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سكشن: 3

Lean Software Development

- Definition:

Lean Software Development (LSD) is an agile framework based on optimizing development time and resources, eliminating waste, and ultimately delivering only what the product needs. The Lean approach is also often referred to as the Minimum Viable Product (MVP) strategy, in which a team releases a bare-minimum version of its product to the market, learns from users what they like, don't like and want to be added, and then iterates based on this feedback

- Principles:

The main concept behind the Lean development methodology is that efficiencies can be applied, and waste can be managed at all levels of the process . The Lean software development process includes the following seven principles (Eliminate waste - Build in quality - Amplify learning - Delay commitment as long as possible - Deliver fast -Respect people - Optimize the whole)

- Advantage:

- *Collaboration:* Lean principles amplify learning and respect to encourage collaboration and knowledge sharing and avoid bottlenecks. Teams are empowered to make their own decisions and work together in the decision-making process.
- *Continuous improvement:* Lean includes what many call the modern software development process. The workflow incorporates constant communication with customers and steady feedback.

- *Efficiency:* Demand for software is exploding, and companies cannot deliver apps fast enough. The Lean approach eliminates waste and delivers software fast, making development organizations more efficient and cutting cost.

- *Flexibility:* The Lean methodology incorporates flexibility, while still prioritizing speed in the software development lifecycle.

- *Quality:* Lean's efficiency, continuous improvement, flexibility and collaboration results in an overall improvement in product quality and an increase in customer satisfaction.

- *Disadvantage:*

- *Heavily depends on the team involved, making it not as scalable as other frameworks*
- *Depends on strong documentation, and failure to do so can result in development mistakes*

- *why?:*

Many organizations have found the LSD methodology to be an excellent approach to software development because of its streamlining of the process and forcing the team to ruthlessly cut away any activity that doesn't directly affect the final product. But an organization must have an outstanding development team, and trust that team implicitly, for this approach to be successful.