

FORMATIVE ASSESSMENT 8 (COMPULSORY DAY 4)

The different techniques implemented in agile development.

1. Agile Scrum Methodology.
2. Extreme Programming (XP)
3. Dynamic Systems Development Method (DSDM)
4. Feature Driven Development (FDD)

Key features of each technique.

Agile Scrum Methodology -

1. Better Visibility by involving users throughout the life of the product's development process
2. High Transparency by allowing various stakeholders to contribute and be completely involved throughout the project.
3. Allows Early Identification And Easy Resolution Of The Issues
4. Provides exceptional quality by ensuring that all the changes are supported and integrated into the current project leading to exceptional quality
5. Inexpensive with continuous integration and Iterative releases, this way businesses are sure to save money by involving stakeholders, lowering risk, embracing down and reaching the market quickly.

Extreme Programming (XP) -

1. Aims to produce higher quality software.
2. Higher quality of life for the development team.
3. XP is the most specific of the agile frameworks regarding appropriate engineering practices for software development.

Dynamic Systems Development Method (DSDM) -

Feature Driven Development (FDD) -

Advantages and disadvantages of each technique.

Advantages

Agile Scrum Methodology - Improved Customer Satisfaction, Flexibility and Adaptability, Lower Costs and Improved Quality and the time it takes to complete.

Extreme Programming (XP) - Lasts only for a few months at a time, uses an open communication which helps every team member to be always up-to-date, -feedback loop is reduced which reduces costs and quite teamwork orientated.

Dynamic Systems Development Method (DSDM) - This method provides easy access by developers to end-users, approach projects are delivered on time and within a specific budget and users are highly involved in the development of the system so they are more likely to get a grip on the software development project.

Feature Driven Development (FDD) - Flexible and adaptive to a changing environment, ensures customer satisfaction through active involvement of users, the least documentation out of the techniques and FDD also reduces risks of development since reviews are done on a regular basis.

Disadvantages

Agile Scrum Methodology - Requires experienced and committed members, may require changes to organisation to make it work, scalability and integration with Project/Program Management.

Extreme Programming (XP) - The XP projects are difficult to implement when the customer is away from the developmental team which slows down the feedback, the lack of documentation due to the constant changes which cannot be documented properly, the stress levels due to the amount of pressure by working with tight deadlines and mostly the code overcomes design due to the focus of XP, XP focuses on the code more than the design.

Dynamic Systems Development Method (DSDM) - Firstly, DSDM is costly to implement as it requires users and developers both to be trained to employ it effectively and secondly, is that it may not be suitable for small organizations or one-time projects.

Feature Driven Development (FDD) - More helpful for management than developer than developers who have to cope with ever changing requirements, quite time consuming and a lot of wastage of resources due to the constant change of requirements, the lack of documentation can be a disadvantage if some new members join in the middle of the launch and if the customer representative is not clear about the product features, the development process will go out of the track wasting the time and resources mentioned before.

When to implement each technique over the others

Agile Scrum Methodology -

Extreme Programming (XP) -

1. Dynamically changing software requirements
2. Risks caused by fixed time projects using new technology
3. Small, co-located extended development team
4. The technology you are using allows for automated unit and functional tests

Dynamic Systems Development Method (DSDM) -

Feature Driven Development (FDD) -

Key people in each methodology

Agile Scrum Methodology -

Extreme Programming (XP) -

The Customer - is responsible for making all of the business decisions regarding the project.

The Developer - is responsible for realizing the stories identified by the Customer

The Tracker - is responsible to keep track of relevant metrics that the team feels necessary to track their progress and to identify areas for improvement

The Coach - usually an outside consultant or someone from elsewhere in your organization who has used XP before and is included in your team to help mentor the other team members on the XP Practices and to help your team maintain your self discipline.

Dynamic Systems Development Method (DSDM) -

Feature Driven Development (FDD) -