

## **Agile methodologies using DevOps**

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Subject: Agile methodologies using DevOps

Topic: CI/CD implementation

Teaching Methodology: Peer Learning



Fig. students are guided to explain the trained topic to his/her co-students in the group

### **Innovative Teaching Methodology: Peer Learning**

**Peer learning** is a strategy where a group of students were trained first by the faculty and then the students are guided to explain the trained topic to his/her co-students in the group. This technique requires students to discuss the topic explained by their peer and should be able to solve the related topics. Discussing responses with peers serves to maximize participation, direct attention, and engage students in reading comprehension. At the end of the peer learning process, both student-tutee and student-tutor will be benefited even for the complex topic.

### **About the Topic: CI/CD implementation**

CI/CD allows organizations to ship software quickly and efficiently. CI/CD facilitates an effective process for getting products to market faster than ever before, continuously delivering code into production, and ensuring an ongoing flow of new features and bug fixes via the most efficient delivery method.

CI/CD is important because it's a new development, relying on leaps forward in process automation to radically reduce the software development lifecycle. With the increasingly rapid development of digital technologies, any tool that can speed up the time to market, whilst maintaining quality standards, will contribute to competitive advantage. It's also important because it signals a culture change.

As an integral tool of the DevOps approach it starts to break down the silos between Operations and Development teams. Traditionally, developers are happy when their code delivers the functionality required. However, if it breaks in production, the Operations team has to fix it, slowing down the whole process. In a DevOps culture, it matters less if the software worked on the developer's machine but not in production, because changes are rolled out quickly – using the CI/CD pipeline – and are small and reversible. CI/CD provides a testing and learning loop so that developers and ops are working collaboratively towards rapid deployment.