

Back to Week 1

imes Lessons

This Course: Advanced Machine Learning and Signatevocessingt

Here a summary what you will do.

- 1. You'll create a free (forever free, not a trial) account on the IBM Cloud (no credit card required)
- 2. You'll deploy a little application you can start on your phone (it is completely browser-based) to access the accelerometer sensors in your phone
- 3. This application will stream this time-series to the cloud using am MQTT message broker. We are using the MQTT message broker from the IBM Watson IoT Platform here, but any MQTT message broker will do
- 4. Using NodeRED (which you'll deploy using one-click deployment) to the IBM Cloud we are creating a flow subscribing to those MQTT messages and streaming those into Apache CouchDB NoSQL database (here again we use a free IBM Cloud offering called Cloudant, but any database which is compatible to Apache SparkSQL (lots of) will do)). NodeRED is an open source Node.js based data flow editor perfectly fitting real-time data integration presses (ETL Extract Transform Load)
- 5. Once you've streamed data into Cloudant we use a jupyter notebook for triggering an Apache SparkSQL job in order to access the data. From there you'll also submit the solution (in this case the data frame you've obtained) to the grader. The jupyter and Apache Spark environment are free services on the IBM Cloud, but again, any jupyter and Apache Spark environment will do fine.

Please understand that in the discussion forum we can only support learners on the IBM Cloud – since we know this environment very well and it is the same for all learners.

The following videos will show you how to setup the environment of the course. But it is highly recommended to follow the instructions below since those are the most up-to-date. Also, there is a little warmup programming assignment which everybody should pass very easily.

1. Setup an IBM Cloud account

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http://nopanic.ai/coursera

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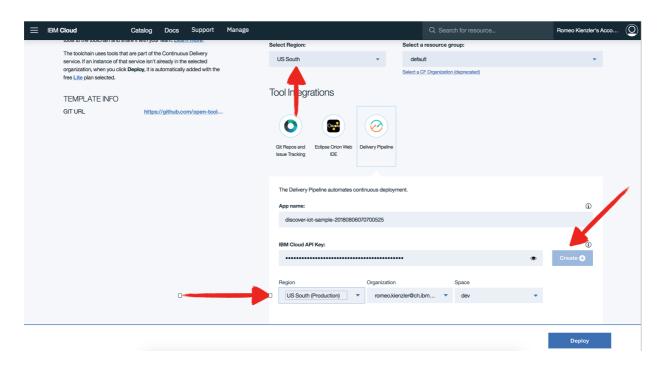
2. Install NodeRED - the visual open source data integration platform, please follow this document:

- Open this repository and click on "Deploy to IBM Cloud"
- Then open this <u>repository</u> and click on "peploy to IBM Cloud"

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Then click on "Deli



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You can check the progress on the deployments by clicking on the Delivery Pipeline Tiles on both Deployment Tool-chains.

3. To setup WS (Watson Studio) account, which gives you pre-installed jupyter notebooks, ApacheSpark and much more, please follow the link below:

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Please select the option "Log in to activate Watson" after clicking on "Sign Up"

Have an IBM Cloud account?

By clicking Log in, you agree to our terms and that you have read our Data Use Policy, including our Cookie Use.

Log in to activate Watson

	http://nopanic.ai/spark2ws	
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