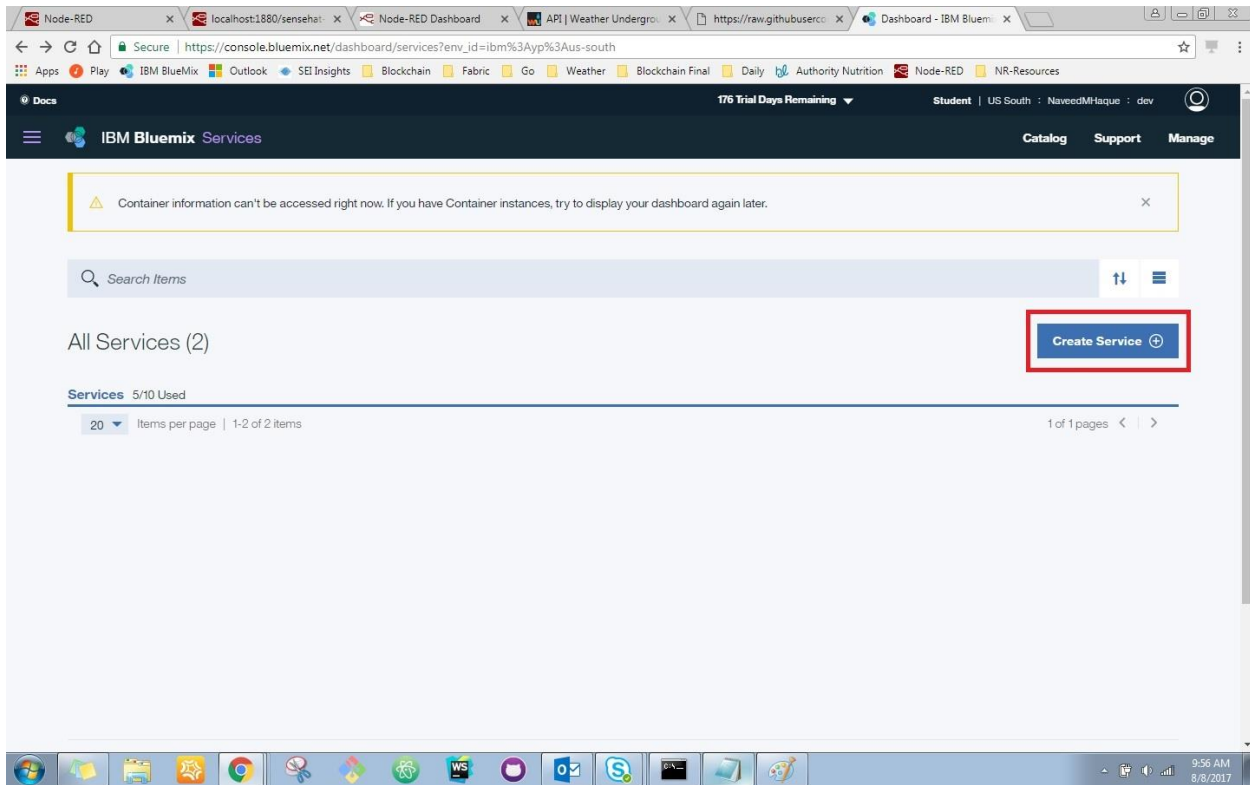
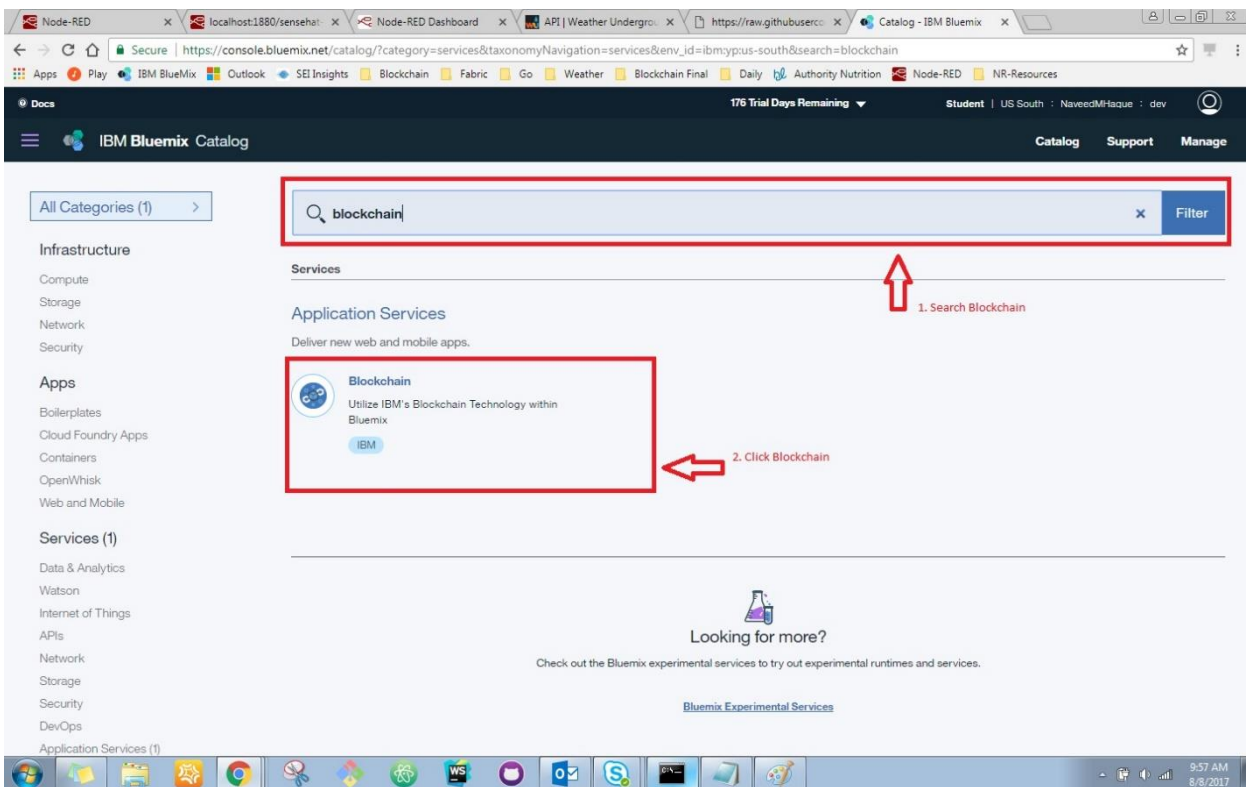


