**What is DevOps?**

DevOps is the combination of Pratices and tools used in IT industry to increases the Organization ability to deliver applications and services at a faster pace rather then the traditional process.

**What is DevOps culture?**

DevOps culture is all about a shared understanding between developers and operations, and sharing responsibility for the software they build by increasing transparency, communication, and collaboration across development, IT/operations, and "the business”.

What are software development lifecycle models?

**Introduction**

Software development life cycle (SDLC) is a series of [phases](http://melsatar.blog/2017/06/13/what-do-you-need-to-know-about-the-eight-software-development-phases/) that provide a common understanding of the software building process. that enables the production of high-quality, low-cost software, in the shortest possible production time.

WaterFall Model:

Waterfall model is know for it`s linear sequential flow. In which progress is seen as flowing steadily downwards (like a waterfall) through the phases of software implementation. This means that any phase in the development process begins only if the previous phase is complete. The waterfall approach does not define the process to go back to the previous phase to handle changes in requirement. The waterfall approach is the earliest approach and most widely known that was used for software development.

**V shape Model**

It is an extension of the waterfall model, Instead of moving down in a linear way, the process steps are bent upwards after the implementation and coding phase, to form the typical V shape. The major difference between the V-shaped model and the waterfall model is the early test planning in the V-shaped model.

**Spiral Model**

It is combining elements of both design and prototyping-in-stages. This model of development combines the features of the prototyping model and the waterfall model. The spiral model is favoured for large, expensive, and complicated projects. This model is separated by planning, risk assessment, and the building of prototypes and simulations.

**Incremental model**

It is developed to overcome the weaknesses of the waterfall model. It starts with initial planning and ends with deployment with the cyclic interactions in between. The basic idea behind this method is to develop a system through repeated cycles (iterative) and in smaller portions at a time (incremental), allowing software developers to take advantage of what was learned during the development of earlier parts or versions of the system. It can consist of mini waterfalls or mini-V-Shaped models.

**Agile**

It is based on iterative and incremental development, where requirements and solutions evolve through collaboration between cross-functional teams. It can be used with any type of project, but it needs more engagement from the customer and to be interactive. Also, we can use it when the customer needs to have some functional requirements ready in less than three weeks and the requirements are not clear enough. This will enable more valuable and workable pieces for software early which also increases customer satisfaction.

**What is difference between Waterfall and Agile model?**

Waterfall Model is known for its linear sequential flow like a waterfall through the phases of software implementation and it can only proceed to the next step until previous step is done and it cannot revert back to makes changes in the requirements rather then Agile is iterative and incremental approach where the client is involved in each step of the production for a better quality and customer satisfaction.

**Brief history of DevOps.**

Devops was created with the colabration of developers and IT operations when they felt the desperate need of the two operations together it was first started in between 2007 to 2008 and was given the term DevOps in 2009 by Patrick Debois.

**DevOps Days Conference, Arrested DevOps podcast (Google Podcast).**

**Download a Book: The DevOps HandBook and start reading it.**