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FACULTY OF EGINEERING

SOFTWARE ENGINEERING
LECTURE-05

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OUTLINE

- Agile Model
- Iterative Model and Big bang model
- Prototype Model
- MCQ
- References

Agile Model

Agile methodology is a practice which promotes continues interaction of development and testing during the SDLC process of any project. In the Agile method, the entire project is divided into small incremental builds. All of these builds are provided in iterations, and each iteration lasts from one to three weeks.

Any agile software phase is characterized in a manner that addresses several key assumptions about the bulk of software projects:

- It is difficult to think in advance which software requirements will persist and which will change. It is equally difficult to predict how user priorities will change as the project proceeds.
- For many types of software, design and development are interleaved. That is, both activities should be performed in tandem so that design models are proven as they are created. It is difficult to think about how much design is necessary before construction is used to test the configuration.
- Analysis, design, development, and testing are not as predictable (from a planning point of view) as we might like.

Iterative Model

It is a particular implementation of a software development life cycle that focuses on an initial, simplified implementation, which then progressively gains more complexity and a broader feature set until the final system is complete. In short, iterative development is a way of breaking down the software development of a large application into smaller pieces.

Big bang model

Big bang model is focusing on all types of resources in software development and coding, with no or very little planning. The requirements are understood and implemented when they come.

This model works best for small projects with smaller size development team which are working together. It is also useful for academic software development projects. It is an ideal model where requirements are either unknown or final release date is not given.

Prototype Model

The prototyping model starts with the requirements gathering. The developer and the user meet and define the purpose of the software, identify the needs, etc.

A 'quick design' is then created. This design focuses on those aspects of the software that will be visible to the user. It then leads to the development of a prototype. The customer then checks the prototype, and any modifications or changes that are needed are made to the prototype.

Looping takes place in this step, and better versions of the prototype are created. These are continuously shown to the user so that any new changes can be updated in the prototype. This process continue until the customer is satisfied with the system. Once a user is satisfied, the prototype is converted to the actual system with all considerations for quality and security.

MCQ

1. User documentation consists of:

A). Descriptions of the program logic in the form of flowcharts and the program listings

B). Training manuals, operations manuals, and reference manuals

C). Flow diagrams

D). All of these

2. The document listing all procedures and regulations that generally govern an organization is the:

A). Personal policy book

B). Administrative policy manual

C). Organization manual

D). Procedures log

3. A statement by statement description of a procedure is detailed in a:

A). Procedure log

B). Record layout

C). Systems flowchart

D). Written narrative

MCQ

4.A systems investigation may result from:

A). An analysis investigation

B). A manager's formal request

C). A scheduled systems review

D). All of these

5. On the feasibility committee, department representatives serve as:

A). Liaison to their departments

B). Direct users of the new system

C). Ready source of information

D). All of these

References

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