

Software Development Processes

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Abstract

This report is a short brief report about Software Development Processes. Software Development Processes are also called Software Development Methodologies. Firstly, some history of software development processes will be seen. Then many types of software development processes will be showed, such as Waterfall Development, Prototyping, Incremental development, Iterative and incremental development, spiral development, Rapid application development, Agile development, lightweight methodologies, and etc.

Keywords: History, Software Development Methodologies, Waterfall, Prototyping, Incremental

1 History

The software development methodology framework didn't emerge until the 1960s. According to Elliott (2004) the systems development life cycle (SDLC) can be considered to be the oldest formalized methodology framework for building information systems.

2 Waterfall Development

The waterfall model is a sequential development approach, in which development is seen as flowing steadily downwards through several phases, typically: Requirements analysis

resulting in a software requirements specification Software design Implementation Testing Integration, if there are multiple subsystems Deployment Maintenance

3 Prototyping

Software prototyping is the development approach of activities during software development, the creation of prototypes. It is not a standalone, complete development methodology, but rather an approach to handle selected parts of a larger, more traditional development methodology.

4. Incremental Development

Various methods are acceptable for combining linear and iterative systems development methodologies, with the primary objective of each being to reduce inherent project risk by breaking a project into smaller segments and providing more ease-of-change during the development process.

5. Spiral Development

[1]It combines some key aspect of the waterfall model and rapid prototyping methodologies, in an effort to combine advantages of top-down and bottom-up concepts.

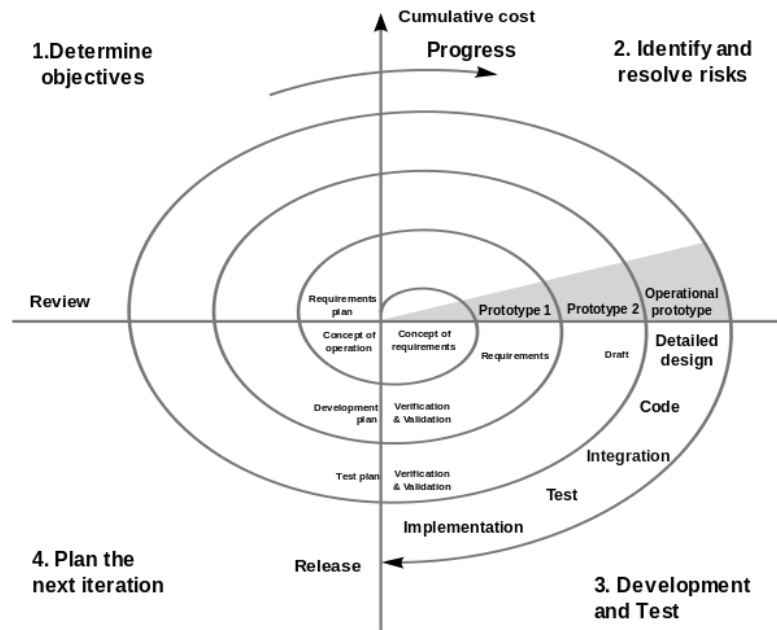


Figure 1: Spiral Development

Reference

[1]: Systems Analysis and Design Methods. Whitten, Jeffrey L.