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# DevOps/CICD Demo with Anypoint Platform, GitHub and Jenkins

This recording and script walks through a simple but powerful demo that can be run from an SC's laptop demonstrating our CICD story. By Hari Shankar, Pareej Pradhan, Rick Bansal

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## **DevOps Automation Demo Script**

This demonstration walks us through a CI-CD automation of a Mule project deployment using Jenkins. We go end to end from project creation to GitHub check-in, to a trigger based deployment into CloudHub.

We start by looking at the development environment in Anypoint Studio. The first step here is to install the GitHub plugin and be able to check in/checkout Mule projects from within studio.

Once the plugin is installed, we will connect to the GitHub repo from within Studio.

#### **Studio Project Creation**

At this point we can create a new project – Jenkins-demo-mule4.

- In the canvas, drag http listener. In the configuration, specify /providers as the resource
- Drag the database connector onto the canvas and configure the MySQL connection as shown in the video. In the SQL statement, copy and paste the following:

#### SELECT \* from MedicalProvider

- Drag a Transform Message connector and use this to transform the response to a JSON document.
- Once this is done, add a dependency about CloudHub deployments in the project's pomn.xml according to: <a href="https://blogs.mulesoft.com/biz/mule/your-new-maven-friend-the-mule-maven-plugin-2-0/">https://blogs.mulesoft.com/biz/mule/your-new-maven-friend-the-mule-maven-plugin-2-0/</a>

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• Check code into GitHub

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#### **Jenkins Setup**

- Now go to Jenkins -> Manage Jenkins -> global tool configuration
- Ensure JDK 8 is configured.
- Ensure the correct maven installation is configured.
- Set up a new project in Jenkins of type Maven Project
- Provide the GitHub repo URL during configuration
- Once configured, click on build now triggers build, deploys into CloudHub.

We have two options to trigger deployments

- Call Jenkins Webhooks in GitHub during check-in
- Poll from Jenkins periodically.

For this demo, we are using the polling method.

Once deployment is done, go to the CloudHub URL with the providers resource – this will give us a list of medical providers

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#### **Build Automation**

Now lets set up a poll based trigger in Jenkins that will kick off automatically every few seconds.

To set up polling in Jenkins, go to Project -> Configure – Build Triggers – Poll SCM. Follow the steps to set up polling.

Jenkins looks for code changes before triggering a build. In order to trigger a build, lets make a change to the project and check in the new code.

- In the Mule Project, change the resource path from /providers to /mp
- Lets make the label more descriptive as well to something like Select Medical Providers
- Check in the code into GitHub.

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