

**Instructor
Notes:**

DevOps

Lesson 00:

People matter, results count.



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Course Goals and Non Goals

- **Course Goals**
 - At the end of this program, participants will gain an understanding of:
 - DevOps Ecosystem
 - Automatic Source Code Management using GIT and Continuous Integration using Jenkins
 - Quality monitoring using Sonar
- **Course Non Goals**
 - This program does not attempt:
 - To demonstrate Continuous Deployment and Continuous Monitoring tools like puppet, CHEF and Nagios



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Pre-requisites

- List the Course Pre-requisites
 - Text Basic understanding of system concepts
 - Familiarity with Command Line Interface(CLI)
 - Familiarity with a Text Editor
 - Experience with managing systems/applications/infrastructure or with deployments/automation
 - IT experience

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Intended Audience

- This course is suitable for
 - System Administrators
 - Developers
 - IT Managers
 - IT Operations team members who want to learn more about DevOps.



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Day Wise Schedule

- Day 1
 - Lesson 1:Introduction to DevOps
 - Lesson 2: Introduction to Cloud
 - Lesson 3: GitHub
- Day 2
 - Lesson 3: GitHub
 - Lesson 4:Jenkins
- Day 3
 - Lesson 6 :Sonar
 - Lesson 7: DevOps with Blue Mix

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- Lesson 1: Introduction to DevOps
 - 1.1. What is DevOps
 - 1.2. Evolution of DevOps
 - 1.4. Agile Methodology
 - 1.5. Why DevOps
 - 1.6. Agile vs DevOps
 - 1.7. DevOps Principles
 - 1.8. DevOps Lifecycle
 - 1.9. DevOps Tools
 - 1.10. Benefits of DevOps
 - 1.11. Continuous Integration and Delivery pipeline
 - 1.12. Use-case walkthrough

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- Lesson 2: Introduction to Cloud
 - 2.1. What is Cloud
 - 2.2. What is Cloud Computing
 - 2.3. Deployment Models
 - 2.4. Cloud Computing Services
 - 2.5. Advantages
 - 2.6. Disadvantages
 - 2.7. Cloud Storage
 - 2.8. DevOps and Cloud
- Lesson 3: GitHub
 - 3.1: Introduction to Git
 - 3.2: Version control
 - 3.3: Repositories and Branches
 - 3.4: Working Locally with GIT

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- 3.5: Working Remotely with GIT
- Lesson 04:Jenkins
 - 4.1: Introduction to CI
 - 4.2: Jenkins Introduction
 - 4.3: Creating Job in Jenkins
 - 4.4: Adding plugin in Jenkins
 - 4.5: Creating Job with Maven & Git
- Lesson 05:Sonar(SonarQube)
 - 5.1: introduction of Sonar
 - 5.2: Analyzing Java code with Sonar
 - 5.3: Integrating Jenkin with Sonar
 - 5.4: Analyzing Maven code ,Jenkin with Sonar

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- Lesson 06 : DevOps IBM Bluemix
 - 6.1:Introduction to IBM Bluemix
 - 6.2:Working with Bluemix
 - 6.3:Bluemix with DevOps
 - 6.4:other tools of devops

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References

- http://www.bogotobogo.com/DevOps/DevOps_CI_CD_Pipeline_Sample.php
- <https://dzone.com/articles/an-example-of-a-continuous-integration-delivery-pi>
- https://www.edureka.co/blog/devops-tutorial?utm_source=blog&utm_medium=left-menu&utm_term=DevOps%20Tutorial%20:%20Introduction%20To%20DevOps
- <http://www.guru99.com/cloud-computing-for-beginners.html>
- <https://www.slideshare.net/Agarwaljay/cloud-computing-simple-ppt-41561620>



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Next Step Courses (if applicable)

- Containerization using Docker
- Puppet
- Continuous Monitoring using Nagios

