Real Life Learning Exercise - Optional

https://community.sap.com/t5/technology-blogs-by-members/running-your-own-blockchain-on-the-sap-btp-kyma-trial-a-hands-on-how-to/ba-p/13724580

Step 1: set up the SAP BTP Kyma Runtime Trial (40 minutes)

my console url:

https://dashboard.kyma.cloud.sap/?kubeconfigID=B847C443-969E-4FC5-A4D8-CBE54AA2442E

APIServerURL:

https://api.e9632ce.kyma.ondemand.com

KubeconfigURL:

https://kyma-env-broker.cp.kyma.cloud.sap/kubeconfig/B847C443-969E-4FC5-A4D8-CBE54AA2442E

Name:

dadbf688trial

Trial account expiration details:

Your cluster expires in 14 days.

The Kyma Trial Dashboard

Step #1 is completed, you now have a SAP BTP Kyma Trial Account and you are able to access the SAP Kyma Trial Dashboard and you have the Urls to work with your SAP Kyma Trial Container.

Step 2: Get atSigns and atKeys (20 minutes)

Go to the atSign registrar website and create an Account and get 2 "free" atSigns, this is the url

https://my.atsign.com/choose-atsign/6711ef36cddd9e71be7a18b795dc1c8fac0fe9afe949a49383d79e5e366c5ae6

My atSigns: @coffeeliving6968

Download, install and activate using atWavi App

Get atKey and step #2 is completed.

Step 3: Deploy 2 enterprise blockchain servers to your SAP BTP Kyma Trial Runtime (21 minutes)

Create two yaml file (atkrypto-v1.yaml and atkrypto-v2.yaml)

Upload YAML

Drag your file here or click to replace
atkrypto-v1.yaml uploaded

or paste it here:

```
1   kind: Namespace
2   apiVersion: v1
3   metadata:
4     name: atkrypto-v1
5     labels:
6       name: atkrypto-v1
7
8   ---
9   kind: PersistentVolumeClaim
10  apiVersion: v1
11  metadata:
12    name: atkrypto-v1
13    namespace: atkrypto-v1
14    labels:
15      app: atkrypto-v1
16  spec:
17    accessModes:
18      - ReadWriteOnce
19    resources:
20      requests:
21        storage: 1Gi
22
23  ---
24  apiVersion: apps/v1
```

You can upload multiple resources, separated by "---" in your YAML file. If the resource already exists, it will be updated. Otherwise, a new one is created. If you don't specify a namespace, the **default** is used.

Uploaded Resources

Validate resources: ✓

5 resources will be created.

>   **Namespace atkrypto-v1** ✓

>   **PersistentVolumeClaim atkrypto-v1** ✓

>   **StatefulSet atkrypto-v1** ✓

>   **Service atkrypto-v1-svc** ✓

>   **APIRule atkrypto-v1-api** ✓

Upload Cancel

and then open the link related to atkrypto-v1-api and v2 rules and make a note of the url

https://atkrypto-v1.e9632ce.kyma.ondemand.com

https://atkrypto-v2.e9632ce.kyma.ondemand.com

Step 3 is completed.

Step 4: upload the atKey for each of the enterprise Blockchain server instances (10 minutes)

To upload the atKeys you have to modify the API URLs as follows:

atKey Uploads atkrypto-v1

API URL: https://atkrypto-v1.e9632ce.kyma.ondemand.com/upload.html

atKey Uploads atkrypto-v2

https://atkrypto-v2.e9632ce.kyma.ondemand.com/upload.html

All of the steps in Kyma are finished at this point and we are ready to start each Blockchain Instance.

To do this you need to use Postman to send API commands to your Blockchain Instances, so the next step

will be to install Postman.

