical approaches that can be followed to implement the project successfully with minimum risks.

### **B. Requirements**

During this phase, detailed requirements of the software system to be developed are gathered from client

### **C. Analysis & Design**

- Plan the programming language like Java, PHP, .net
  - Or database like Oracle, MySQL, etc.
- Or other high-level technical details of the project

### **D. Implementation**

After design stage, it is built stage that is nothing but coding the software

### **E. Testing**

Test the software to verify that it is built as per the specifications given by the client

### **F. Evaluation**

Deploy the application in the respective environment once your system is ready to use, you may later require change the code as per customer request.

### III. SOFTWARE DEVELOPMENT LIFE CYCLE PROCESS AGILE SOFTWARE DEVELOPMENT (PROPOSED SYSTEM)

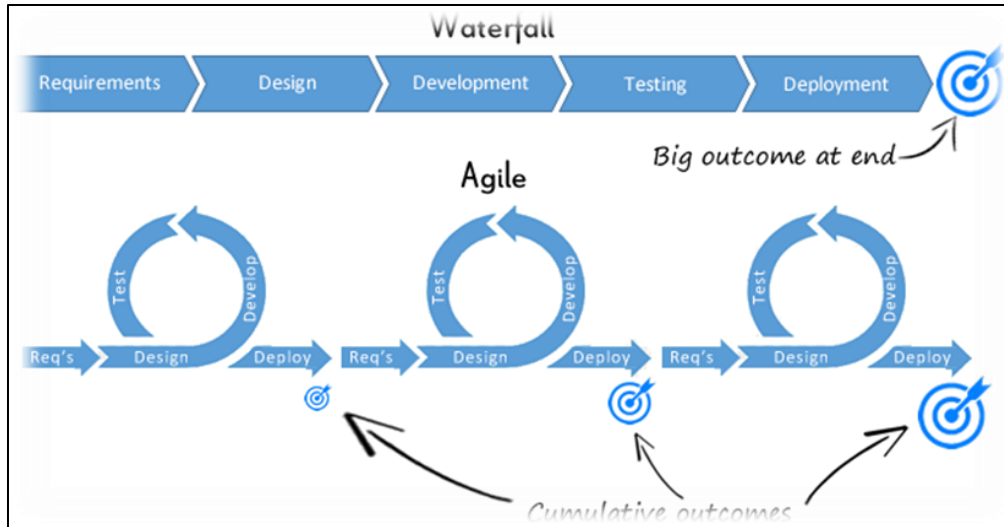


Fig. 2: The Agile Software Methodologies Are Mainly Used to SPRINT Technologies

#### A. What is SPRINTS

- Scrum projects make progress in a series of “sprints”
- Target duration is one month.
- Product is designed, coded, and tested during the sprint
- Plan sprint durations around how long you can commit to keeping change out of the sprint

The Waterfall model and agile model is two different types of models. In Waterfall model is also called linear sequential and systematic model the process of waterfall model is one step is completed after the second step is begin that is called step by step process model.

The agile software Development process model is different of waterfall model .The Agile model is mainly used to SPRINT methodology .the main purpose of Sprint method in Agile model is requirements, analysis, design , coding and testing all phases are complete after then delivered to the customer if customer is not happy with product and any completes to give the product return to the SPRINT Method and check the previous method if any mistakes is occur correct the mistakes and deliver to the customer .this is the Main advantage of the Agile software development Process But In Waterfall model this process is cannot Possible this is the main advantages of the agile software process model.

### IV. CONCLUSION

The Main conclusion of this paper is applying for the agile software method and use of the agile software methodology in waterfall model one step is completed after then cannot go to the previous step but use of the agile software method all step are completed Product are delivery to the customer if customer is not happy with product and if any find out mistakes any step used by SPRINT method in Agile software come to that step find and check the and correct the that mistake again delivery of product This is the main advantage and conclusion of the agile software Methodology

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