## Instruction For Creating Blockchain on Bluemix

1. Create IBM Bluemix Account
2. Go to IBM Bluemix Dashboard
3. Create Service



## 4. Search Blockchain



## 5. Finalize Creation

The screenshot shows the IBM Bluemix Catalog page for the Blockchain service. The page includes a description of the service, a form to configure the service, and a 'Create' button. The form fields are: Service name: Blockchain-ef, Credential name: Credentials-1, Select region to deploy in: US South, Choose an organization: NaveedMHaque, Choose a space: dev, and Connect to: Leave unbound. A red arrow points to the 'Create' button with the text 'Leave everything as is and click create'.

View all  
Blockchain

IBM Blockchain is the first managed service for Hyperledger Fabric, making it fast and easy to build, run and govern business networks while ensuring high levels of security, privacy, and performance. The service enables the creation of blockchain business networks with ownership and control distributed across different organizations. New networks can be bootstrapped by setting up governance rules, inviting members, and configuring network policies. Operators can use dashboards and governance tooling to run and maintain the network.

Service name:  
Blockchain-ef

Credential name:  
Credentials-1

Select region to deploy in:  
US South

Choose an organization:  
NaveedMHaque

Choose a space:  
dev

Connect to:  
Leave unbound

Features

Need Help?  
Contact Bluemix Sales

Estimate Monthly Cost  
Cost Calculator

Create

## 6. Copy API URL information

The screenshot shows the IBM Bluemix Application Services page for the Blockchain service. The page displays the service credentials in JSON format. A red arrow points to the 'Service credentials' link in the left sidebar. Another red arrow points to the 'View credentials' link in the 'ACTIONS' column of the credentials table. A third red arrow points to the 'api\_url' field in the JSON snippet, which is highlighted with a red box. The JSON snippet is as follows:

```
{
  "type": "peer",
  "network_id": "8a61e4ff231c4f6ea171587da8204c0a",
  "container_id": "fb983585918cc4709dd7650aba81c105b6bde79ee4cd9b2c5a19bbce57bb64ad",
  "id": "8a61e4ff231c4f6ea171587da8204c0a-vp3",
  "api_url": "http://8a61e4ff231c4f6ea171587da8204c0a-vp3.us.blockchain.ibm.com:5004",
  "discovery_host": "8a61e4ff231c4f6ea171587da8204c0a-vp1.us.blockchain.ibm.com",
  "discovery_port": 30004
}
```

## 7. Follow these directions as is: <https://github.com/IBM/HyperledgerFabric-on-LinuxOne#part-3--utilizing-blockchain-api-through-nodered-1>

- Steps 19-27, replace <http://xxx...:3000> with API URL information that you copied

## 8. Edit the temperature readings to read wind readings in Dashboard

1. Click on Dashboard

2. Navigate down to "Cache Weather"

3. Line 3: After "observation," change to "wind\_gust\_mph"

4. Line 4: After "observation," change to "wind\_mph"

```
1 global.set('weather-observation',msg.payload);
2 msg.payload = {
3   feelslike: msg.payload.current_observation.wind_gust_mph,
4   outside: msg.payload.current_observation.wind_mph
5 };
6 return msg;
```

## 9. Edit the temperature readings to read wind readings in Blockchain

1. Select Blockchain tab

2. Navigate to getRecommendation

3. After "observation," change to "wind\_mph"

```
1 tid = global.get('teamName');
2 time = new Date().toISOString();
3 weather = global.get('weather-observation');
4 asset = "resource:org.acme.sample.Sensor#teamid:"+tid;
5 transid = global.get('lastTransID');
6 msg.payload = {
7   $class: "org.acme.sample.CompareWeather",
8   "transactionId": transid,
9   "recommend": asset,
10  "outsideTemp": weather.current_observation.wind_mph,
11  "feelslike": weather.current_observation.feelslike_c,
12  "timestamp": time
13 };
14 return msg;
```