Step #4 is COMPLETED

Step 5: Get Postman (around 10 minutes)

Go to Postman website https://www.postman.com/ and sign-up and then you can use the free version of Postman.

and once you have signed up you will be able to download Postman and install it on your Computer

https://www.postman.com/downloads/

Install Postman and sign in

Step 5 is completed

Step 6: Start your enterprise Blockchain server instances on SAP BTP Kyma Trial (15 minutes)

You will need the API Urls for your Blockchain Instances

atkrypto-v1
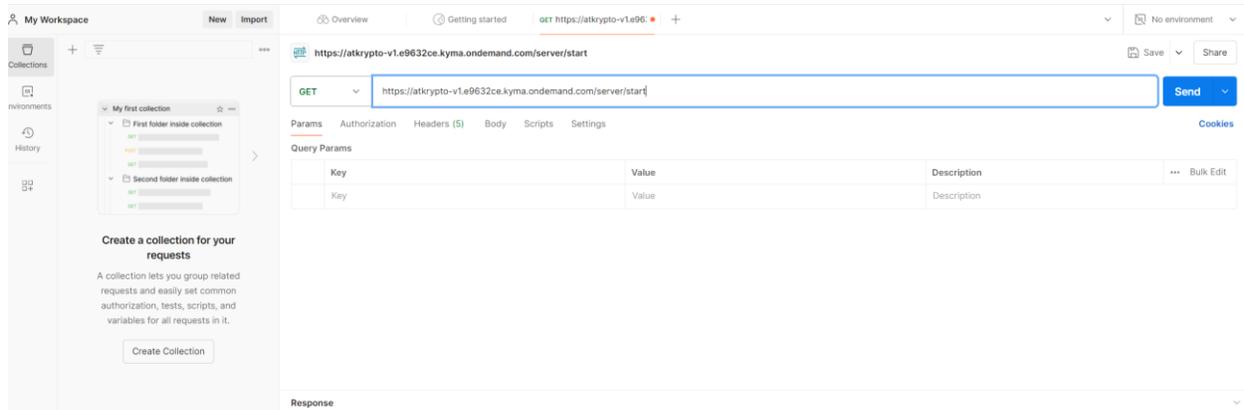
https://atkrypto-v1.e9632ce.kyma.ondemand.com

atkrypto-v2

https://atkrypto-v2.e9632ce.kyma.ondemand.com

First we need to start the atKrypto-v1 server through POST to /server/start

https://atkrypto-v1.e9632ce.kyma.ondemand.com/server/start

We can verify this by blockchain API GET /blockchain

https://atkrypto-v1.e9632ce.kyma.ondemand.com/blockchain

Now we need to do that same again and start the second Blockchain Server Instance atkrypto-v2

https://atkrypto-v2.e9632ce.kyma.ondemand.com/server/start

https://atkrypto-v2.e9632ce.kyma.ondemand.com/blockchain

Step 6 is completed

Step 7: Create a Blockchain (around 30 minutes)

we will need Postman again, pick one of the Blockchain Server Instances, I will take atkrypto-v1

atkrypto-v1 API Url is https://atkrypto-v1.e9632ce.kyma.ondemand.com

Now we need the Create a Blockchain API

To create first Blockchain we can use /blockchain API with POST request and raw body in JSON format

describing the name of your blockchain as following:

{

  "name": "My first KYMA Blockchain"

}

POST   https://atkrypto-v1.e9632ce.kyma.ondemand.com/blockchain   Send

Params   Authorization   Headers (7)   Body •   Scripts   Settings   Cookies

○ none   ○ form-data   ○ x-www-form-urlencoded   ● raw   ○ binary   ○ GraphQL   JSON ⌄   Beautify

```
1  {
2    "name": "My first KYMA Blockchain"
3  }
4
```

Body   Cookies   Headers (9)   Test Results   Status: 201 Created   Time: 103 ms   Size: 435 B   Save as example

Pretty   Raw   Preview   Visualize   JSON ⌄

```
1  {
2    "id": "9b45a1e7-8643-4cfa-859b-145422a64222",
3    "name": "My first KYMA Blockchain",
4    "length": 0,
5    "lastBlock": null,
6    "pendingBlock": null
7  }
```

{

   "id": "9b45a1e7-8643-4cfa-859b-145422a64222",

   "name": "My first KYMA Blockchain",

   "length": 0,

   "lastBlock": **null**,

   "pendingBlock": **null**

}