**DevOps in Software Engineering**  
**Type:** Learning-Oriented  
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**Abstract:**

DevOps is a combination of development and operations. It is a software development method that stresses communication, collaboration and integration between software developers and Information technology (IT) professionals. It aims at establishing a culture and environment, where building, testing, and releasing software can happen rapidly, frequently, and more reliably. DevOps integration targets product delivery, quality testing, feature development and maintenance releases to improve reliability, security, faster development and deployment cycles.

Software Engineering has evolved with methodologies like agile, scrum which produce very fast development and delivery. Hence, we have more production releases than before but there is a lack of continuous delivery. DevOps refer to a set of practices that emphasize the collaboration and communication of both software developers and Information technologies professionals while automating the process of software delivery. This improvises the process of continuous delivery.

We will be focusing on the Working model of DevOps and the toolchain. Advantages of DevOps overcoming the challenges faced by agile and other processes. The real-time communications happen between developers and Operations and the challenges faced between them. We will also focus on how the continuous delivery is achieved with DevOps and problems with the continuous delivery.

The expected outcome of the review will be to gain the knowledge on DevOps tools, Continuous integration, Continuous delivery and Infrastructure as a Code (IAAC). The problems and solutions of code delivery with advanced software engineering techniques. Also, we will come to know the implementation of DevOps at various phases of software delivery and the advantages of using DevOps. The past and future statistics will be discussed for better understanding and a project walkthrough based on infrastructure availability.

**References:**


**Other References:**