

Methodologies Overview

Methodology & Methods

Methodology is defined as "the analysis of the principles of methods, rules, and postulates employed by a discipline", "the systematic study of methods that are, can be, or have been applied within a discipline" or "a particular procedure or set of procedures". (Wikipedia)

System Development Methodologies

- ❖ System development methodology is a formalized approach to implementing the SDLC.

The software development methodology can be described using a list of steps and deliverables.

Structured Design Methodologies

- ❖ Formal step by step approach. Moving logically from one phase the next.

Waterfall Development

Moving forward from phase to phase...

Parallel Development

Instead of doing the the design and the implementation in a sequence, a general partial design for the whole project is implemented... the project is divided into small projects...

RAD Methodologies

- ❖ Rapidly getting some part of the system up and running. Getting users feedback to ensure the whole system progresses in the right direction.

Phased Development

The system is sequentially developed in separated versions.

Prototype Development

A prototype is first developed.

Throwaway Prototype Development

Throwaway prototypes are done at various points in the SDLC.

Agile Methodologies

- ❖ Programming centric methodologies.
- ❖ Few simple rules to follow.
- ❖ Eliminating much of the modeling and documentation overhead.
- ❖ Simple iterative development.

Lean Software Development

Eliminating waste while selecting the truly valued features only. Automated testings are developed the same time the code is written. Own much of its principles and practices to the Lean Enterprise Movement and the practices of companies as Toyota..

Methodologies Overview

05/27/08

© abelski

1

Methodology & Methods

Methodology is defined as "the analysis of the principles of methods, rules, and postulates employed by a discipline", "the systematic study of methods that are, can be, or have been applied within a discipline" or "a particular procedure or set of procedures". (Wikipedia)

05/27/08

© abelski

2

"Since students were not available to complete the survey about academic success, we changed our methodology and gathered data from instructors instead".

In this instance the methodology (gathering data via surveys, and the assumption that this produces accurate results) did not change, but the method (asking teachers instead of students) did. (cited from wikipedia)

System Development Methodologies

- ❖ System development methodology is a formalized approach to implementing the SDLC.

The software development methodology can be described using a list of steps and deliverables.

Structured Design Methodologies

- ❖ Formal step by step approach. Moving logically from one phase the next.

Waterfall Development

Moving forward from phase to phase...

Parallel Development

Instead of doing the the design and the implementation in a sequence, a general partial design for the whole project is implemented... the project is divided into small projects...

RAD Methodologies

- ❖ Rapidly getting some part of the system up and running.
Getting users feedback to ensure the whole system progresses in the right direction.

Phased Development

The system is sequentially developed in separated versions.

Prototype Development

A prototype is first developed.

Throwaway Prototype Development

Throwaway prototypes are done at various points in the SDLC.

RAD stands for Rapid Applications Development.

Agile Methodologies

- ❖ Programming centric methodologies.
- ❖ Few simple rules to follow.
- ❖ Eliminating much of the modeling and documentation overhead.
- ❖ Simple iterative development.

Lean Software Development

Eliminating waste while selecting the truly valued features only. Automated testings are developed the same time the code is written. Own much of its principles and practices to the Lean Enterprise Movement and the practices of companies as Toyota..

05/27/08

© abelski

6

Lean software development is one example only. There are many other Agile methodologies.